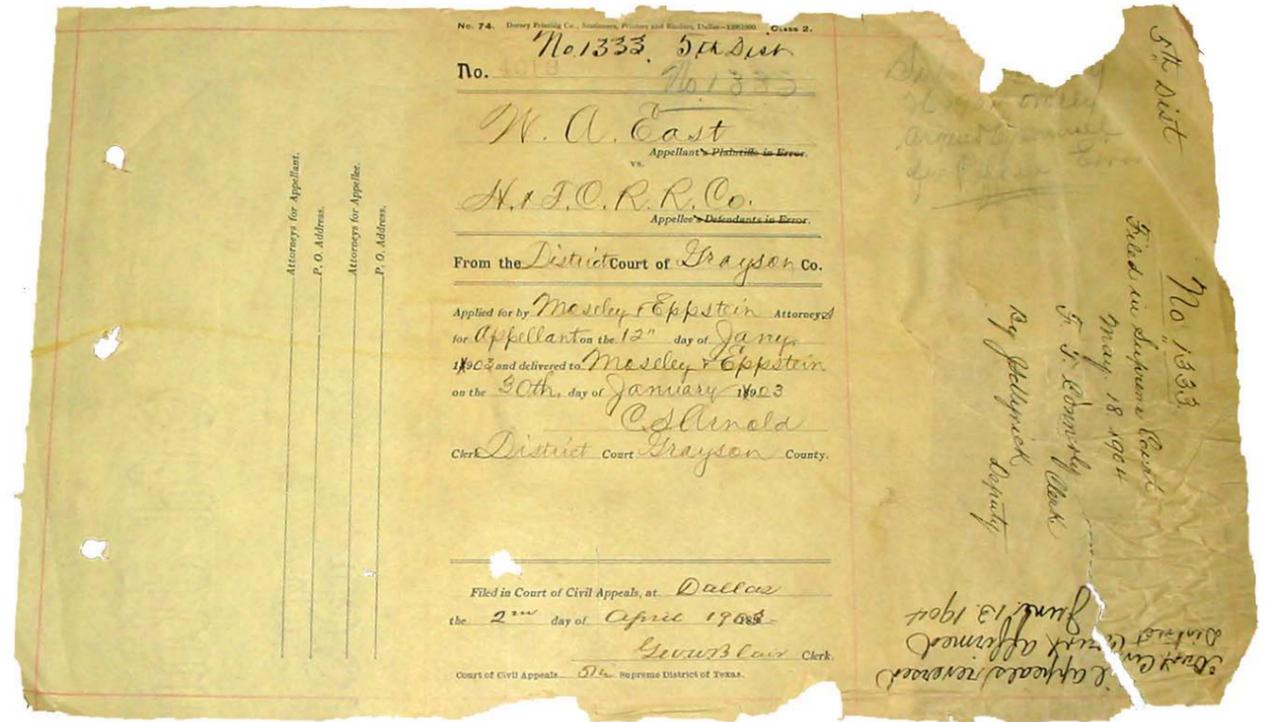


*100 Years of Rule of Capture:
From East to Groundwater Management*



Report 361

edited by
William F. Mullican, III and
Suzanne Schwartz

Texas Water Development Board
P.O. Box 13231, Capitol Station
Austin, Texas 78711-3231
June 2004



Report 361

100 Years of Rule of Capture: From East to Groundwater Management

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*100 Years of Rule of Capture:
From East to Groundwater Management*

Symposium Sponsored by the Texas Water Development Board
June 15, 2004, Austin, Texas

Speakers

Welcome and Introduction

Mr. E. G. Rod Pittman, Chairman, TWDB
Mr. Kevin Ward, Executive Administrator, TWDB

Morning moderator: Mr. Bill Mullican, TWDB

History and Evolution of the Rule of Capture

Mr. Harry Grant Potter, III, private law practice

What Should Texas Do About the Rule of Capture?

Prof. Corwin Johnson, The University of Texas at Austin

The Regulatory Dance: Rule of Capture and Chapter 36

Mr. Michael Booth, Booth, Ahrens & Werkenthin, P.C.
Mr. Doug Caroom, Bickerstaff, Heath, Smiley, Pollen, Keever, &
McDaniel

Afternoon moderator: Ms. Suzanne Schwartz, TWDB

Groundwater is no Longer Secret and Occult

Dr. Robert Mace, TWDB

Water Follies: Groundwater Pumping and the Fate of America's Fresh Waters

Dr. Robert Glennon, University of Arizona

The Next 100 Years (panel discussion)

The Honorable Ken Armbrister, Chairman, Senate Committee on
Natural Resources (invited)
Mr. Greg Ellis, Edwards Aquifer Authority
Mr. Ken Kramer, Sierra Club
Mr. C. E. Williams, Panhandle Groundwater Conservation District

The State of Texas,

To the Sheriff or Any Constable of Grayson County, Greeting;

You are Hereby Commanded, by delivering to W. A. East

_____ if found in your County, or to Mosely & Epstein

attorney of record, the accompanying certified copy of this writ, to summons said W. A. East

to be and appear before the Supreme Court of the State of Texas, now in session at Austin, Texas, on Thursday, the 26th day of May 1904, provided this writ shall have been served ten days prior to that time; but if this writ shall not have been

so served, then on the first Thursday next ensuing, ten days after such service, pursuant to a writ of error filed in the Clerk's Office of the Court of Civil Appeals for the Fifth

Supreme Judicial District, and issued on the 3rd day of May 1904, wherein

Houston & Texas Central Railroad Company is plaintiff in error,

and you are defendant in error, to show cause, if any there be, why the judgment rendered against the said plaintiff in error should not be corrected, and why speedy justice should not be done to the parties in that behalf. And of this writ, with your

action endorsed thereon, make due return within ten days from the date hereof.

Witness, the Hon. REUBEN R. GAINES, Chief Justice of the Supreme Court of Texas, the 3rd day of May in the year of

our Lord one thousand nine hundred and Four.

F. J. Connerly
Clerk.

By Jellynick
Deputy.

I Hereby Certify, that the above is a true and correct copy of the original.

F. J. Connerly
Clerk of the Supreme Court of Texas.

By Jellynick
Deputy.

The cover is a color digital image of the Appeal to the Court of Civil Appeals, 5th Supreme Judicial District filed April 2, 1903. This document can be viewed at the Texas State Archives in Austin, Texas.

The preceding page is a scanned image of the summons to Mr. East issued May 3, 1904 to appear before the Texas Supreme Court.



Texas Water Development Board

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Published and distributed
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Texas Water Development Board
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Austin, Texas 78711-3231

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William F. Mullican, III, Deputy Executive Administrator	Office of Planning, Texas Water Development Board

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Mr. C. E. Williams, Panhandle Groundwater Conservation District

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Note from the Editors:

June 15, 2004

To Texans Interested in Groundwater,

On behalf of the Texas Water Development Board, we want to welcome you to the *100 Years of Rule of Capture: From East to Groundwater Management* symposium. Whether your interests are in groundwater policy, groundwater management, groundwater science, or just a general fascination with this most precious natural resource, it is our goal that your interests in groundwater benefit from the presentations and discussions (and probable debates) planned for this symposium. While public debate in Texas on the Rule of Capture has been going on throughout the last 100 years, the intensity and passion of the debate seems to have greatly increased over the last decade. This was especially evident with passage of Senate Bill 1 in 1997, Senate Bill 1911 in 1999, Senate Bill 2 in 2001, and the most recent deliberations by the Senate Select Committee on Water Policy in 2003-2004. As we pause to reflect on the 100 years (and two days) that have passed since the landmark *Houston & Texas Central Railway Co. vs East* Supreme Court decision handed down on June 13, 1904, one can only wonder what the future holds. We have invited a diverse group of groundwater experts to present their own ideas, both verbally and in writing, on the past, present, and future of groundwater law in Texas. Perhaps ideas brought forward as part of this symposium will have a significant effect on what the future will hold.

This symposium volume has been prepared and made available to the public for two reasons. First, we want to offer those not able to attend the symposium an opportunity to benefit from the materials, discussions and issues that are to be presented. Second, we believe this symposium volume will make a powerful reference document for students of groundwater for many years to come.

In order to ensure a broad, balanced, and relevant list of both topics and speakers for this symposium, we sought out prominent members of the groundwater community to serve on the *100 Years of Rule of Capture: From East to Groundwater Management* Advisory Board. What an honor it was for us to be able to work with the likes of Corwin Johnson, Professor Emeritus, The University of Texas Law School; Andrew Sansom, Executive Director, Institute for Sustainable Water Resources, Texas State University; John M. Sharp, Professor, Department of Geological Sciences, The University of Texas at Austin; and Jace Houston, General Counsel, Harris-Galveston Coastal Subsidence District, during the development of this symposium. We also want to offer our sincere appreciation to all of the speakers who took the time that was required out of their busy schedules to prepare the high-quality papers included herein. Finally, we want to recognize and extend our special thanks to Robert Mace, Edward Angle, and Cynthia Ridgeway. We would also like to thank Ruben Ochoa, Carla Daws, Sissie Stacy, Ann Omoegbele, Angela Freytag, Deborah Reyes, Ryan Long, Kelly Burton, Ruben Hernandez, Mike Parcher, and Tina Newstrom for their remarkable dedication to this special effort. Without their persistence and professionalism, neither the symposium nor Report 361 could have been possible.

William F. Mullican III
Deputy Executive Administrator
Texas Water Development Board

Suzanne Schwartz
General Counsel
Texas Water Development Board

In memory of Corwin W. Johnson, 1917-2004, whose insight and knowledge of water law in the State of Texas was greatly appreciated and recognized by TWDB staff. The TWDB is honored that Corwin Johnson participated in the Advisory Board panel for the symposium, contributed a paper for this volume, and spoke at the symposium, his last public speaking engagement. He shall be missed.

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Chapter 1

History and Evolution of the Rule of Capture

Harry Grant Potter, III
Williams-Bailey Law Firm, L.L.P.

Overview

The common-law rule regarding groundwater is the rule of capture or the English rule, which essentially provides that, absent malice or willful waste, landowners have the right to take all the water they can capture under their land and do with it what they please, and they will not be liable to neighboring landowners even if in so doing they deprive their neighbors of the water's use.¹ The rule of capture is in contrast to "reasonable use" or the "American rule," which provides that the right of a landowner to withdraw groundwater is not absolute, but limited to the amount necessary for the reasonable use of his land, and that the rights of adjoining landowners are correlative and limited to reasonable use.²

Since its adoption in Texas 100 years ago, the rule of capture has been widely criticized.³ Today, Texas stands alone as the only western state that continues to follow the rule of capture.⁴

Houston & Texas Central Railroad Co. v. East (1904)

The Texas Supreme Court adopted the rule of capture in the landmark decision *Houston & Texas Central Railroad Co. v. East*.⁵ In *East*, a railroad company dug a well on its property in order to supply water for use in its locomotives and machine shops. The well, which produced 25,000 gallons of water daily, dried up the well of a neighboring landowner, who used his well for household use. The landowner sued the railroad for damages he sustained as a result of the dried well. The Texas Supreme Court first noted that English common law applied the rule of capture, which was first articulated in 1843 in *Acton v. Blundell*⁶ as follows: "That the person who owns the surface may dig therein, and apply all that is there found to his own purposes at his free will and pleasure; and that if, in the exercise of such right, he intercepts or drains off the water collected from the underground springs in his neighbor's well, this inconvenience to his neighbor

¹ See *Sipriano v. Great Spring Waters of America, Inc.*, 1 S.W.3d 75, 76 (1999).

² See *Friendswood Development Co. v. Smith-Southwest Industries*, 576 S.W.2d 21, 25 (1978).

³ *Id.* at 28-29 (1978).

⁴ *Sipriano*, 1 S.W.3d. at 82, fn. 14.

⁵ 98 Tex. 146, 81 S.W. 279 (1904).

⁶ 152 Eng. Rep. 1223 (Ex. Ch. 1843), *quoted in East*, 81 S.W. at 280.

falls within the description of *damnum absque injuria*¹, which can not become the ground of an action.”²

In *East*, the Court faced a choice between the rule of capture and its counterpart, the rule of reasonable use, which is also known as the American Rule. The Court chose the rule of capture based on two public policy considerations: (1) “Because the existence, origin, movement and course of such waters, and the causes which govern and direct their movements, are so secret, occult and concealed that an attempt to administer any set of legal rules in respect to them would be involved in hopeless uncertainty, and would therefore be practically impossible, and (2) “Because any such recognition of correlative rights would interfere, to the material detriment of the commonwealth, with drainage of agriculture, mining, the construction of highways and railroads, with sanitary regulations, building, and the general progress of improvement in works of embellishment and utility.”³

Without deciding the issue, the Court left open the possibility of liability in the case of malice or wanton conduct.⁴ More importantly, the Court acknowledged the power of the legislature to regulate groundwater: “*In the absence...of positive authorized legislation*, as between proprietors of adjoining lands, the law recognizes no correlative rights in respect to underground waters percolating, oozing, or filtrating through the earth.”⁵

Article 16, §59 (Conservation Amendment)

Following droughts in 1910 and 1917, Texas voters added the Conservation Amendment in 1917.⁶ The Amendment declared that conservation of the state’s natural resources, including water, are public rights and duties. It further authorized the Legislature to pass all appropriate laws:

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.

TEX. CONST., Art. XVI, § 59(a).

This constitutional amendment would become critical to water law issues confronting the courts from the time of its passage to the present and would form the basis for much of the judicial branch’s reluctance to interfere with what it viewed as a legislative prerogative.

¹ A loss or damage without injury.

² *East*, 81 S.W. at 280.

³ *Id.* at 281.

⁴ *Id.* at 282.

⁵ *East*, 81 S.W. at 280 (quoting *Frazier v. Brown*, 12 Ohio St. 294).

⁶ See *Barshop v. Medina County Underground Water Conservation Dist.*, 925 S.W2d 618, 626 (Tex. 1996).

City of Corpus Christi v. City of Pleasanton (1955)

Half a century after *East* — at a time when other jurisdictions were abandoning the English rule in favor of the “reasonable use” rule¹ — the Texas Supreme Court reaffirmed the rule of capture in *City of Corpus Christi v. City of Pleasanton*.²

The City of Pleasanton sued the Lower Nueces River Supply Company and the City of Corpus Christi to enjoin them from pumping water from wells and allowing them to flow more than 100 miles to Corpus Christi claiming that it constituted waste and for damages for materially affecting the water levels in plaintiff’s wells. The Lower Nueces River Supply Company contracted with the City of Corpus Christi to supply water from four of its wells located 118 miles from Corpus Christi. The water was transported to Corpus Christi by allowing the wells to flow into the Nueces River. When fully operational, the wells discharged 10 million gallons of water per day into the river. Evidence showed that as much as 63 percent to 74 percent of the water discharged into the river escaped through evaporation, transpiration and seepage, and therefore never reached its destination. The lawsuit was based primarily upon statutes that made it unlawful to waste artesian water.³ The trial court ruled in favor of the City of Pleasanton finding that the conduct of the defendants “was in violation of the statutes and the conversation [sic] laws of the State of Texas” and enjoining the defendants from discharging water into the river.⁴ The Court of Appeals affirmed. But in a split decision the Texas Supreme Court reversed, holding that liability could only be established by proving that the water was to be put to an *unlawful* use as distinguished from a lawful use.⁵ The Court reasoned that the Legislature knew that if transported by “river, creek, or other natural water course or drain” that some water would escape. Having implicitly approved the transportation of water by those means, the Court concluded that the Legislature could not have intended to make those same means of transportation illegal if some of it escaped. Thus, the Court focused narrowly on whether the defendants’ use of the water was lawful. After examining precedents on the rule of capture, the Court reiterated the common law view that “an owner of land could use all of the percolating water he could capture from wells on his land for whatever beneficial purposes he needed it, on or off of the land, and could likewise sell it to others for use off of the land and outside of the basin where produced, just as he could sell any other species of property.”⁶ Based on this narrow reading of the statutes and its broad application of the rule of capture, the Court held that the defendants use of the water was lawful despite the loss of up to 74 percent of the water during transport.

¹ See *Friendswood*, 576 S.W.2d at 26.

² 154 Tex. 289, 276 S.W.2d 798 (1955).

³ The statute provided “Waste is defined for the purposes of this Act, in relation to artesian wells to be the causing, suffering or permitting the waters of an artesian well to run into any river, creek or other natural water course or drain, superficial or underground channel, bayou, or into any sewer, street, road, highway, or upon the land of any other person than that of the owner of such well, or upon the public lands or to run or percolate through the strata above that in which the water is found, unless it be used for the purposes and in the manner in which it may be lawfully used on the premises of the owner of such well.” Article 7602, Revised Civil Statutes (1925).

⁴ *City of Corpus Christi*, 276 S.W.2d at 800.

⁵ *Id.* at 802.

⁶ *Id.*

The Court went on to note that the statutes in question passed just before the voters adopted the Conservation Amendment (Art. XVI, sec. 59) to the Texas Constitution, which declared the conservation of the state’s natural resources — including water — to be a public right and duty. The Conservation Amendment further authorized the Legislature to pass all appropriate laws to carry out the purpose of the Amendment. The Court observed:

No such duty was or could have been delegated to the courts. It belongs exclusively to the legislative branch of government. Undoubtedly the Legislature could prohibit the use of any means of transportation of percolating or artesian water which permitted the escape of excessive amounts, but it has not seen fit to do so.¹

Finally, the majority observed that the Legislature was currently in session and would have the Court’s opinion. If the Legislature wished to stop the conduct at issue, it had the ability to enact the appropriate legislation.²

In a noteworthy dissent, Justice Will Wilson acknowledged that what was “secret [and] occult” to the Court in 1904 was no longer the case.³ Justice Wilson also cautioned that the Supreme Court would not forever use deference to the Legislature to justify maintaining the rule of capture in the face of changing circumstances.⁴

Beckendorff v. Harris-Galveston Coastal Subsidence Dist. (1977)

In 1975, the Legislature passed a bill creating the Harris-Galveston Coastal Subsidence District in order to address the problems posed by subsidence in the region. The District was given the power to regulate groundwater pumping to control subsidence.

In *Beckendorff*,⁵ a number of rice farmers in Harris County using their wells for irrigation filed suit seeking to have the legislation creating the Harris-Galveston County Coastal Subsidence District held unconstitutional. The trial court upheld the constitutionality of the act, and the Court of Appeals affirmed.⁶

Although *Beckendorff* did not involve a direct application of the rule of capture, it was the first major opinion addressing the propriety of legislative action regulating groundwater pumping. Although an appeals court decision, the opinion would set the stage for the next modification of the rule of capture in the following year.

¹ *Id.* at 803.

² *Id.*

³ *Id.* at 805-806 (Wilson, J., dissenting).

⁴ *Id.* at 805 (Wilson, J., dissenting).

⁵ *Beckendorff v. Harris-Galveston Coastal Subsidence Dist.*, 558 S.W.2d 75 (Tex. Civ. App. – Houston [14th Dist.], writ ref’d n.r.e.).

⁶ The Texas Supreme Court refused the writ of error with the notation “no reversible error.”

Friendswood Development Co. v. Smith Southwest Industries (1978)

Beckendorff set the stage for the last major modification to the rule of capture: an exception that recognized a negligence/nuisance cause of action for subsidence caused by excessive water pumping.

Friendswood Development Company pumped large amounts of groundwater from its property to sell primarily to industrial users in another of its developments.¹ These wells were drilled from 1964 through 1971 despite defendants' knowledge that previous engineering reports concluded that such groundwater pumping would cause land subsidence in the area. Landowners near the Johnson Space Center filed a class action suit in 1973 alleging that defendants' extensive withdrawal of groundwater caused their land to sink below mean sea level resulting in erosion and flooding of their land and damage to their residences and businesses. The evidence before the trial court showed that the land in the area had subsided 2.12 feet between 1964 and 1973.²

The Court observed that jurisdictions adhering to the English rule deny tort actions for subsidence.³ But in departing from the common law rule, the Court noted that the Legislature had entered the field and that the recognition of a new tort action would encourage compliance with the legislative attempts to control subsidence through creation of subsidence control districts such as the one at issue in *Beckendorff*: "Providing policy and regulatory procedures in this field is a legislative function. It is well that the Legislature has assumed its proper role, because our courts are not equipped to regulate ground water uses and subsidence on a suit-by-suit basis."⁴

In departing from the common-law rule with respect to subsidence, the Court stated "We agree that some aspects of the English or common law rule as to underground waters are harsh and outmoded, and the rule has been severely criticized since its reaffirmation by this Court in 1955."⁵ The Court then recognized a new cause of action if a landowner's withdrawal of groundwater is negligent, willfully wasteful, or for the purpose of malicious injury, and such conduct is a proximate cause of subsidence of the land of others.⁶ The Court abandoned the English Rule as to subsidence reasoning that no other use of private real property enjoyed the same immunity from liability.⁷ The Court further held that recognizing such a cause of action would better protect the rights of all landowners against subsidence if each has the duty not to damage the lands of others.⁸

¹ *Friendswood*, 576 S.W.2d at 22.

² *Id.*

³ *Id.* at 27.

⁴ *Id.* at 29.

⁵ *Id.* at 24-25.

⁶ *Id.* at 30.

⁷ *Id.* at 29.

⁸ *Id.* at 30.

Finally, the cause of action applied only prospectively; the Court concluded that it would be unjust to apply this new tort action retroactively because the rule of capture had become an established rule of property law in Texas.¹

Denis v. Kickapoo Land Co. (1989)

Under existing precedent, surface water users could only claim damages from excessive groundwater use upstream by presenting clear evidence that the springs arose from an underground stream and contributed directly to the diminution of a river. The burden of proof, however, is so high that it is nearly insurmountable.

In *Denis v. Kickapoo Land Co.*,² an upstream landowner drilled a suction well into Kickapoo Springs, which fed Kickapoo Creek, in order to irrigate crops. The well withdrew 700 to 800 gallons of water per minute and diminished the flow of the creek.³ Downstream users sued claiming unlawful diversion of state surface waters. The trial court granted summary judgment for the defendant well owner, and the court of appeals affirmed.⁴

The Court distinguished between surface water, which belongs to the state, and percolating groundwater, which under the English rule is the absolute property of the landowner. The presumption in Texas is that water is percolating groundwater even if it feeds a spring.

The Court cited with approval the English rule regarding groundwater that feeds a spring:

Under the English rule of the common law, percolating waters tributary to springs were treated the same as all other percolating waters as a part of the soil where found and belonged absolutely to the owner thereof, who could do what he pleased with them, even though in abstracting the water it dried up the springs, to which the water was tributary, on the land of another. And it is immaterial that the springs so supplied with water were the sources of a stream or surface water course upon which riparian rights had vested, provided that the water was intercepted while it was still percolating through the soil before it had reached the surface of the ground at the springs.⁵

The Court held that the summary judgment evidence was insufficient to sustain the plaintiffs' burden of proof and overcome the common-law presumption under the rule of capture. *Kickapoo Land Company* made clear that Texas courts would adhere strictly to the rule of capture, even when a clear opportunity to apply the "subterranean stream" exception presented itself.

¹ *Id.* at 26.

² 771 S.W.2d 235 (Tex. App. – Austin 1989, writ denied).

³ *Id.* at 236.

⁴ *Id.* at 235-236.

⁵ *Id.* at 238-239 citing C. Kinney, *A Treatise on the Law of Irrigation and Water Rights*.

Barshop v. Medina County Underground Water Conservation Dist. (1996)

The Texas Supreme Court upheld the facial constitutionality of the Edwards Aquifer Act, which created the Edwards Aquifer Authority and greatly expanded the powers of underground water districts. The Court also affirmed the rule of capture.

The Court's discussion of the rule of capture provided the historical common-law framework within which the Legislature acted and within which the plaintiffs made their claims against the Act. The Court upheld the Act against a multitude of constitutional challenges. In rejecting the plaintiffs' contentions that the Act had no rational basis and was overbroad, the Court reiterated the Legislature's constitutional charge to regulate groundwater under the Conservation Act:

Water regulation is essentially a legislative function. The [Conservation Amendment] recognizes that preserving and conserving natural resources are public rights and duties. The Edwards Aquifer Act furthers the goals of the [Conservation Amendment] by regulating the Edwards Aquifer, a vital natural resource which is the primary source of water in south central Texas. The specific provisions of the Act, such as the grandfathering of existing users, the caps on water withdrawals, and the regional powers of the Authority, are all rationally related to legitimate state purposes in managing and regulating this vital resource.¹

Sipriano v. Great Spring Waters of America, Inc. (1999)

This case squarely presented the issue of whether Texas should continue to follow the rule of capture. The Texas Supreme Court refused to abolish the rule of capture and instead showed its historical deference to the Legislature. In *Sipriano*, Henderson County landowners sued the Ozarka Spring Water Co. when their wells were severely depleted by Ozarka's pumping of 90,000 gallons of water per day from nearby land.² Relying on the rule of capture, the district court granted summary judgment against the landowners, and the court of appeals affirmed.³ The landowners then asked the Texas Supreme Court to overturn the rule of capture in favor of the rule of reasonable use. The Supreme Court refused the invitation.

By constitutional amendment, Texas voters made groundwater regulation a duty of the Legislature. And by Senate Bill 1, the Legislature has chosen a process that permits the people most affected by groundwater regulation in particular areas to participate in democratic solutions to their groundwater issues. It would be improper for courts to intercede at this time by changing the common-law framework within which the Legislature has

¹ *Barshop* at 633.

² *Sipriano*, 1 S.W.3d at 76.

³ *Id.*

attempted to craft regulations to meet the state’s groundwater-conservation needs. Given the Legislature’s recent actions to improve Texas’s groundwater management, we are reluctant to make so drastic a change as abandoning our rule of capture and moving into the arena of water-use regulation by judicial fiat. It is more prudent to wait and see if Senate Bill 1 will have its desired effect, and to save for another day the determination of whether further revising the common law is an appropriate prerequisite to preserve Texas’s natural resources and protect property owners’ interests.

We do not shy away from change when it is appropriate. We continue to believe that ‘the genius of the common law rests in its ability to change to recognize when a timeworn rule no longer serves the needs of society, and to modify the rule accordingly.’ And Sipriano presents compelling reasons for groundwater use to be regulated. But unlike in *East*, any modification of the common law would have to be guided and constrained by constitutional and statutory considerations. Given the Legislature’s recent efforts to regulate groundwater, we are not persuaded that it is appropriate today for this Court to insert itself into the regulatory mix by substituting the rule of reasonable use for the current rule of capture.¹

The concurring opinion by Justice Nathan Hecht is particularly noteworthy. After observing that the people of Texas had given the Legislature the power and authority to regulate groundwater in 1917, Justice Hecht remarked, “Not much groundwater management is going on.”² Justice Hecht noted that neither of the reasons given in *East* for the adoption of the rule of capture remained valid today.³ Quoting Oliver Wendell Holmes, Jr., he further rejected the notion that we should adhere to the rule because it has been the law for a long time: “It is revolting to have no better reason for a rule of law than that so it was laid down in the time of Henry IV. It is still more revolting if the grounds upon which it was laid down have vanished long since, and the rule simply persists from blind imitation of the past.”⁴

Although directly challenging the underpinnings of the rule of capture, Justice Hecht reluctantly agreed to defer to the Legislature for now:

Nevertheless, I am persuaded for the time being that the extensive statutory changes in 1997, together with the increasing demands on the State’s water supply, may result before long in a fair, effective, and comprehensive regulation of water use that will make the rule of capture obsolete. I agree with the Court that it would be inappropriate to disrupt the processes created and encouraged by the 1997 legislation before they have had a chance to work. I

¹ *Id.* at 80.

² *Id.* at 81 (Hecht, J., concurring).

³ *Id.* at 82.

⁴ *Id.*

concur in the view that, for now — but I think only for now —
East should not be overruled.¹

Bragg v. Edwards Aquifer Authority (2002)

The latest chapter in the rule of capture in Texas is *Bragg v. Edwards Aquifer Authority*.² In *Barshop*, the Texas Supreme Court upheld the Edwards Aquifer Act in a facial challenge to its constitutionality. Six years later, the Court was faced with allegations that the Edwards Aquifer Authority in applying the Act had violated provisions of the Private Real Property Rights Preservation Act.³ Thus, *Bragg* involved a challenge to the Act as applied.

At issue was the applicability of the Property Rights Act to the well-permitting process of the Edwards Aquifer Authority. Plaintiffs sued the Edwards Aquifer Authority claiming that the Authority violated the Property Rights Act by failing to prepare “takings impact assessments” (TIAs) before issuing is aquifer-wide well-permitting rules and applying those rules to the plaintiffs’ applications for two well permits.⁴

The Supreme Court held that the Authority’s adoption of well-permitting rules falls within the exception to the Property Rights Act for actions taken under a political subdivision’s statutory authority to prevent waste or protect rights of owners of interest in groundwater.⁵ The Court also concluded that the Authority’s proposed actions on the plaintiffs’ permit applications constitute “enforcement of a governmental action,” to which the TIA requirement does not apply.⁶

Conclusion

Since its adoption in Texas 100 years ago, the rule of capture has been modified to prevent (1) willful waste, (2) malicious harm to a neighbor, and (3) subsidence. Further, the Texas Supreme Court has consistently acknowledged that this common-law rule can be modified by the Legislature. Any lingering doubt was resolved in 1917 by the adoption of the Conservation Amendment, which vests the Legislature with the power to regulate the state’s natural resources, including groundwater.

In its decisions over the past half-century, the Texas Supreme Court has overwhelmingly reiterated the Legislature’s power to regulate groundwater. If such regulation were to be adopted on a statewide basis, it could make the rule of capture obsolete. But so far, the Legislature has not accepted the Court’s invitation to regulate groundwater more comprehensively. The Court has thus far shown substantial deference to the Legislature but the cautions of Justices Will Wilson and Nathan Hecht should be heeded: it is unlikely that the Supreme Court will forever use deference to the Legislature to justify maintaining the rule of capture in the face of changing circumstances.

¹ *Id.* at 83.

² 71 S.W.3d 729 (Tex. 2002).

³ See TEX. GOV’T CODE 2007.001-.045.

⁴ *Bragg*, 71 S.W.3d at 730.

⁵ *Id.*

⁶ *Id.* at 731.

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Chapter 2

What Should Texas Do About the Rule of Capture?

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Introduction

There is increasing dissatisfaction in Texas with the groundwater rule of capture. Nearly all other states abandoned it long ago.

What are the merits and demerits of the rule of capture? All that can be said in favor of the rule of capture is that it leaves the market free to allocate water to uses regarded by the market as most valuable. In the short run, the rule of capture may accomplish this objective, but eventually its lack of restraint leads to diminishing, and eventual depletion, of the available supply of aquifers. In other words, some enterprises using groundwater shift some of their costs to others.

The rule of capture not only threatens the supply of water in Texas, but also deprives Texas landowners of rights they might otherwise have. They have no legal remedy for dewatering of their wells by others.

However, one criticism of the rule of capture is groundless. Some have asserted that the rule of capture is a serious obstacle to effective groundwater management. It is true, of course, that Texas courts are not managing groundwater, but the Texas Legislature is. Also, the Supreme Court of Texas has been supportive of groundwater management by the Texas Legislature.

A court can do nothing until a case comes to it. And in those cases, courts are generally constrained by the pleadings and precedent. A perfect legislative groundwater program would prevent cases that call for application of judicial groundwater doctrines from reaching the courts. But perfection is elusive. When a Texas groundwater case involving an issue not addressed by legislature comes to the Supreme Court of Texas, it seems that the court should undertake to fill the gap, unless there are sound reasons not to do so in the case presented.

Alternatives to the Rule of Capture

If the Supreme Court of Texas decides to reconsider its position on the rule of capture, what should replace it? Presumably, the court would consider: (1) the reasonable use doctrine, (2) the correlative rights doctrine, and (3) the Restatement (Second) of Torts §858. The court would not

consider the prior appropriation, since in Texas that doctrine is a creature of the Legislature. The Legislature, not the court, would decide whether to extend prior appropriation to groundwater.

Reasonable Use

The reasonable use doctrine provides judicial remedies for landowners whose reasonable use of groundwater is harmed by unreasonable use by others. Any use on any land other than the tract where the well is situated is categorically classified as unreasonable, no matter how beneficial it may be. Why? A conceptual explanation is that the on-tract limitation follows from the fact that land ownership is the source of the water right. The on-tract limitation is also an aspect of the law of riparian rights. A policy reason for the on-tract limitation is that it tends to prevent excessive use of water. The Texas Court of Civil Appeals in the *East* case¹ applied the reasonable use doctrine. The court ruled that since the railroad's use of water was not on the well-site tract, it was unreasonable. The court did not consider the importance of railroad use of water or the availability of other well-sites for the railroad. Nor did it consider the availability of other water supplies for Mr. East. Although the railroad would have lost the case if the judgment of the Court of Civil Appeals had been affirmed, the railroad would have suffered very little. It would not have been required to discontinue or modify pumping of its well. The railroad was required only to pay Mr. East less than \$300.00.

Suppose that Mr. East's well had been dewatered by a nearby well used to supply huge amounts of water for a catfish farm on the well-site tract. Would the courts, applying the reasonable use doctrine, have held the catfish farm owner liable for unreasonably harming Mr. East? Not according to the Supreme Court of Alabama.² That court considered only whether catfish farming, viewed independently, is a reasonable use of water. The court did not consider the impact of that use on nearby small irrigators. The Alabama court expressly rejected the balancing approach applied in nuisance cases. Regrettably, this decision is typical.

The Supreme Court of Texas should not adopt this reasonable use doctrine.

Correlative Rights

One year before the Texas Supreme Court decided *East*, the Supreme Court of California announced that each landowner is entitled to a "fair and just" proportion of the supply of groundwater.³ This right extends only to the quantity of water that is necessary for use on one's land. The surplus is available for appropriation by others. Those appropriators may use water for off-tract uses, but their rights are subordinate to correlative rights for on-tract uses. Thus, both the reasonable use doctrine and the correlative rights doctrine have an on-tract limitation. This is an undesirable obstacle to free market transfers of groundwater.

Another negative feature of the California correlative rights doctrine is the difficulty of ascertaining "fair and just" shares. Litigation is necessary, and those determinations may be

¹ 77 S.W. 646 (Tex. Civ. App. 1903)

² *Adams v. Lang*, 553 So.2d 89 (Ala. 1989).

³ *Katz v. Walkinshaw*, 74 P. 766 (Cal. 1903).

modified in subsequent litigation involving claims not litigated in earlier lawsuits. Also, landowners may decide to exercise their rights at anytime, forcing the scaling down of existing adjudicated shares. The destabilizing impact of unexercised correlative rights is the same problem Texas had with unexercised riparian rights prior to implementation of the Water Adjudication Act of 1967.

There is also the problem of choice of criteria for defining “fair and just” shares. A relatively easy criterion is the number of acres owned by each litigant overlying an aquifer. But this fails to take into consideration other relevant factors. One such factor is the suitability of the land for various uses of water. In areas where irrigation is a major use of water, irrigable acreage of a tract may be a better criterion than total acreage. What would be the fair share of an industrial plant on a small tract in an irrigated area? Another factor, in addition to variations in land use, is variations in the nature of the aquifer. California courts consider such factors. A recent decision by the Supreme Court of California demonstrates, however, that flexibility has its limits.⁴ This was a complex lawsuit requiring adjudication of the groundwater rights of over 1,000 parties. Most of the parties agreed to a settlement. The trial court applied the settlement to all parties, including those who had not agreed to it, on the ground that it was equitable to do so. The Supreme Court reversed, holding that parties who had not agreed to the settlement could not be bound by it, even if it was equitable. This result makes adjudication of complex multi-party correlative rights suits very difficult to resolve. These suits are sometimes lengthy and costly.

Restatement (Second) of Torts §858

A third judicial doctrine for groundwater is that found in the American Law Institutes Restatement (Second) of Torts at §858. The Institute is a prestigious body of lawyers, judges, and law professors who undertake to state concisely the best aspects of fields of American state laws. The Restatements are not model laws.

For groundwater, the Restatement adopts some aspects of both the reasonable use and correlative rights doctrines, but discards others. The traditional preference for on-tract uses is discarded. Reasonableness of uses of litigants is determined by comparing the reasonableness of their uses. Many factors are deemed relevant, including economic and social values.

Liability is imposed for withdrawal of groundwater that exceeds one’s “reasonable share” of the annual supply or total store of groundwater. “Reasonable shares” are to be determined on a case-to-case basis. “Rigid acreage formula” are not endorsed.

Still another significant departure from traditional doctrine is the Restatement’s imposition of liability for pumping groundwater that has a harmful “direct and substantial” impact that unreasonably harms holders of rights in streams or lakes. Most courts⁵ have refused to do this unless the defendant’s pumping is from an underground stream or from the subflow of a surface watercourse. It is almost impossible to prove the existence of an underground stream. Subflow has usually been defined by courts as water in soil under or “immediately adjacent” to a stream. A well located a few feet from a stream is probably drawing water from the subflow, which is

⁴ *City of Barstow v. Mojave Water Agency*, 5 P.3d 853 (Cal. 2000).

⁵ But not all. *Collens v. New Canaan Water Company*, 234 A.2d 825 (Conn. 1967).

deemed by courts to be part of the stream and subject to laws applicable to streams. The Supreme Court of Arizona, however, focusing on physical reality, broadened that definition so as to include much of a flood plain.⁶

According to the Restatement, the fact that separate water rights systems are applied by a state to surface water and groundwater is not a sufficient reason to bar liability for tortious harm to holders of water rights in streams. If the stream rights are only riparian rights, the similarity of riparian rights and the Restatement's reasonable use groundwater rights doctrine makes it feasible to resolve conflicts between surface and groundwater rights. It seems more difficult to resolve such conflicts if the surface water rights are prior appropriation. Despite this, the Restatement does not exclude non-riparian water rights from its coordination provision.

Although this provision of the Restatement imposes liability only to owners of water rights, environmental and other interests are incidental beneficiaries.

How Useful Are Judicial Groundwater Doctrines?

All of these doctrines are property and tort law doctrines. They are not groundwater management laws, although they affect the way groundwater resources are utilized.

Let us consider briefly the relevance of judicial doctrine to significant groundwater problems.

Well Interference

The Restatement deals adequately with well interference conflicts, but does nothing to prevent their occurrence. The Texas Legislature could do this by requiring that districts permit no new or enlarged wells absent proof that they are not likely to interfere with other wells. For wells outside districts, as in *Sipriano*,⁷ similar permits from a state agency could be required.

Quantification

Quantification of groundwater rights is helpful, if not essential, to effective marketing of groundwater. That is attempted by the California correlative rights doctrine, but it has been difficult to apply. Quantification has been achieved in the Edwards Aquifer by issuing permits for specific amounts of water, based on historic use, and by capping total aquifer pumping. This could be done for other aquifers.

Another alternative solution to the quantification problem would be legislative conversion of landowners' groundwater rights to appropriative rights, as the legislature has already done for landowners' riparian rights.

⁶ In re Gila River System, 9 P.3d 1069 (Ariz. 2000).

⁷ *Sipriano v. Spring Waters of America, Inc.*, 1 S.W.3d 75 (Tex. 1999).

Overuse

None of the judicial doctrines addresses adequately the critical problem of overuse of aquifers. The Texas Legislature can extend the useful life of aquifers by limiting total pumping.

Unprotected Interests

All of the judicial doctrines expressly protect only persons with water rights, principally landowners. Economic and social interests are only “considered” by the Restatement in determining the reasonableness of uses by holders of water rights. Environmental, recreational, community, and other interests must look to the Legislature for protection. Interests of communities in impacts of transportation of groundwater from one region to another can be fairly balanced only at the state level by impartial officials. Interbasin transfers of surface water pose the same problem.

Groundwater—Surface Water Conflicts

The Restatement provision imposing liability for pumping that has a harmful “direct and substantial” impact on holders of water rights in streams and lakes is helpful, but does not go far enough. It does not prevent harmful non-tortious pumping. When there are a multitude of pumpers, it is extremely difficult, if not impossible, to identify anyone whose pumping has a “direct and substantial” effect on a surface watercourse. The Texas Legislature could handle this by requiring districts to withhold permits to pump if additional pumping would harm surface water rights and interests.

Conclusion

Substituting another judicial doctrine for the rule of capture would help Texas address some groundwater problems, but would help hardly at all in meeting the most serious groundwater problems confronting Texas.

What should the Supreme Court of Texas do about the rule of capture? It should not replace the rule of capture with either the traditional reasonable use doctrine or the California correlative rights doctrine. It should apply the Restatement (Second) of Torts §858. This would not interfere with legislative groundwater management. Conflicts would be resolved in favor of the statutes. The role of the Supreme Court of Texas would thus be limited to filling gaps in the statutes.

An issue related to the rule of capture, but not restricted to it, concerns the question whether any or all of these judicial doctrines establishes in the landowner ownership of the groundwater in place or merely the right to withdraw it. The first alternative probably accords with the understanding of landowners, but the second alternative accords with the physical nature of groundwater. Unlike oil, groundwater typically is in motion. Water that is beneath one’s land today may not be there next month or next year. What practical difference does it make? Possibly none. The issue should not affect the outcome of a suit for redress for dewatering a well. Nor should it affect the scope of governmental power to regulate groundwater, though it

might conceivably affect cases seeking compensation for regulations that constitute takings. The latter possibility is due to the position of the United States Supreme Court that a regulation of property is not likely to be a taking unless the plaintiff has been deprived of its entire property interest. Definition of the present interest is thus important for this purpose in theory. As a practical matter, however, both types of interests in groundwater would seem to have the same value. Terminology of conveyances of interests in groundwater would be affected by the choice of theory, but conveyancers could adapt to either theory. In short, the choice of the competing theories may not be very important. I recognize, however, that court decisions and lawyers are not in agreement on this issue.

What should the Texas Legislature do about the rule of capture? It could enact a statute declaring that the rule of capture for groundwater is replaced by one of the judicial alternatives, preferably the Restatement (Second) of Torts §858. The courts would apply it.

In lieu of enacting such a statute, the Texas Legislature might prefer to incorporate in a regulatory statute certain policies of judicial doctrines, as the Oklahoma Legislature has done.⁸ Oklahoma's groundwater statute incorporates aspects of both reasonable use and correlative rights doctrines. It directs the state water agency to determine the maximum annual yield for groundwater "basins and subbasins" and to allocate that amount to overlying landowners on a per acre basis. These determinations are adjudicated. Landowners must obtain permits from the state agency before pumping. Permits are granted only if the state agency determines, among other things, that the proposed use is "beneficial." Historic use is protected, apparently even if to do so would exceed the per acre allocation.

This Oklahoma statute avoids some weaknesses of the California correlative rights doctrine, particularly the latter's on-tract restrictions and lack of aquifer caps, but it is less desirable in that its determination of shares is simplistic. The Oklahoma statute also enables landowners to hoard groundwater, which is contrary to the policy of Texas statutes limiting riparian rights to historic uses and requiring forfeiture of unused appropriative right. That policy is that non-use of water is waste.

Texas groundwater districts should not be authorized to choose a groundwater rights system. The reason is the likelihood that board members will have conflicts of interest.

The Texas Legislature could ignore the rule of capture, and continue on its present course of addressing directly groundwater problems. This might be the best alternative. The legislature has a variety of regulatory tools to address groundwater problems. Probably the most significant is the requirement that all pumping of significant volumes of water be allowed only by permits, granted only upon a showing that certain policies will be observed, and conditioned upon adherence to those policies. The Legislature has already done this for appropriation of water in surface water courses. It also has required such permits for some districts, notably the Edwards Aquifer Authority and the Harris-Galveston Coastal Subsidence District. In addition, the Legislature has capped total withdrawals from the Edwards Aquifer.

Legislative extension of the prior appropriation system to groundwater would be helpful to some extent. Groundwater rights would be quantified and integrated with surface water rights. Historic

⁸ Okla. Stat. Ann. Title 82, §1020.

use would be preserved. Excess water would be allocated to permittees who meet the requirements. An applicant would be required to establish, among other things, that appropriated water is available, that the proposed use is beneficial, that existing water rights will not be impaired, that the public welfare will not be harmed, that impacts upon water quality and environmental interests are considered, that the state water plan and regional plans will be observed, and that reasonable diligence will be used to avoid waste and achieve water conservation.

There are reasons for not extending prior appropriation to groundwater. The first-in-time, first-in-right preference would give the best priorities to shallow low capacity wells. This could result in under use of aquifers. Some western states have modified prior appropriation by requiring that wells be able to reach reasonable depths. There is also the general criticism that temporal priority is not as fair as other priority systems, such as proportional sharing of declining water supplies, or awarding priorities on the basis of the relative importance of uses. Finally, in Texas, extending prior appropriation to groundwater would require considerable restructuring of groundwater district law.

Acknowledgment

I acknowledge the assistance of Suzanne Hassler, Administrative Assistant, School of Law, University of Texas at Austin, in preparing this paper for publication and for related services.

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Chapter 3

Regulatory Dance: Rule of Capture and Chapter 36 District Perspective

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[I]n the fifty years since the Legislature first authorized the creation of groundwater conservation districts . . . [n]ot much groundwater management is going on.

Sipriano v. Great Spring Waters of America, Inc., 1 S.W.3d 75, 81 (Tex. 1999). (Hecht, J. concurring).

Introduction

Groundwater supplied close to half of the water used in the State in 1999.² While groundwater supplies are expected to decrease by 19 percent in the year 2050, the population of Texas is expected to almost double during the same period.³ By 2050, thirteen of the thirty, major and minor, aquifers will show a decline in water in storage.⁴ Groundwater is, and must continue to be, a major source of water for Texas.⁵ Despite the existence of 80 confirmed groundwater districts and 8 groundwater districts awaiting final voter approval,⁶ a significant portion of the State of Texas is still not contained within the boundaries of a groundwater district.

The Texas Supreme Court in 1904 in *Houston & T.C. Ry. Co. v. East*, 81 S.W. 279, 281 (Tex. 1904), adopted the rule of capture as the standard to regulate or, rather, not regulate, Texas groundwater usage. Even after 100 years, this doctrine amazingly is still viable in the parts of

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² Texas Water Development Board, *Water for Texas—2002*, at 38 (January 2002).

³ *Id.* at 25, 38.

⁴ *Id.* at 43.

⁵ *Id.* at 4.

⁶ As of September 1, 2003, the Texas Water Development Board lists on website, <http://www.twdb.state.tx.us/mapping/index.asp>.

Texas outside a groundwater district despite Texas courts' expressions of concern¹ and ridicule from commentators throughout the United States.² Significantly, the Texas Supreme Court in *East* recognized the ability of the Legislature to regulate groundwater and, indeed, over the years the Supreme Court and the Texas Courts of Appeal have invited Legislative intervention.³

In the hundred years since the *East* case, the Texas Legislature has passed several pieces of legislation relating to groundwater regulation. In 1913, the Legislature passed a statute defining and prohibiting waste from artesian wells.⁴ The Legislature in 1931 passed a law authorizing the Board of Water Engineers to promulgate rules to conserve groundwater.⁵ Nevertheless, significant efforts to regulate groundwater production did not occur until 1949, when, in response to concerns over the excessive withdrawal of water from the Ogallala aquifer, the Legislature authorized the creation of underground water conservation districts in the Texas Groundwater District Act of 1949.⁶ Reading the 1949 legislation, it is somewhat surprising, considering the historical lack of aggressive groundwater management by groundwater districts, to find that much of the fundamental authority groundwater districts have today was granted in the original 1949 legislation.⁷ The Act, however, was not a comprehensive approach to groundwater management but rather optional regulation through locally controlled districts. Since the passage of the Act and, after much legislative fine-tuning over the years, criticism continues over the failure of groundwater districts to adequately regulate groundwater production within its jurisdiction. Of course, the areas outside of a groundwater district remain virtually unregulated.

Others in the seminar proceedings are discussing the history and evolution of the rule of capture, alternative methods of regulation of groundwater, and technical issues involved in groundwater regulation. This paper discusses the authority vested in the State and districts to regulate groundwater, and examines court opinions related to groundwater district regulation. The final section makes recommendations for addressing groundwater regulation issues, particularly within groundwater districts.

¹ See *Sipriano v. Great Spring Waters of America, Inc.*, 1 S.W.3d 75, 78 (Tex. 1999).

² See, e.g., A. Dan Tarlock, *Prior Appropriation: Rule, Principle or Rhetoric?*, 76 N.D.L. REV. 881 (2000) (groundwater resources were initially allocated by a rule of capture out of scientific ignorance); Corwin W. Johnson, *The Continuing Voids in Texas Groundwater Law: Are Concepts and Terminology to Blame?* 17 ST. MARY'S L.J. 1281 (1986) (commenting on need for judicial protection from drainage by other landowners).

³ *Sipriano* at 78; *Pecos County Water Control and Imp. Dist. No. 1 v. Williams*, 271 S.W.2d 503, 507 (Tex. Civ. App.—El Paso 1954, writ ref'd n.r.e.).

⁴ Act of April 9, 1913, 33d Leg., R.S., ch. 171, §§ 91-95, 1913 Tex. Gen. Laws 358, 378-79 (now codified at TEX. WATER CODE ANN. §§ 11.201-.205 (Vernon 2000)).

⁵ Act of May 28, 1931, 42d Leg., R.S., ch. 261, 1931 Tex. Gen. Laws 5 (now codified at TEX. WATER CODE ANN. ch. 28, §§ 28.001 and 28.011 (Vernon 2000)). Note that although these provisions today relate to protecting groundwater quality, until the Legislature amended §28.011 in 1993, the legislation authorized rulemaking to conserve groundwater. Act of Aug. 30, 1993, 73d Leg., R.S., ch. 914, 1993 Tex. Gen. Laws 3875.

⁶ Act of June 2, 1949, 51st Leg., R.S. ch. 306, § 3(c), 1949 Tex. Gen. Laws 559 (now codified at TEX. WATER CODE ANN. ch. 36 (Vernon 2000 & Supp. 2004)).

⁷ *Id.*

Groundwater and Groundwater District Legislation

In 1985, with the passage of House Bill 2,¹ the Legislature moved Texas closer to more comprehensive local management and regulation of groundwater pumpage than had previously been authorized by the 1949 Act. In general, before 1985, when an area's groundwater problems reached critical mass, the Legislature enacted whatever was politically expedient without regard to legal or management realities. House Bill 2 set up a structure to designate critical groundwater areas and provide economic incentive to create underground water districts.

The 71st Texas Legislature further strengthened the legislation contained in House Bill 2 by adopting changes to what was then chapter 52 of the Water Code which broadened the Texas Water Commission's (now Texas Commission on Environmental Quality) power to designate underground water districts in critical areas.² This legislation provided a method for the Commission to identify critical areas and, if necessary, to determine that an underground water district should be created within the critical areas. While there was still local option to create an underground water district recommended by the Commission, failure to create the district prohibited any use of Texas Water Development Board funds inside the perimeter of the proposed district.³

Significant amendments to groundwater district authority occurred in 1997 with Senate Bill 1⁴ that was followed up with additional legislation in 2001.

Senate Bill 1, among other things, bolstered the critical areas provisions, terming these Priority Groundwater Management Areas ("PGMA").⁵ The Texas Commission on Environmental Quality, along with the Texas Water Development Board, reviews various aquifers and management areas across the State to determine if certain areas are in need of immediate management. If so, these areas are designated as PGMAs. To date, five PGMAs have been designated.⁶ The 1997 legislation also amended provisions relating to state creation of groundwater districts within all or part of a PGMA, apparently in contemplation of more state action creating such districts, although none have yet been created pursuant to this provision.⁷

¹ Act of December 3, 1985, 69th Leg., R.S., ch. 133, § 5.01, 1985 Tex. Gen. Laws 639-652 (now codified in TEX. WATER CODE ch. 35 and ch. 36 (Vernon 2000 and Supp. 2004).

² Act of June 14, 1989, 71st Leg, R.S., ch. 936, § 4, 1989 Tex. Gen. Laws 3981, 3987-94. The Legislature in 1995 repealed Chapter 52 of the Water Code and enacted Chapters 35 and 36 in its place. Act of Sept. 1, 1995, 74th Leg., R.S., ch. 933, § 6, 1995 Tex. Gen. Laws 4701.

³ TEX. WATER CODE ANN. § 52.063 (Vernon 1990). Note that this provision was later amended to state that a political subdivision within one of these areas, where voters approved a district, must be considered for financial assistance from the State. Act of Sept. 1, 1997, 75th Leg., R.S., ch. 1010, § 4.17, 1997 Tex. Gen. Laws 3640, 3641.

⁴ See, e.g., Martin Hubert, *Senate Bill 1: The first big and bold step toward meeting Texas' future water needs*, 61 Tex. B.J. 894 (1998).

⁵ TEX. WATER CODE ANN. §§ 35.001-.013.

⁶ As of September 1, 2003, the Texas Water Development Board lists on website, <http://www.twddb.state.tx.us/mapping/index.asp>.

⁷ See, e.g., TEX. WATER CODE ANN. § 35.008.

The bill also provided for financial assistance to newly confirmed districts not requiring a confirmation election.¹

Senate Bill 1 ushered in a new era of regional planning, and in regard to groundwater districts, required much more comprehensive management plans which address specific management goals and identify specific performance standards and management objectives to achieve these goals.² The district management plans must be consistent with the regional water plans mandated by Senate Bill 1.³

In 2001, in Senate Bill 2, the Legislature, although not adding the kind of broad conceptual changes found in Senate Bill 1, made numerous specific changes throughout Water Code Chapters 35 and 36, many of which strengthen or clarify districts' authority. Senate Bill 2 added to districts' permitting authority the power to impose more restrictive permit conditions on new permit applications and increase use, as long as certain conditions are met.⁴ This legislation also significantly strengthened districts' authority to regulate spacing and production by specifically enumerating several means by which spacing and production may be restricted.⁵ The Legislature also removed the domestic and livestock exemption for wells on tracts of 10 acres or less.⁶ In addition, Senate Bill 2 authorized districts to impose a reasonable fee on groundwater transported out of the district.⁷

Extent of Groundwater District Authority

A groundwater district's authority to regulate is based upon the Texas Constitution, statutes, and police powers. Further, the Texas Constitution, unlike most state constitutions, has a special provision, Article XVI, Section 59, termed the "Conservation Amendment," that provides the Legislature even greater power to regulate specific natural resource areas than the general power to regulate already provided in the Texas Constitution. Among other powers, Section 59 authorizes and, in fact, imposes a duty on the Texas Legislature to regulate both groundwater and oil and gas production.⁸

Authority to regulate, pursuant to these authorities, has long been recognized by the Texas Supreme Court in the regulation of oil and gas production by the Texas Railroad Commission and more recently in the regulation of groundwater.⁹

¹ TEX. WATER CODE ANN. § 36.372.

² TEX. WATER CODE ANN. §§ 36.1071-1073.

³ TEX. WATER CODE ANN. §§ 36.1071.

⁴ TEX. WATER CODE ANN. § 36.113(e).

⁵ TEX. WATER CODE ANN. § 36.116.

⁶ TEX. WATER CODE ANN. § 36.117.

⁷ TEX. WATER CODE ANN. § 36.122(e).

⁸ *Sipriano* at 78. See also *Brown v. Humble Oil and Refining Co.*, 83 S.W.2d 935 (Tex. 1935).

⁹ See, e.g., *Id.*

District Authority Pursuant to Police Powers

All property, including private property, is held, subject to the valid exercise of police powers.¹ These are the powers of the State to protect the health, safety, and welfare of the public.² Regulations made to enforce police powers, although possibly depriving owners of private property the benefit or use of their property to one extent or another, do not affect an unconstitutional taking of property.³ To hold otherwise would, as Justice Holmes declared, relegate the government to regulating by purchase and, thus, render the government ineffective in its necessary role of protecting the public welfare.⁴

How far the government can go, pursuant to police powers, in regulating the use of private property without causing a taking, depends upon the facts of a given situation. The Texas Supreme Court's opinion in *Barshop v. Medina County Underground Water Conservation District*, 925 S.W.2d 618 (Tex. 1996), is instructive on the use of the police power to regulate groundwater. In *Barshop*, the Texas Supreme Court held the Edwards Aquifer Act, although having some retroactive effect and possibly having an incidental effect on contracts was not unconstitutional for these reasons because the Act constituted a valid exercise of police power. The court found the Act provided that it was "required for the effective control of the [aquifer] to protect terrestrial and aquatic life, domestic and municipal water supplies, the operation of existing industries, and the economic development of the state" and that the aquifer was "vital to the general economy and welfare of this state."⁵ Based on these legislative findings, the court concluded that the Act is not invalid under the contract clause despite incidental effects on contracts or having some retroactive effect, "because it is a valid exercise of the police power necessary to safeguard the public safety and welfare."⁶ General standards have been established by the U.S. and Texas Supreme Courts regarding the degree of regulation that can occur under the police power before a taking of private property occurs.⁷

¹ *Brown v. Humble Oil & Refining Co.*, *supra* at 941-2 (stating general rule that, "all property is held subject to the valid exercise of the police power; nor are regulations unconstitutional merely because they operate as a restraint upon private rights of person or property or will result in loss to individuals. The infliction of such loss is not a deprivation of property without due process of law; the exertion of the police power upon subjects lying within its scope, in a proper and lawful manner, is due process of law.")

² The Texas Supreme Court in *Brown* explained that, "the police power may be exerted to regulate the use, and where appropriate or necessary prohibit the use, of property for certain purposes in aid of the public health, morals, safety, and general welfare, and that the constitutional limitations form no impediment to its exertion where the enactment is reasonable and bears a fair relationship to the object sought to be attained." *Id.* at 942.

³ *Brown v. Humble Oil & Refining Co.*, *supra* at 942; *See also Ohio Oil Co. v. State of Indiana*, 177 U.S. 190, 20 S.Ct. 576, 44 L.Ed. 729 (1900) (holding state statute restricting waste of natural gas not an unconstitutional taking of property).

⁴ Justice Holmes, in an often quoted passage, declared that, "[g]overnment hardly could go on if to some extent values incident to property could not be diminished without paying for every such change in the general law." *Pennsylvania Coal Co. v. Mahon*, 260 U.S. 393, 413, 43 S.Ct. 158, 159, 67 L.Ed. 322 (1922).

⁵ *Barshop* at 634.

⁶ *Id.* at 634-5.

⁷ *See, e.g., Penn Cent. Transp. Co. v. City of New York*, 438 U.S. 104, 98 S. Ct. 2646, 57 L. Ed. 2d 631 (1978); *Lucas v. South Carolina Coastal Council*, 505 U.S. 1003, 112 S.Ct. 2886, 120 L.Ed.2d 798 (1992)) *Palm Beach*

Other Constitutional Authority (Conservation, Due Process, Equal Protection)

Besides taking claims discussed above, districts' efforts to manage groundwater face other constitutional challenges. The Texas Supreme Court in *Barshop* addressed a number of constitutional challenges to the Edwards Aquifer Act, in addition to the taking issues. The Court's upholding of this Act will be an important precedent to fend off the likely constitutional challenges to a groundwater district's authority under Chapter 36 to limit production. The Act is far more stringent than Chapter 36 in that, with the exception of domestic and livestock use, it cuts off a new use of groundwater if there has been no historical use on a tract.

In brief, the Edwards Aquifer Act, adopted by the Legislature in 1993 (and amended in various years since) created the Edwards Aquifer Authority and authorized management of the Edwards Aquifer. The original Act, as analyzed by the court in *Barshop* and which remains substantially similar today, set an aquifer wide cap with preference given to existing users. If there was any water remaining to be allocated, it could be permitted to new users. If there was no unallocated water, landowners could only withdraw up to 25,000 gallons per day without a permit under a domestic and livestock exception. Just about every conceivable constitutional challenge to the Edwards Aquifer Act were raised in the *Barshop* case. These include three takings arguments, an equal protection argument, procedural, and substantive due process arguments, ex post facto law, retroactive law, and impairment of contract arguments, two separation of powers, open courts, and trial by jury arguments, and one additional argument that encompassed these final three again. The court rejected each argument in turn and found the Act to be constitutional on its face.

Besides the taking question, the most pertinent constitutional challenge was an alleged violation of equal protection based on the preferential treatment for existing users. Under traditional equal protection legal analysis, landowners are not a suspect class; however, the plaintiffs, consisting of landowners and others, argued that the Act infringed a fundamental right and, therefore, should be subject to strict scrutiny requiring the court to determine if the Act was narrowly tailored to achieve a compelling governmental interest. The court held that property regulation is usually analyzed by the *rational basis* test, a less demanding standard of review, and the Edwards Aquifer Act would be judged on that basis. The court found that the Act had a legitimate purpose in protecting the aquifer and historical uses and that the provisions of the act were rationally related to that purpose.¹

Isles Assoc. v. United States, 231 F.3d 1354 (Fed. Cir. 2000); *Mayhew v. Town of Sunnyvale*, 964 S.W.2d 922 (Tex. 1998) (holding landowner did not have a reasonable investment backed expectation to develop densely on small lots in a historically rural area.

¹ *Id.* at 631-32. *Accord Beckendorff v. Harris-Galveston Coastal Subsidence District*, 558 S.W.2d 75 (Tex. Civ. App.–Houston [14th Dist.] 1977) (holding legislative classifications are presumed to be constitutional unless they involve fundamental personal rights or “suspect categories” and are to be sustained upon a simple showing of rational relation to a legitimate State interest), *aff'd*, 563 S.W.2d 239 (Tex. 1978), *Creedmoor Maha Water Supply Corp. v. Barton Springs – Edwards Aquifer Conservation Dist.*, 784 S.W.2d 79 (Tex. App.–Austin 1989, writ denied) (“[A] trial court [is] bound to assume the constitutionality of the statute and the official scheme adopted thereunder by the District, and to sustain that scheme if there could exist a state of facts that justified the classifications adopted therein.”); *See also Groundwater Conservation Dist. No. 2 v. Hawley*, 304 S.W.2d 764 (Tex. Civ. App.–Amarillo), *aff'd*, 306 S.W.2d 352 (Tex. 1957) (holding constitutional provisions still allow the

In *Beckendorff v. Harris - Galveston Coastal Subsidence District*, 558 S.W.2d 75 (Tex. Civ. App.–Houston [14th Dist.] 1977), *aff'd*, 563 S.W.2d 239 (Tex. 1978), a number of groundwater users in the Harris-Galveston Coastal Subsidence District filed suit challenging the constitutionality of the District’s enabling legislation. The users argued that Article XVI, § 59 of the Texas Constitution (Conservation Amendment) does not authorize the creation of subsidence districts, and that the user fee, as well as other parts of the Act, violated their equal protection rights. The court found that since the ultimate purpose of the District was to control flooding, an authorized purpose under Article XVI, § 59, there was no constitutional problem with the District’s creation.¹ Finally, the court held that there was no constitutional equal protection violation in the regulation of production within the boundaries of the District while not providing for the regulation of production in areas outside the District, which the users argued contributed more to the subsidence problem, or from the fact that different wells have different effects on groundwater withdrawal. The court noted that equal protection relates to persons and not to areas, and that states have wide discretion “in determining whether laws shall apply statewide or only in certain counties, the Legislature having in mind the needs and desires of each.”² The court also determined that the Legislature may implement its programs step by step, “adopting regulations that only partially ameliorate a perceived evil and deferring complete elimination of the evil to future regulations.”³

Statutory Authority

Chapter 36 of the Texas Water Code provides general statutory authority for regulation of groundwater by districts. Additionally, some districts have specific enabling statutes that provide more regulatory powers. Both sources must be checked to determine a particular district’s specific statutory powers.

To determine whether sufficient statutory authority was provided to an agency, a reviewing court first looks at how the Legislature intended the courts to review an agency’s power. The Texas Supreme Court, in *Sipriano*, emphasized that Water Code § 36.0015 explicitly states that groundwater districts are the State’s preferred method of groundwater management.⁴ This provision implies that the Legislature intended a *broad delegation of authority* to these districts, in order for this preference to be achieved. Such a delegation is significant when evaluating a claim that a particular regulation is not specifically authorized by statute.

Similarly, in light of the debate between private property rights and the need for regulation of groundwater, § 36.002 provides a powerful affirmation by the Texas Legislature of groundwater districts’ broad authority to regulate groundwater use and production no matter what degree of ownership rights landowners may ultimately be found to possess. Section 36.002 states clearly

Legislature the power to adopt any classification it sees fit, provided there is any reasonable basis for the classification).

¹ *Id.* at 80.

² *Id.* at 81.

³ *Id.*

⁴ TEX. WATER CODE ANN. § 36.0015.

that whatever those rights are, they *may be limited or altered by district rules*.¹ While the reasonableness of any particular regulation may depend in large part on the facts, it does not appear that it can be argued that a groundwater regulation affects a taking of private property requiring compensation merely because the regulation, in some manner, limits or alters the use or production of groundwater. Again, this is in accord with the kind of regulatory authority that Texas courts have upheld for many years in regard to oil and gas production.²

Regulations may be tailored to specific aquifer characteristics

How a district regulates should depend in part on the type of aquifer regulated. Chapter 36 expressly authorizes districts to take hydrologic differences into consideration.³ In a high-recharge aquifer district, a production limit goal may be to establish levels of discharge equal to recharge, thus, sustaining water levels in the aquifer.⁴ In a low-recharge aquifer, where any use of groundwater depletes the aquifer, a groundwater district may establish different production limits. This may include, for example, implementing rules to assure that 50 percent of reserves in a very low-recharge aquifer are retained for 50 years as set forth in the Panhandle Water Planning Group's Regional Water Plan.⁵

District authority to regulate groundwater production and consider off-site impacts through rulemaking

Groundwater districts' general rulemaking authority is set forth in § 36.101. Pursuant to this section, a district may limit production based on tract size to conserve, preserve, and protect groundwater and to carry out duties under Chapter 36.⁶ Specifically, authorizing production limits to be based on tract size to achieve a district's conservation goal clearly curtails the rule of capture's doctrine allowing a small tract landowner to produce as much water as a large tract owner. Production limits based in part on surface acreage have been in effect for several decades for oil and gas production.⁷ Additionally, Section 36.101(a) requires that, "[d]uring the rulemaking process the board shall consider *all groundwater uses and needs* and shall develop rules which are fair and impartial (emphasis added)." Arguably, the required consideration of "all groundwater uses and needs" includes the uses and needs of landowners overlying an aquifer that may not currently be permitted or producing any groundwater, as well as the uses and needs of future generations.

¹ TEX. WATER CODE ANN. § 36.002.

² See *supra* discussion on police powers and takings.

³ TEX. WATER CODE ANN. § 36.116(e)(1).

⁴ See Ronald Kaiser & Frank F. Skillern, *Deep Trouble: Options for Managing the Hidden Threat of Aquifer Depletion in Texas*, 32 Tex. Tech L. Rev. 249, 262 (2001) (stating "the concept of groundwater sustainability has universal appeal, but it has proven to be an elusive concept to implement. Several states have struggled with sustainability issues and have adopted different management strategies for dealing with the problem.")

⁵ See Texas Water Development Board, *Water for Texas—2002* at 86 (January 2002).

⁶ TEX. WATER CODE ANN. § 36.101(a).

⁷ See, e.g., *Railroad Commission v. Rowan & Nichols Oil Co.*, 310 U.S. 573, 60 S.Ct. 1021, 84 L.Ed. 1368 (1940).

Districts authorized to minimize drawdown as far as practicable

Sections 36.116(a)(2) and (e)(2) set forth a variety of specific means by which groundwater districts may limit groundwater production for certain statutorily specified purposes.¹ Section 36.116(a)(2) specifically authorizes a district *to minimize as far as practicable the drawdown of the water table* by setting production limits on wells by rule and limiting production based on acreage, among other things. The concept of minimizing drawdown as far as practicable will have very different applications in high-recharge aquifers than low-recharge aquifers. In high-recharge aquifers, it is reasonable to exercise this authority in a manner that requires that aquifer levels be sustained. In aquifers with virtually no recharge, if any use is to be made of the water, some drawdown will occur. However, in such a situation, the authority to *minimize* drawdown as far as practicable appears to be clear authority for districts to restrict the *rate* of decline in a low-recharge aquifer.

District powers to regulate production through its approved management plan

Since their inception in 1949, groundwater districts have been authorized to develop plans for the management of groundwater within the district.² Amendments to Chapter 36 in Senate Bill 1 required much more specific detail in these plans. These amendments also appear to provide districts significantly expanded rulemaking authority to implement its required plan.³ Before granting or denying any permit, a groundwater district is required to determine whether it is consistent with its management plan.⁴ A particular management plan, therefore, may establish the district policy regarding what types of permits it will and will not issue. This may include permits which deplete an aquifer at a certain rate. By mandating regulation in conformity with a greater plan on a district, regional, and statewide level, this process necessarily nudges districts forward in their regulatory efforts and, hopefully, will encourage regional consistency.

District powers to regulate production through permitting

Significant aspects of groundwater districts' statutory powers are found in provisions regarding its permitting authority. A district "shall consider" in its decision to grant or deny a permit, impacts on (1) groundwater resources, (2) surface water resources, and (3) existing permit holders.⁵ This constitutes an apparently broad delegation of authority to condition and, even deny permits, based on concerns regarding *anticipated off-site impacts* from proposed production. It appears that authority to deny a permit could particularly be exercised in instances where a

¹ TEX. WATER CODE ANN. §§ 36.116(a)(2) and (e)(2).

² Act of June 2, 1949, 51st Leg., R.S., ch. 306, 1949 Tex. Gen. Laws 559 (now codified at TEX. WATER CODE ANN. ch. 36 (Vernon 2000 & Supp. 2004)).

³ Specifically, Section 36.1071(f) states that, "[t]he district shall adopt rules necessary to implement the management plan." In addition, the Texas Supreme Court in *Sipriano*, in anticipating significant changes in groundwater regulation as a result of Senate Bill 1, arguably has interpreted Senate Bill 1 as giving groundwater districts in 1997 a broad new delegation of power. *Sipriano* at 79-80.

⁴ TEX. WATER CODE ANN. § 36.113(d)(4).

⁵ TEX. WATER CODE ANN. § 36.113(d)(2).

district has developed a written rule outlining what constitutes unreasonable impacts on ground or surface water resources or existing permit holders.

Permits may be issued subject to a district's rules under § 36.113(f).

Perhaps, most significantly, regarding a district's permitting authority, Chapter 36 makes clear that a permit issued by a groundwater district may be later modified by rules adopted by the district. Section 36.113(f) states that permits may be issued subject to the rules of the district. This provision is critical to effective and meaningful groundwater regulation as new studies results of tests and monitoring, changes in management goals, including changes for consistency with regional and state plans, may all require that permits be brought in line with these changes or new information. Again, what is reasonable in terms of modifying permits depends greatly on the facts of the situation.

Under § 36.113(e), districts may impose more restrictive conditions on new permits

Within a district's permitting power, as well, under § 36.113(e) is authority for a district to impose more restrictive conditions on new permit applications and increased use by historical users as long as certain criteria are met.¹ These authorizations obviously allow districts to protect historical use. Such protections have the ability to radically change the way most groundwater districts have regulated production. How a court treats such a regulation, if similar areas have a different approach, will be interesting. An example of how a district with very specific powers to treat existing use differently than new use is the Edwards Aquifer Act.²

Districts specifically authorized to limit rate and amount of withdrawal as condition of permit

Section 36.1131(b)(8) authorizes districts to include in a permit, conditions and restrictions on the rate and amount of withdrawal. This authorizes districts to include in permits, the pumping restrictions authorized under §§ 36.116(a)(2) and (e)(2). Compliance with an annual acceptable decline rate in a low-recharge aquifer is an example of one such restriction.

Districts may not impose more restrictive permit conditions on transporters of groundwater

Groundwater districts, pursuant to § 36.122(a), apparently have authority to consider additional factors in their decision to grant or deny a permit that proposes the transfer of groundwater outside of a district's boundaries.³ However, with the exception of authority to impose a reasonable export fee on water transported out of the district, under § 36.122(c) "the district may not impose more restrictive permit conditions on transporters than the district imposes on existing in-district users."⁴

¹ TEX. WATER CODE ANN. § 36.113 (e).

² Act of Sept. 1, 1993, 73d Leg., R.S., ch. 626, 1993 Tex. Gen. Laws 2350-2372.

³ TEX. WATER CODE ANN. § 36.122(a).

⁴ TEX. WATER CODE ANN. § 36.122(c).

Case Law Regarding Groundwater District Regulation

In evaluating the regulatory action of a groundwater district, attacks can be based on constitutional grounds, district creation issues, lack of statutory authority to promulgate a specific rule, or lack of reasonableness of an otherwise valid rule. The constitutional basis for regulation has been discussed above. The cases discussing the remainder of the potential challenges are discussed below.

Challenges to a District's Creation or Authority to Promulgate a Specific Rule

There have been very few cases addressing the subject of the validity of a groundwater district's creation or the propriety of the district's rules. These cases are summarized for your reference:

1. *Board of Water Engineers v. Colorado River Municipal Water District*, 254 S.W.2d 369 (Tex. 1953). CRMWD alleged that the Board of Water Engineers' order creating an underground water district was not supported by substantial evidence, thus the district did not validly exist and all its rules and regulations were void. The Court dismissed the case because CRMWD had permitted seven months to elapse from the time of the order creating the district, and because CRMWD had tacitly recognized the district by having representatives meet with the district's directors.
2. *Bryson v. High Plains Underground Water Conservation District No. 1*, 297 S.W.2d 117 (Tex. 1956). At the request of the district, the trial court permanently enjoined a landowner from producing water from a well without obtaining a permit from the district. The landowner appealed directly to the Supreme Court. In order for the Supreme Court to have jurisdiction of a direct appeal, a question of the constitutionality of a state statute or order of a state board of commission must have been raised in the trial court. Although properly raised and ruled upon by the trial court, the landowner's grounds for appeal did not raise an issue with regard to the constitutionality of the statute. As a result, the Supreme Court dismissed the landowner's appeal.
3. *Ground Water Conservation District No. 2 v. Hawley*, 304 S.W.2d 764 (Tex. Civ. App.—Amarillo, writ ref'd n.r.e.), *aff'd*, 306 S.W.2d 352 (Tex. 1957). A landowner within the district filed suit against the district seeking to have his land of 12,105 acres excluded from the district. The district had denied the landowner's application for exclusion. After institution of the suit another landowner, owning 300 acres, intervened when the district denied his application for exclusion because his land was less than 640 acres. Article 7880-3c provided that only tracts more than 640 acres could not be excluded. The court held that there was no reasonable basis for discriminating against the small landowner and that the statute violated equal protection rights.

4. *Shaddix v. Kendrick*, 419 S.W.2d 908 (Tex. Civ. App.–El Paso 1967), *rev'd*, 430 S.W.2d 461 (Tex. 1968). Resident taxpayers in a district challenged the formation and operation of the district. The trial court held that as a result of an adverse vote in the confirmation election, the district was not validly created. The trial court also held that the debts of the district should be paid pro rata by the county commissioners court of each county within the district. The Supreme Court upheld the trial court's order with regard to the confirmation election but reversed the trial court with regard to the payment of the district's expenses.
5. *Jackson v. Texas Water Rights Commission*, 512 S.W.2d 696 (Tex. Civ. App.–Beaumont 1974, no writ). Landowners challenged the validity of an order of the Texas Water Rights Commission creating an underground water district. The case was dismissed for mootness after a majority voted against confirmation of the district.
6. *Lewis Cox & Son, Inc. v. High Plains Underground Water Conservation District No. 1*, 538 S.W.2d 659 (Tex. Civ. App.–Amarillo 1976, writ *ref'd n.r.e.*). An owner of an irrigation well sued for a declaratory judgment regarding enforcement of a district's order that he close or re-equip his well so the well could not produce more water than allowed by the district's spacing rules. The district's order was issued nearly seven years after the district granted a permit for the well authorizing production in excess of the spacing rules. The court rejected an argument that the district was barred by the statute of limitations, laches, and estoppel to enforce the spacing rules. The court held that underground water districts stand on the same footing as counties and that neither the statute of limitations, laches, nor estoppel was available to prevent enforcement of the order.
7. In *Creedmoor Maha Water Supply Corp. v. Barton Springs – Edwards Aquifer Conservation Dist.*, 784 S.W.2d 79 (Tex. App.–Austin 1989, writ denied), the Austin Court of Appeals sustained both the constitutionality of the legislation creating the Barton Springs – Edwards Aquifer Conservation District and the District's rules. The court found the fees to be charged to support the District constitutional, that is, they were not a tax, but rather were fees reasonably related to the regulation of groundwater within the district.¹ The court also found the classifications between levels of water users to be neither arbitrary nor unreasonable. *Id.* at 82.

Reasonableness of a District's Rule

Whether a groundwater regulation that is otherwise valid is a reasonable exercise of a district's regulatory authority is ultimately decided by the courts based upon an assessment of the facts in

¹*Accord Beckendorff v. Harris-Galveston Coastal Subsidence District*, 558 S.W.2d 75, 82 (Tex. Civ. App.–Houston [14th Dist.] 1977), *aff'd*, 563 S.W.2d 239 (Tex. 1978) (user fee was a regulatory measure because district's enabling legislation contemplated regulation of groundwater production to be achieved in large part by conditioning the issuance of annual permits upon payment of fee).

a particular situation. A regulation facing judicial review is required to meet a reasonable basis test under the substantial evidence rule. Challenges solely to the reasonableness of a regulation are very difficult to win. As can be seen below, with one exception, these opinions reflect judicial deference to agency decisions and support for groundwater regulation. The one exception, *High Plains*, appears to be an aberration, more likely the result of the bad facts for the district than of a trend away from judicial deferral to a groundwater district.¹

Substantial evidence test requires that a groundwater district's actions have a reasonable basis to withstand judicial review

Water Code § 36.253 establishes that judicial review of any law, rule, or order of a groundwater district is governed by the substantial evidence rule as defined under the Administrative Procedure Act.² In a substantial evidence review, the Texas Supreme Court in *Railroad Commission v. Torch Operating Co.*, 912 S.W.2d 790 (Tex. 1995) has held that “[t]he issue for the reviewing court is not whether the agency reached the correct conclusion, but rather whether there is some reasonable basis in the record for the action taken by the agency.”³

At dispute in *Torch Operating Co.* was whether the Texas Railroad Commission had authority to exempt an operator from temporary field rules based on lack of notice when Commission rules did not specifically require notice.⁴ The court examined whether substantial evidence existed in the record to support the agency’s decision. Regarding this review, the court explained that, “[t]his is a limited standard of review that gives *significant deference* to the agency in its field of expertise (emphasis added)”⁵ and does not allow a court to substitute its judgment for that of the agency. The court further explained that, “[s]ubstantial evidence requires only more than a mere scintilla, and ‘the evidence on the record actually may preponderate against the decision of the agency and, nonetheless, amount to substantial evidence.’”⁶ Regarding whether the record provided a reasonable basis for the agency decision, the court held that, “[g]iven the *circumstances* in this case, it was not unreasonable for the Commission to determine that [the leaseholder’s] rights were materially affected by the proposed temporary field rules, and that [the leaseholder] was therefore entitled to notice of the hearing (emphasis added).”⁷

¹ How a court would interpret statutory authority, when uncertain, should depend upon how a district interprets the statute. The court in *Beckendorff v. Harris-Galveston Coastal Subsidence District*, 558 S.W.2d 75, 82 (Tex. Civ. App.—Houston [14th Dist.] 1977), *aff’d*, 563 S.W.2d 239 (Tex. 1978) held in the instance of a subsidence district, like groundwater districts created pursuant to the Conservation Amendment, that, “where the meaning of the provisions of an act is unclear the interpretation given them by the administrative agency charged with its implementation is entitled great weight.”

² Importantly, under § 36.253, the challenged law, rule, order, or act is deemed *prima facie* valid and the burden of proof is on the petitioner.

³ *Id.* at 792.

⁴ *Id.* at 790-1.

⁵ *Id.* at 792.

⁶ *Id.* at 792-3.

⁷ *Id.* at 793.

High Plains justice—court finds a groundwater district’s actions unreasonable

The *South Plains Lamesa Railroad v. High Plains Underground Water Conservation District No. 1*, 52 S.W.3d 770 (2001) case provides an example of what happens when a district acts in a fashion that a court finds to be unreasonable. In this case, after a permittee had drilled and equipped a well at a cost of \$30,000, the district passed a motion revoking the permit and, upon the applicants’ re-filing of an application that remedied the alleged deficiencies, denied the new application “to prevent a disproportionate taking of water.”¹ The district’s action in revoking and denying a permit were found to be improper by the *High Plains* court, as the district’s rules contained no provisions that would authorize denial or revocation of a permit because a well would produce a disproportionate amount of water.² In addition, the court held that: the action of the District prohibiting “a disproportionate amount of water to be pumped as it relates to tract size” was not otherwise authorized by statute because (1) such authority was not clearly authorized by the Legislature, (2) the statute did not provide reasonable standards to guide the District in exercising its powers, (3) the District was not authorized to deny a permit to prohibit the pumping of a disproportionate amount of water to be pumped as it relates to tract size based upon its alleged discretionary power.³

Justice Quinn, in a concurring opinion, made it clear that the court did not consider the *actions* of the district reasonable. The Judge further explained that:

[The District’s] Rule 8 said nothing about a minimum number of acres needed to obtain particular well permits. So, to use that factor as a basis to revoke a permit *already issued* and deny another application pending issuance constitutes a deprivation of fundamental fairness.⁴

Again, the determination of reasonableness ultimately turned on the facts. The fact that the district had issued a permit and allowed the permittee to spend \$30,000 in completing a well and then revoked the permit, as can be gleaned from Justice Quinn’s concurring opinion, offended the court’s sense of justice. It is important to note that, in 2001, the Legislature made significant amendments to the Water Code authorizing districts to regulate groundwater production on tract size, and these make much of the analysis in *High Plains* irrelevant.⁵ It must be observed as well that some of the analysis and conclusions in the *High Plains* opinion has dubious value as precedent. No writ was filed for the *High Plains* case, so there is no indication of approval of its analysis by the Texas Supreme Court. The court also may have been guided more by a desire to do justice in a particular instance, than conducting a completely fair analysis of groundwater districts’ statutory authority. For example, the *High Plains* court concluded that, pursuant to § 36.002 recognizing landowners’ rights in groundwater, the rule of capture was the *favored* public policy and thus groundwater could not be otherwise regulated in absence of “reasonable

¹ *Id.* at 774.

² *Id.* at 778.

³ *Id.* at 778-79.

⁴ *Id.* at 782.

⁵ See above discussion on district authority to regulate under Chapter 36 of the Water Code. Districts now have express authority to regulate production on tract size.

standards to guide the agency.”¹ The court’s assertion in *High Plains* appears to be at odds with the more express statement of public policy that groundwater districts are the Legislature’s preferred method of groundwater management, as affirmed by the Texas Supreme Court in *Sipriano*. Additionally, the court in the *Comanche Springs* case recognized that, contrary to the *High Plains* court, the rule of capture gave way to a correlative rights concept in a groundwater district.²

Despite the explicit legislative preference for management by districts, rather than by the rule of capture or otherwise, the court in *High Plains* appears to take the position that, without very clear statutory authority, a district cannot regulate in a manner contrary to the rule of capture. In this regard, the court appeared to find support for its narrow reading of a district’s authority by referring to the statutory powers of types of water districts designed for utility provision having very limited regulatory power, instead of the powers of a regulatory agency, invoking the police powers. A groundwater district is primarily a regulatory agency equivalent to the Railroad Commission, albeit with a smaller territorial jurisdiction. An administrative agency has such powers as are expressly granted or are necessarily implied to effectuate the objectives of those powers expressly granted.³ In determining the validity of a rule, a court must give consideration to all applicable sections of its enabling authority, not just one particular section.⁴ Texas court have held that, “[t]he determining factor . . . whether . . . a particular administrative agency has exceeded its rule-making powers is that the rule’s provisions must be in harmony with the general objectives of the Act involved.”⁵ The court in *Beckendorff* held in the instance of a subsidence district, like groundwater districts created pursuant to the Conservation Amendment, that, “where the meaning of the provisions of an act is unclear the interpretation given them by the administrative agency charged with its implementation is entitled great weight.”

¹ The court in *High Plains* acknowledged that pursuant to § 36.002 in effect at that time any ownership rights in groundwater were “subject to the rules promulgated by the district,” however the court concluded that, “the statute does not establish reasonable standards to guide the agency in exercising its rule making power as applied to the expressed public policy favoring the rule of capture.” *Id.* at 780.

² The court in *Pecos County Water Control and Imp. Dist. No. 1 v. Williams*, 271 S.W.2d 503, 505 (Tex. Civ. App.—El Paso 1954, writ ref’d n.r.e.) explained that, “[i]n the field of oil and gas correlative production was created by specific statutory authority, which authority expressly recognizes the ownership of the surface owner and merely regulates the production of said oil and gas and is therefore administrative in nature. There is no similar statute in this field except such as is found in those permitting creation of a water district.”

³ See, e.g., *Stauffer v. City of San Antonio*, 344 S.W.2d 158, 160 (Tex. 1961) (City Civil Service Commission); *Sexton v. Mount Olivet Cemetery Ass’n*, 720 S.W.2d 129, 137 (Tex. App.—Austin 1986, writ ref’d n.r.e.); *State Board of Insurance v. Deffebach*, 631 S.W.2d 794, 798 (Tex. App.—Austin 1982, writ ref’d n.r.e.) (“an agency can adopt only such rules as are authorized by and consistent with its statutory authority.”); *Dallas County Bail Bond Bd. v. Stein*, 771 S.W.2d 577, 580 (Tex. App.—Dallas 1989, writ denied) (holding an agency’s authority to promulgate rules and regulations “may be expressly conferred on it by statute or implied from other powers and duties given or imposed by statute.”); *Railroad Comm’n v. Atchison, Topeka*, 609 S.W.2d 641, 643 (Tex. Civ. App.—Austin 1980, writ ref’d n.r.e.); See also *State v. Jackson*, 376 S.W.2d 341, 344 (Tex. 1964); *Stauffer v. City of San Antonio*, 162 Tex. 13, 344 S.W.2d 158, 160 (1961); *Dallas County Bail Bd. v. Stein*, 771 S.W.2d at 580; *Gerst v. Oak Cliff Savings & Loan Ass’n*, 432 S.W.2d 702, 706 (Tex. 1968) (“The only requirement is that an agency’s rules must be consistent with the laws of this state.”).

⁴ *Gerst v. Oak Cliff Savings & Loan Ass’n*, 432 S.W.2d 702, 706 (Tex. 1968).

⁵ *Id.*; *State Board of Insurance v. Deffebach*, 631 S.W.2d 794, 798 (Tex. App. 1982).

The Texas Supreme Court has stated the test for reviewing the validity of administrative rules as follows:

Courts must uphold “legislative” administrative rules if they are reasonable. The rules need not be, in the court’s opinion, wise, desirable, or even necessary. [1 K. Davis, *Administrative Law Treatise*, § 5.05 (1958)]. Such rules need only be based on some legitimate position by the administrative agency involved. *Day v. United States*, 611 F.2d 1122 (5th Cir. 1980). Moreover, courts will presume that facts exist which justify the rules’ promulgation. *Texas Liquor Control Board v. Attic Club, Inc.*, 457 S.W.2d 41 (Tex. 1970).

The Rule at issue is a “legislative” administrative rule because it is based on a grant of legislative power. 1 K. Davis, *supra*, at § 5.03. *Bullock v. Hewlett-Packard Co.*, 628 S.W.2d 754 (Tex. 1982).

When a regulatory agency is exercising its police power, the presumption of existence of facts is further strengthened where the regulation is adopted after notice and hearing.¹

In light of the broad powers given to a district in the first place in issuing permits, it would be virtually impossible for the Legislature to list all the factors that a board could consider when deciding whether to require a permit. The most obvious ones are set out in Chapter 36. So long as the district’s rules provide adequate standards for the board to consider when exercising its discretion and the district’s action is otherwise defensible, a court in the future should not have such a constrained view of a district’s regulatory powers.

The *High Plains* court’s analysis of the district’s authority pursuant to § 36.113(d)(2) particularly seems to miss the mark. This section, at that time, required a district in granting or denying a permit to consider whether the proposed use of the water unreasonably affected existing groundwater and surface water resources.² The court interpreted narrowly the district’s authority under the provision, finding it “not applicable because it is concerned with the proposed use of water and not the size of the tract where the well is located.”³ Setting aside the unfortunate actions of the district, a broader interpretation of the authority under § 36.113(d)(2) would conceivably provide districts the power to deny an application to produce a significant amount of groundwater from a small tract based on unreasonable effects to existing groundwater resources. A supporting rationale would arguably be that, if numerous small tract landowners produced disproportionately large amounts of groundwater, the total impact might unreasonably affect groundwater resources in an aquifer.⁴

¹ *Texas Liquor Control Board v. Attic Club, Inc.*, 457 S.W.2d 41, 43-44 (Tex. 1970).

² In 2001, the Legislature added the requirement that districts also consider existing permit holders.

³ *Id.* at 781.

⁴ The court in *Beckendorff v. Harris-Galveston Coastal Subsidence District*, 558 S.W.2d 75, 81 (Tex. Civ. App.—Houston [14th Dist.] 1977), *aff’d*, 563 S.W.2d 239 (Tex. 1978), held that “[a]n individual’s action may be lawfully regulated when it works in concert with others’ actions to produce an effect, even though the individual action of itself would be incapable of producing the effect, or is de minimus.”

In a still more constrained reading of this provision, the court stated that this requirement “does not apply because water withdrawal may be limited to prevent waste, but prevention of waste was not the basis of the district’s action.”¹ The court’s language suggests that production limits could *only* be for the purpose of preventing waste. The opinion failed to mention the district’s authority to regulate production for *other* purposes, including minimizing drawdown of the aquifer, which would appear to be particularly applicable and which the court earlier in its opinion had recognized as a valid reason for restricting production.² Production limits based on tract size are a practical means for limiting production and, thus, minimizing drawdown. This basis had been commonly used for several decades in oil and gas regulation in conjunction with other factors. The court’s analysis here seems to also say that a permittee can cause unreasonable effects on groundwater or surface water as long as they do not cause waste.

Railroad Commission production limits upheld by U.S. Supreme Court

Of interest regarding a determination of reasonableness of groundwater districts’ actions, particularly regarding the setting of production limits, are two U.S. Supreme Court decisions, which determined that field proration schemes issued by the Railroad Commission did not constitute a violation of due process rights under the Fourteenth Amendment. These are *Railroad Commission v. Rowan & Nichols Oil Co.*, 310 U.S. 573, 60 S.Ct. 1021 84 L.Ed. 1368 (1940) (herein “*Rowan I*”), and *Railroad Commission v. Rowan & Nichols Oil Co.*, 311 U.S. 570, 61 S.Ct. 343 85 L.Ed. 358 (1940) (herein “*Rowan II*”). The Court in *Rowan I* specifically noted that the “reasonable basis” requirement for proration schemes in the Texas statute opened up the same inquiry resulting from the claims under the Due Process Clause.³ In *Rowan I*, the Railroad Commission had issued rules that had given a greater allowable to marginal wells, many of which were on smaller tracts, on the basis that, without the allowable, it would not have been economical to even drill the marginal well. The production limits in the proration scheme were based in part on amount of surface acreage and in part on an allowable issued by the Commission. The alleged result of the greater allowable for marginal wells was that wells on small tracts could essentially produce the same amount of oil as wells on larger tracts; a situation which the larger tract leaseholders claimed was confiscatory. The Court noted conflicting expert opinion on the effects of the exception for marginal wells and ultimately concluded that, “[i]t is not for the federal courts to supplant the Commission’s judgment even in the face of convincing proof that a different result would have been better.”⁴ In *Rowan II*, the Commission had adjusted its proration scheme and added factors which took into consideration “two other factors—bottom hole pressure and the quality of the surrounding sand of the wells . . .”⁵ The Court again gave deference to the expertise of the Commission declaring that: “[t]he real answer to any claims of

¹ *Id.*

² Regarding § 36.116 the court stated, “[t]his section authorizes a district to provide for well spacing and regulation of production to (1) minimize the drawdown of the water table or (2) the reduction of artesian pressure (3) to control subsidence or (4) to prevent waste.” *Id.* at 777.

³ *Id.* at 584.

⁴ *Id.*

⁵ *Rowan II* at 573.

inequity or to any need of adjustment to shifting circumstances is the continuing supervisory power of the expert commission.”¹

Should Texas courts give the same level of deference to groundwater districts and their methods of setting well production limits as given by the U.S. Supreme Court to actions of the Railroad Commission in its *Rowan I* and *Rowan II* opinions, then groundwater districts would apparently have broad authority to regulate production by various means.

Recommendations

Numerous gaps persist in the Texas groundwater regulatory scheme. Recently, Professors Kaiser and Skillern have identified three critical areas of concern in Texas groundwater law related to the effects of the rule of capture: well interference, aquifer over-drafting, and aquifer mining.² In describing these areas of concern, these commentators observed that, “[m]ost well interference problems arise when high-capacity commercial, irrigation, and municipal wells are located near lower-capacity domestic wells.”³

The consequences of over-drafting include progressively higher water costs, subsidence, and water quality degradation.⁴ In addition, aquifer mining reduces the State’s options when responding to dry spells and drought and may impact future economic opportunities.⁵ In most instances, groundwater districts can alleviate these problems if they are created in areas of concern. Nevertheless, there is room for improvement in the legislation authorizing groundwater districts and the State’s general approach to groundwater district regulation. Some areas for consideration that have been identified are discussed below.

Further Support for Creation of Additional Districts or Annexation to Existing Districts and Additional Guidance for Consistency

Groundwater districts are increasing, but are still a patchwork quilt over Texas. The Legislature may want to consider providing further support for the establishment of additional groundwater districts or annexation of areas having groundwater supplies into existing districts. With more districts, there will be an even greater patchwork quilt of district rules than now. For this reason and for the sake of consistency among similarly situated districts, the Legislature may want to provide guidance to districts by setting forth both the statutory powers and duties of groundwater districts in more detail.

¹ *Id.* at 577.

² Ronald Kaiser & Frank F. Skillern, *Deep Trouble: Options for Managing the Hidden Threat of Aquifer Depletion in Texas*, 32 TEX. TECH L. REV. 249, 255-58 (2001) (stating “[o]ver-drafting of aquifers is a significant Texas problem. This condition results from withdrawing water from an aquifer at a rate faster than its natural, or artificial, recharge rate. If this practice continues for a long period of time or, if the aquifer has limited or little recharge, over-drafting is called mining.”)

³ *Id.* at 255.

⁴ *Id.* at 257.

⁵ *Id.*

More Authority to Districts for Protecting Other Landowners from Drainage

Currently, Chapter 36 of the Water Code lacks sufficient guidance regarding the extent that groundwater districts can protect landowners¹ from unreasonable effects of drainage by others' wells on adjacent or nearby property, especially landowners not currently using their groundwater rights. Chapter 36 does require districts in the permitting process to consider whether a proposed use unreasonably affects existing permit holders, but provides no further direction regarding what constitutes an unreasonable effect and what action a district may take if it determines unreasonable impacts exist. While district regulation of production or aquifer depletion provides ancillary benefits to non-producing landowners, there may be a limit to district rulemaking to provide this protection. This objective may be accomplished by districts simply by providing explicit authority to consider unreasonable impacts on other landowners, whether currently producing or not, and authority to take reasonable and appropriate action in setting production limits through the planning, rulemaking, and permitting process which are reasonably protective of other landowners' continuing access to groundwater, if such protection is possible. More radical approaches may be to authorize compulsory pooling or field unitization.

Provide More Explicit Authority to Districts for Regulating Depletion in Low-Recharge Aquifers

One approach to more extensive regulation in low-recharge aquifers is to have a state or regional policy developed after local and regional input to establish depletion targets. Another approach may be more specific legislative support to districts for depletion management of low-recharge aquifers, in addition to existing authority that include production limits and management plan implementation.

Authorization to Require Mitigation to Offset Impacts

The Legislature may want to consider providing clear authorization for mitigation to offset impacts of particular types of high impact projects comparable to the Texas Commission on Environmental Quality mitigation requirements for surface water projects.

Further Clarify District Authority to Apply New Regulations to Existing Uses

In Chapter 36 of the Water Code, the Legislature has authorized districts to issue permits subject to the district's rules. Despite the fact that districts have issued permits which are explicitly subject to the districts rules, especially regarding depletion, permittees in districts continue to argue that a district cannot require additional production limitations or requirements. If existing wells or production amounts are off limits to imposition of production limits, it may make it impractical for a district to properly respond to changed circumstances, or implement the State-mandated planning process. The Legislature may want to further clarify districts' authority in applying new regulations to existing uses, especially in fulfilling management objectives required to be developed and implemented under the State-mandated planning process.

¹ References to "landowner" herein include landowners and their assigns.

Expressly Provide that Chapter 36, along with the Rulemaking Authority Provided, Should be Interpreted Broadly

The Legislature may want to assist a broad interpretation of district authority by stating *explicitly* in Chapter 36 that districts' powers pursuant to that chapter are to be interpreted *broadly* and that the delegation of rulemaking authority by the Legislature to groundwater districts is to be considered a broad delegation, including rulemaking required to effectuate district management plans.

Protection of Springflows and Prevention of Federal Intervention in Groundwater Regulation

Many believe there is a need, through groundwater regulation, to protect springflows, especially when necessary to prevent federal intervention under the Endangered Species Act. Threat of such intervention is reported as a factor in the establishment of the Edwards Aquifer Authority.¹ Besides the Edwards Aquifer Act,² Chapter 36 may be interpreted to have a similar intent in its requirement that a district, in granting or denying a permit, consider impacts on surface water resources.³ Undeniably, in some areas, groundwater pumpage negatively impacts springflow and, as a result, affects surface water rights and the environment. Protection of springflows from some aquifers, however, may be very difficult.

Authority to Prevent Waste of Groundwater Needs Clarification

In *City of Corpus Christi v. City of Pleasanton*, 276 S.W.2d 798 (Tex. 1955), the Texas Supreme Court, interpreting a statute restricting the use of artesian well water, upheld the transportation of groundwater in a watercourse even though up to 74% of the groundwater produced was lost in transit. Significant transportation and storage losses of groundwater impact groundwater resources in the district of origin because much more groundwater must be extracted to deliver the same amount of water. Some proposed projects may lead to serious groundwater waste, particularly groundwater from aquifers being mined.⁴ Groundwater districts may already have the authority to prevent such waste,⁵ however, further clarification will ensure that another scenario like that litigated in *Corpus Christi* is prevented or to prevent unnecessary restrictions when the aquifer is not being mined. For areas still currently outside any groundwater district,

¹One article noted that, "[t]he Federal district court opinion also included threats of federal intervention if Texas failed to change State law to control water use in the Edwards Aquifer." *McCleskey, supra* at 219.

² Act of Sept. 1, 1993, 73d Leg., R.S., ch. 626, 1993 Tex. Gen. Laws 2350-2372.

³ See TEX. WATER CODE § 36.113(d)(2) (Vernon Supp. 2004).

⁴ The Star-Telegram reported, for example, that a representative for Mesa Water, Inc. stated they, "could build a pipeline from its planned Roberts County well field to a location on the Brazos, releasing water into the river north and west of Possum Kingdom Lake." Bob Cox, *Pickens' Water Plan is Getting Attention*, FT. WORTH STAR-TELEGRAM, Nov. 26, 2003, at <http://www.dfw.com/ml/dfw/business/7358165.htm>.

⁵ See Corwin W. Johnson, *The Continuing Voids in Texas Groundwater Law: Are Concepts and Terminology to Blame?*, 17 ST. MARY'S L.J. 1281 (1986).

either a statutory prohibition against such waste needs to be adopted or areas susceptible to this type of groundwater transportation need to be included within a district.

District Regulation of Transportation Should be Clarified

Section 36.122 regarding transportation of groundwater out of district, as a whole, is highly convoluted, and a district's practical authority under this statute needs clarification. Under § 36.122(f), the Legislature requires districts to consider additional factors in reviewing a proposed transfer of groundwater out of districts. Despite the authority to consider, among other things, the "projected effect of the proposed transfer on aquifer conditions, depletion, subsidence, or effects on existing permit holders or other groundwater users within the district,"¹ the statute does not permit a district to "impose more restrictive permit conditions on transporters than the district imposes on in-district users."² Thus, if a district does find under § 36.122(f)(2) that a "proposed transfer" negatively impacts aquifer conditions or permit holders, the district has no additional authority to address the special impacts. It would appear that the Legislature should authorize a different treatment for a transfer if a district finds that a proposed transfer would have a unique and negative impact in a district. This finding should serve as a rational basis under the State and Federal Constitutions for regulating that transfer in a manner different from in-district uses not causing such impacts.

Changing the Big Picture—A Job for a Select Legislative/Executive Committee?

In terms of bigger changes, several commentators have recommended more sweeping reforms based upon a review of groundwater management systems used in other states which include correlative rights, reasonable use, and prior appropriation systems, among other things. Various forms of these systems have been recommended for implementation in Texas over the years, based upon an examination of the effectiveness in other states and the compatibility with Texas current regulatory scheme. This issue requires careful study. For example, in many parts of the State, adoption of a form of regulation based on land ownership, such as reasonable use or correlative rights, could cripple municipal and industrial groundwater users that have wells on small tracts of land. These types of issues are of such a complex nature that they may be beyond the ability of a fast-paced legislative committee to handle. The Governor, Lt. Governor, and Speaker of the House may wish to establish a select groundwater committee to take up this subject. Such a committee should include a broad based group of legal and technical experts and stakeholders so that a well reasoned analysis can be provided that fairly assesses where Texas needs to go.

¹ TEX. WATER CODE § 36.122(f)(2).

² TEX. WATER CODE § 36.122(c).

Conclusion

The need for groundwater regulation in Texas is manifest and becomes more urgent with each passing year. Despite increasing numbers of groundwater districts in Texas, many areas of the State are still outside of any district boundary and are essentially subject only to the rule of capture. If these areas are to benefit from the evolving public policy to protect groundwater supplies, then it would be prudent to include these areas within a groundwater district.

Where there are districts, the Legislature has vested in groundwater districts significant authority to regulate production. If groundwater districts are indeed the Legislature's preferred method of groundwater regulation, the Legislature may quiet some of the unnecessary disputes by placing district authority to regulate in certain manners beyond any doubt, as recommended herein. The need for such action is urgent, and is better taken now rather than in the midst of a water crisis when harsh restrictions on groundwater production may become a necessity.

Chapter 4

The Rule of Capture – “*If It Ain’t Broke . . .*”

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We agree that some aspects of the English or common law rule as to underground waters are harsh and outmoded, and the rule has been severely criticized since its reaffirmation by this Court in 1955. Most of the critics, however, recognize that it has become an established rule of property law in this State, under which many citizens own land and water rights. The rule has been relied upon by thousands of farmers, industries, and municipalities in purchasing and developing vast tracts of land overlying aquifers of underground water.

– *Friendswood Dev. Co. v. Smith-Southwest Indus., Inc.*, 576 S.W.2d 21, 28-29 (Tex. 1978).

To imply now that the rule of capture has not been addressed by the Legislature is inaccurate and overlooks a comprehensive water plan in which groundwater districts and regulation of groundwater pumping are an integral part. It is also a disservice to the individuals who so willingly serve on the groundwater district boards.

– J. E. ‘Buster’ Brown, *Legislature long ago addressed state’s water issues*, AUSTIN AMERICAN-STATESMAN, Jan. 26, 2004.

Introduction

For 100 years, the legislature has had a standing invitation from the Texas judiciary to exercise its constitutional authority and modify the rule of capture if it believes that such an action would be in the best interests of the people of Texas.¹ For 100 years, the legislature has declined that invitation. Now, as the 79th Legislature approaches it is considering taking some further action regarding state policy and local management of groundwater resources. Among the study issues outlined in the first interim charge of the newly created Senate Select Committee on Water Policy are the rule of capture and the role of groundwater conservation districts.²

The rule of capture was adopted in Texas a century ago to provide a standard for resolving conflicts between adjoining property owners. Since then, as noted by the Texas Supreme Court in *Friendswood*, it has been relied upon by property owners and water suppliers throughout the state in making investments, acquiring property and planning water supplies for the future. In the authors’ opinion, abandoning the rule now is unnecessary. The vast majority of Texas’

groundwater resources are subject to regulation by groundwater conservation districts (GCDs) in which the rule of capture does not operate on an unrestrained basis.

Commentators are fond of bemoaning the harsh results produced by the rule of capture and characterizing Texas' status as "the last state still using the rule of capture" as an embarrassment. In so doing, they are wrong on both counts. Texas is not the only remaining state adhering to the rule of capture, in spite of statements by courts³ and commentators to the contrary.⁴ Several other states recognize the common law rule as their rule of groundwater ownership, although exceptions and limitations may have been applied to the rule, as in Texas. The states whose current groundwater regimes most closely resemble Texas' include Indiana, Louisiana, and Maine.⁵ Like the Texas Supreme Court in *Sipriano*, the Supreme Judicial Court of Maine has recently declined an invitation to "depart from the common law absolute dominion rule" (in that case, to adopt the groundwater use rules set forth in the Restatement (Second) of Torts § 858). The reasoning of the Maine court, in response to an argument that the common law rule is based upon faulty science, echoes the current debate in Texas:

We decline to abandon the absolute dominion rule. First, we are not convinced that the absolute dominion rule is the wrong rule for Maine. . . . Although modern science has enlightened our knowledge of groundwater, this does not mean that the rule itself has interfered with water use or has caused the development of unwise water policy. . . . Furthermore, for over a century landowners in Maine have relied on the absolute dominion rule. In the absence of reliable information that the absolute dominion rule is counterproductive and a hindrance to achieving justice, we will not depart from our prior decisions.⁶

Commentators' schemes for classifying states' groundwater laws vary; however, there are a number of other states that continue to rely on a modified version of the common law rule of capture or absolute ownership for at least some of their groundwater resources. These include Connecticut, Georgia, Mississippi, and Maryland.⁷ Other states, namely Rhode Island and Massachusetts, have been recognized as following the rule of absolute ownership, though their most recent court decisions have not squarely addressed the issue of groundwater *ownership*.⁸ Texas is comparable. Most of its groundwater production is not under an unmodified rule of capture because most of it is within groundwater conservation districts.

The fundamental purposes of the *East* court in adopting the rule of capture were to provide the certainty necessary to support the investment of capital and economic development in Texas and to provide a clear rule for resolution of conflicts between property owners.⁹ The rule of capture, as it has been implemented by the courts of Texas, fulfills these purposes admirably. Moreover, the harsh results feared by many have been infrequent in the past and are becoming less and less likely in the future. The reason for this is the availability of groundwater conservation districts that can be formed on a local option basis and provide a ready remedy to prevent abuse of the rule. The availability of these districts in areas needing groundwater management complements and limits the common law rule. As discussed in the section Groundwater Conservation Districts and Their Regulatory Approaches, most groundwater production in Texas is now regulated by GCDs. Moreover, in unregulated areas as demands on groundwater increase, the rule of capture provides a real incentive for landowners to exercise their option and form local groundwater districts, to allow effective and equitable planning and management of the resource.

This paper will examine the parameters of the rule of capture as it has been developed by Texas courts and GCDs' regulations of landowners' rights under the rule of capture. Additionally, in light of recent experience with local regulation, it offers some suggestions for refining the regulatory authority of GCDs to avoid interfering with those legitimate public policy goals that initially supported adoption of the rule of capture.

Parameters of the Rule of Capture

To What Does it Apply?

The rule of capture applies, with few exceptions, to “groundwater,” as that term is defined in the Texas Water Code – water percolating below the surface of the earth.¹⁰ Not all underground water meets this definition. Specifically, two types of underground water are considered to be property of the State, and the principles governing allocation and use of surface water apply. First, “underflow” is that portion of the flow of a surface watercourse that flows through the sand and gravel deposits beneath the surface of the bed of the stream; underflow is hydrologically connected to the surface flow of the stream and moves in the same direction.¹¹ Second, the courts make a critical distinction between percolating groundwater and groundwater flowing in well-defined and known subterranean channels and streams. The landowner's rights with respect to the latter are the same as would apply for a surface watercourse. The subsurface watercourse, however, must have all the characteristics of a surface watercourse, namely beds, banks that form a channel, and a current of water.¹²

There is a presumption, however, that all underground waters are percolating groundwater. As the Texas Supreme Court has stated:

In the absence of [evidence of an underground stream with a defined channel], the presumption is that the sources of water supply obtained by such excavations are ordinary percolating waters, which are the exclusive property of the owner of the surface of the soil, and subject to barter and sale as any other species of property.¹³

Is it a Rule of Tort Law or a Rule of Property Law?

Two labels are commonly utilized to characterize the common law rule of groundwater ownership: “absolute ownership” and “rule of capture.”¹⁴ One is clearly suggestive of a rule of property law while the other could easily be limited to resolution of damage disputes between neighboring landowners. Each label can be misleading. The term “rule of capture” is suggestive of a common law rule of decision. In fact, as discussed in the section What Does the Property Owner Actually Own?, it is a rule of property law providing that the landowner actually *owns* the groundwater located under his property, whether it is used or not.¹⁵ Similarly, as Professor Johnson has argued, the term “absolute ownership” misleads by implying that groundwater ownership is “a super-right subject to no limitation whatever, even legislative control.”¹⁶ Such an implication is incorrect. Groundwater ownership is subject to reasonable regulation through the legislature's exercise of the police power, as evidenced by the statutory groundwater conservation district scheme in place for decades in Texas.

Unlike most other western states, Texas has a general regulatory program only for surface water, and not groundwater. In Texas, surface water is considered property of the State, while groundwater is considered the property of the owner of the surface estate, and is treated much like a mineral or oil and gas. The owner, however, has only the right to pump the water. Under common law he has no right to save it for later use or protect it against use by others.

What is the “Rule of Capture” in Texas?

In *Houston & Texas Central Railway Co. v. East*,¹⁷ the Texas Supreme Court adopted the English common law rule of *Acton v. Blundell*¹⁸ that the owner of the land may pump unlimited quantities of water from under his land, regardless of the impact that action might have upon his neighbor’s ability to obtain water on his own land. Neither an injunction nor damages will lie to prevent such action.

The *Comanche Springs* case¹⁹ applied the principles of the *East* case to groundwater uses that affect surface water supplies. The plaintiff, a statutory senior appropriator of surface water, complained that the defendant’s well had reduced springflow of Comanche Springs to such an extent that insufficient water was available for irrigation. The court noted that the plaintiff’s right to use the water attached only after the water emerged from the ground. Prior to such emergence, the defendant could use any amount of percolating water, regardless of the impact upon others.²⁰

A surface estate owner need not use groundwater on the premises of the surface estate. The surface estate owner may sell the groundwater she captures below her surface estate for off-site use by a third party.²¹ The use of groundwater at a distant location, even though the majority may be lost in transit, is also permissible. In *City of Corpus Christi v. City of Pleasanton*,²² the Texas Supreme Court approved Corpus Christi’s transportation of artesian well water along 118 miles of surface watercourses to its diversion point, even though at times as much as two thirds to three fourths of the original supply was lost in transit due to evaporation, seepage, and transportation.

Only two significant limitations exist at common law on the landowner’s right to capture and use percolating water. First, the landowner cannot capture and use percolating water maliciously with the purpose of injuring a neighbor or in a manner that amounts to wanton and willful waste of the resource.²³ Second, since 1978 an action for damages would lie for the negligent pumping of groundwater that caused subsidence of neighboring land.²⁴

In the *Barshop* case decided in 1996, a unanimous Texas Supreme Court recognized another exception to the rule of capture, legislation providing for regulation of pumping.²⁵ The Edwards Aquifer Act granted the Edwards Aquifer Authority (EAA) substantial power to regulate groundwater withdrawals by well from the Edwards Aquifer.²⁶ In *Barshop*, the Court upheld the constitutionality of the Act, which imposed caps on groundwater withdrawals within the jurisdiction of the Authority, against facial challenges that the Act deprived landowners of their rights under the rule of capture. Significantly, the Court recognized the necessity of compensating landowners for rights developed under the rule of capture that were taken through regulation by the EAA,²⁷ and reserved “as applied” constitutional challenges for a later date.

In the *Ozarka* case decided by a unanimous Texas Supreme Court in 1999, the Court was urged to reconsider the holding of *East* and to change the common law rule of capture to the beneficial

purpose doctrine or a rule of reasonable use.²⁸ The rule of reason would limit the common law right of a surface owner to take water from a common reservoir by imposing liability on landowners who “unreasonably” use groundwater to their neighbors’ detriment.²⁹ Acknowledging that the efficacy of the groundwater management methods chosen and implemented by the legislature “has been a matter of considerable debate,” the Court nevertheless declined to change the rule of capture. Because of the legislature’s attempt in 1997 to improve Texas’ groundwater management through Senate Bill 1 (“SB 1”),³⁰ the Court concluded it was inappropriate at this time to “insert itself into the regulatory mix.”³¹

What Does the Property Owner Actually Own?

An issue has arisen in recent years, in both the judicial and legislative contexts,³² as a result of a strategy by some groundwater conservation districts to limit or define a property owner’s rights under the rule of capture in order to insulate GCDs against claims that their regulations “take” the property owners’ groundwater rights in the constitutional sense. The issue is whether a “vesting” requirement exists in connection with the exercise of groundwater rights, that is, must a property owner have exercised his rights by pumping and putting groundwater to use under the rule of capture in order to have a constitutionally protected property right? In *Barshop*, the EAA staked out its position on this fundamental issue, arguing that the rights of property owners to pump water in the future could not be taken by the Edwards Aquifer Act because such a right was not yet vested and therefore not constitutionally protected. The court found it unnecessary to address the issue, expressly declining “to definitively resolve the clash between property rights in water and regulation of water.”³³

The argument favoring the vesting requirement asserts that the property owner has no actual ownership interest in the groundwater beneath the surface of his land. Under this view, the rule of capture only gives the property owner a right to capture that water; until it is captured, the property owner does not actually own the water.³⁴ The contrary argument asserts that the water, like other resources beneath the surface of the land, is owned by the property owner so long as it is located beneath his land. Under this view, the fact that under the rule of capture the landowner cannot insist that the water be maintained in place does not detract from his ownership of the resource while it is there.

In the authors’ opinion, the argument for a vesting requirement misses the mark. Application of this rule, derived from surface water rights, to ownership rights in groundwater simply makes no sense. In the appropriative system for surface water, the water right holder effectively owns a license or inchoate right to appropriate a certain quantity of state water from a particular source, for a particular use. Only when such water is lawfully put to beneficial use is the water right perfected, and only at that point does the water right become vested property.³⁵ No such requirement has ever been articulated in connection with the rule of capture.

Quite to the contrary, the rule of capture’s alternative name, the rule of “absolute ownership,” as well as courts’ discussion of property owners’ rights under that rule, strongly refute the notion that the property owner has no ownership interest in groundwater beneath his property. The fact that rights under the rule of capture can, and have been, limited by local regulation does not alter the fundamental nature of groundwater ownership as a property right; every type of private property can be lawfully regulated in some way. The common law rule of groundwater

ownership is based on the idea that “he who owns the soil owns it to the lowest depth below.”³⁶ Under the rule, percolating groundwaters are considered part of the land in which they are found and therefore belong to the owner of the land.³⁷ In *East* and its subsequent major cases revisiting the common law rule, the Texas Supreme Court has repeatedly endorsed the premise that landowners have a property right in groundwater located underneath their property.³⁸ The Texas Legislature and the Attorney General have also recognized the landowner’s property rights in groundwater.³⁹

Further support for the proposition that the landowner actually owns the resource prior to reducing it to possession is provided by recent legislation. In 2003, the legislature, through House Bill 803, amended the Texas Property Code to adopt specific procedural and substantive requirements for the condemnation of groundwater rights. One requirement is that the court must consider evidence relating to the market value of the groundwater rights “as property apart from the land in addition to the local market value of the real property” and whether evidence admitted at the hearing shows “that the real property may be used by the political subdivision to develop or use the rights to groundwater for a public purpose.”⁴⁰ If such findings are made, the court may assess damages to the property owner based on separate considerations of the market value of the real property and of the groundwater rights, with a variety of specific factors that must be considered in the valuation of the groundwater rights.⁴¹ This treatment of groundwater rights as a component of property to be considered and valued apart from the land itself is entirely inconsistent with the idea that the property owner has no compensable ownership right that can be “taken” through GCD regulation.

Local Regulation of Groundwater Production and Use

Groundwater Conservation Districts

Groundwater, like other species of real property, is subject to reasonable regulation under the police power to protect the public health and welfare. Moreover, like oil and gas property rights, this general regulatory authority is supplemented by the mandates of the Conservation Amendment, Article XVI, §59 of the Texas Constitution. Exercise of the State’s regulatory authority to date has been limited to local or regional groundwater conservation districts, usually created on a local option basis, and usually based on county lines.⁴² The legislature has explicitly emphasized in recent enactments that GCDs “are the state’s preferred method of groundwater management through rules developed, adopted, and promulgated by a district” in accordance with Chapter 36 of the Texas Water Code.⁴³ In recent years, the legislature has made various amendments to the Water Code to encourage the creation of groundwater districts, whose role is to manage and protect groundwater within their jurisdiction.

GCDs can be created either by the Texas Commission on Environmental Quality (TCEQ)⁴⁴ pursuant to provisions of general law, or by special act of the legislature. By far the more common practice has been legislative action. As part of Senate Bill 2 (“SB 2”),⁴⁵ the legislature ratified or created a number of new groundwater districts, and provided a streamlined process for creation of a district upon petition of landowners to TCEQ.⁴⁶ In creating a GCD by special legislation, the legislature may modify the powers, authorities, management, or funding

mechanisms provided by general law. In *most* cases, however, the regulatory and other authority of legislatively created districts tracks those of general law districts closely.

General Law GCDs' Regulatory Powers

Regulatory authorities of a GCD are broad, and are implemented in two ways: rulemaking and permitting. First, the GCD has general authority to make and enforce rules, “including rules limiting groundwater production based on tract size or the spacing of wells, to provide for conserving, preserving, protecting, and recharging of the groundwater or of a groundwater reservoir or its subdivisions in order to control subsidence, prevent degradation of water quality, or prevent waste of groundwater”⁴⁷ Second, with the exception of “exempt wells,”⁴⁸ and “grandfathered” wells existing at the time of district creation (if the GCD chooses to exempt them), all wells in the GCD must receive a permit from the district. This permitting requirement provides an opportunity for the district to impose limits on spacing and production.

Groundwater conservation districts, however, have not had unfettered control over groundwater production and use. In the *High Plains* case,⁴⁹ the Amarillo Court of Appeals refused to recognize the authority of a district to deny or revoke permits for taking disproportionate amounts of water in relation to tract size. Reaffirming the rule of capture doctrine, the court rejected the district’s actions because GCDs lacked any “clear authority” to regulate pumping in this manner, as must be expressly given by the legislature.⁵⁰ The court further concluded that the legislature had not established reasonable standards to guide groundwater districts in exercising their rulemaking powers in this manner.⁵¹

The legislature responded to the *High Plains* decision through SB 2, amending Water Code § 36.116 to explicitly provide that a groundwater district may make and enforce rules limiting groundwater production based on tract size or well spacing.⁵² That legislation also provided that in promulgating rules limiting groundwater production, a GCD may preserve “historic use” before the effective date of the rules, “to the maximum extent practicable consistent with the district’s comprehensive management plan.”⁵³ In regulating production based on tract size or acreage, a district may consider the service needs or service area of a retail water utility.⁵⁴

In 2003, the 78th Legislature expressly provided authority for GCDs, based on their determinations of varying conditions, to adopt different rules for each aquifer, aquifer subdivision, geologic strata, or overlying area within their boundaries.⁵⁵ A district’s method of regulating groundwater production shall also be tailored according to the hydrogeological conditions of the aquifer(s) within the district, and may limit amounts of production based on contiguous surface acreage.⁵⁶

One area of particular current interest is the ability of a GCD to impose limitations on the export of groundwater from the district. Water Code § 36.122, adopted as part of SB 1 and substantially amended by SB 2, provides express but limited authority for a GCD to regulate the transfer of water out of the district. A district may promulgate rules requiring a well permit (or permit amendment) for transfers of water from the district, but may not impose more restrictive permit conditions on transporters than it imposes on existing in-district users.⁵⁷ However, a district may also impose a reasonable fee or surcharge for an export fee under one of several statutory methods.⁵⁸

In reviewing a proposed groundwater transfer, the district shall consider 1) the availability of water in the district and in the proposed receiving area, 2) the projected effect of the proposed transfer on aquifer conditions, depletion, subsidence, or effects on existing permit holders or other groundwater users within the district, and 3) the approved regional water plan and the district's certified management plan.⁵⁹ Permits involving a groundwater transfer must specify the amount of water that may be transferred out of the district, which may be periodically reviewed and limited, and the period for which the water may be transferred.⁶⁰ A district may not adopt rules expressly prohibiting groundwater export, and may not deny a permit based on the fact that the applicant seeks to transfer groundwater, but may limit a permit if the above mentioned conditions warrant.⁶¹

Water Management and Planning

Each groundwater district is required to develop a comprehensive management plan that addresses various management goals. Those goals, as applicable, include promoting the most efficient use of groundwater, controlling and preventing waste and subsidence, and addressing conjunctive surface water management issues, natural resource issues, drought conditions, and conservation.⁶² District management plans are to include specific objectives and performance standards, detailed actions and procedures designed to effect the plan, and estimates of useable groundwater, groundwater use, recharge, and projected water supply and demand within the district. Water supply needs are to be addressed in a manner "not in conflict" with the appropriate approved regional water plan. The district must also adopt rules necessary to implement its management plan.⁶³ The statute now requires GCDs to develop their plans (or any plan amendments) using the district's best available data, as well as any groundwater availability modeling information provided by the Texas Water Development Board (TWDB),⁶⁴ and to forward their plans to the regional water planning group for consideration in its planning process.⁶⁵ However, as discussed in the section Oversight of Groundwater Management Plans, state agencies have little or no substantive authority over the content or enforcement of GCDs' groundwater management plans.

Texas' Experience Under Local Regulation

Groundwater Conservation Districts and Their Regulatory Approaches

As of September, 2003, there were eighty-eight (88) groundwater conservation districts throughout Texas, of which 80 have been confirmed.⁶⁶ The number of districts has doubled during the last five years. Over half of the total land area of Texas is within a groundwater conservation district. Even more significantly, however, almost 90 percent of groundwater produced in Texas comes from counties with such a district.⁶⁷ Any further judicial or legislative reexamination of the rule of capture and Texas policy on groundwater management must therefore take place against the backdrop of the regulatory track record of this system of districts.

The extent to which GCDs' substantial powers are exercised and the manner in which they are exercised are determined by the directors of each local district. A recent review of the regulatory approaches of GCDs, which included information regarding all but eleven (11) of the existing districts, demonstrates that most GCDs have adopted some form of regulations over well spacing

and groundwater production.⁶⁸ Of the districts identified with one or more types of spacing requirements, thirty-six (36) impose requirements on spacing from property lines, thirty (30) impose requirements on spacing from other wells, and eight (8) impose some other form of spacing requirement. Twelve (12) districts have regulations limiting the number of wells that can be located in a particular acre or section. Most districts also regulate well production on acreage or some other basis. Finally, thirty (30) districts have exercised their rulemaking authority over out-of-district groundwater transfers. Thus, the possibility of harming one's neighbor under the rule of capture has been addressed by virtually all GCDs.

Districts' Experience With the Rule of Capture

Whatever potential problems that pumping under the rule of capture theoretically may present, anecdotal water use and water management history in Texas does not appear to reveal many instances in which real problems have actually developed. In two well-known cases, problems caused by overpumpage have become the catalysts for creation of special law GCDs, namely the Edwards Aquifer Authority and the Harris-Galveston Coastal Subsidence District. To evaluate the impact of pumping under the rule of capture, an email questionnaire was sent out to most of the existing districts in Texas,⁶⁹ which sought rule of capture horror stories by posing the following two questions:

- 1) Are you aware of any such "horror stories," in which pumping under the rule of capture, either before or after formation of your district, has caused serious problems? If so, please give a brief description.
- 2) Have landowners' asserted rights under the rule of capture presented a serious regulatory problem for your district? If so, please give a brief description.

As of the time of publication, responses to the questionnaire had been received from general managers or board representatives of about 40 percent of the districts surveyed. These respondents represent a variety of locations in the Panhandle, Central and Southeast Texas, and the Big Bend area, and include relatively new districts and some that have been in place for half a century. While this type of survey is admittedly nonscientific, the results are significant for what they do not contain: *Few districts responding identified a significant problem related to either of these two questions.* (In fact, the most common responses were simply an unqualified "no.")

One district described a situation in which a local municipality, immediately prior to the district's formation, had opted to drill a series of wells within close proximity to each other and stated that, while these wells have sustained to date, the district is concerned regarding their viability in the future. Another identified an extremely large well that could have significantly impacted the aquifer and springflows, had it not been subject to district regulatory efforts. Another commented that the district's setback rule had alleviated a previous problem with wells being drilled immediately adjacent to other landowners' property lines. Several districts reported having had difficulty with improperly spaced competing wells, including some instances in which larger (municipal, irrigation, or water supply corporation) wells have impacted neighboring shallow domestic wells; districts also report, however, the effectiveness of their regulatory approaches, including spacing rules and hearing processes, in alleviating such

problems. Several districts reported instances in which general overpumpage in the area had caused wells (small domestic, or even large municipal) to fail. One major district reporting such problems, however, clarified that this occurs in the area where the district's rules have not yet been phased in, and further noted that the problem has led to reluctant but widespread support for district regulation.

Other respondents' comments also emphasized the effectiveness of district rules in tempering the rule of capture and protecting private property rights. One noted that, during his district's current process of rule revision, those landowners initially expressing concerns based on the rule of capture were satisfied once they understood the protections made available through the district's regulatory authority. Several respondents noted the benefit to all area landowners of the district's aquifer monitoring and evaluation studies, but acknowledged that it takes time to overcome misperceptions and to educate their constituents regarding the function and benefits of GCD management and regulation. To be sure, some districts have encountered resistance from some landowners, to the general notion that their property or privacy rights may be infringed or to the district's specific regulatory requirements. Several districts commented on the challenges of leveling the playing field among vastly competing interests, and noted that they anticipate resistance if they attempt to impose production limits. Regulatory methods have varied significantly – in both kind and degree – among districts, depending on local demands and the unique features of each aquifer. Various respondents commented on the need for local control precisely because it is responsive to this diversity. One remarked that the combination of the rule of capture and Texas' system for local regulation works well because it compels the creation of a GCD in areas of Texas that need local regulation. He further commented, however, that districts need the money, authority and enforcement tools to do their job effectively.

Property Rights Implications of Groundwater District Regulation

Conflicts Between GCD Regulation and Landowners' Rights

Modifications of District Rules

The Texas Water Code itself recognizes the tension between groundwater ownership under the rule of capture and the power of GCDs to regulate the exercise of those rights:

The ownership and rights of the owners of the land and their lessees and assigns to groundwater are hereby recognized, and nothing in this code shall be construed as depriving or divesting the owners or their lessees and assigns of the ownership or rights, except as those rights may be limited or altered by rules promulgated by a district.⁷⁰

Groundwater rights are recognized, but they are subject to regulation within constitutional limits. GCDs' regulatory authority is limited to the powers and duties given to them by the legislature in Chapter 36.⁷¹ Moreover, at least one court has ruled that the legislative grant will be narrowly construed and will not provide discretionary authority for regulation in areas in which the

legislature had not provided clear authority or reasonable standards to guide the exercise of that authority.⁷²

The proposed rule amendments of the Panhandle Groundwater Conservation District (PGCD) provide a good case study that illustrates the fine line that GCDs must walk in their attempts to regulate local production or groundwater export.⁷³ In September 2003, the district proposed to create two new types of permits – Initial Groundwater Availability Permits (IGAPs) and Off-Site Use Permits (OSUPs). The permits are intended to facilitate water marketing. The IGAP assures the landowner and prospective purchaser that PGCD will allow a specific amount of production. After the sale, an OSUP is required for production of the water. It is a unique regulatory approach, designed to address issues raised by the water marketing efforts of Boone Pickens and others.

These PGCD rules illustrate the regulatory dilemmas facing groundwater conservation districts. May a district require permits other than those permits identified by Chapter 36? May a district require a permit for off-site use (which necessarily includes all exports) that is not required for on-site use? May a district, rather than regulating use under the rule of capture, effectively replace the rule of capture with a correlative rights doctrine?

Another proposed rule impacts a permittee within PGCD that is contemplating delivery of groundwater using the bed and banks of a state watercourse in order to avoid the expense of hundreds of miles of pipeline. Can the district, in order to prevent waste, impose a requirement that water taken off premises must be delivered through a pipeline, even though TCEQ might authorize the delivery through a bed and banks permit under Water Code § 11.042? The *Corpus Christi* case suggests that efficiency of delivery is not an issue under the rule of capture, but Chapter 36 clearly allows districts to adopt rules to prevent waste.

Other issues addressed by PGCD's pending management proposal are equally difficult. The district is considering implementing its management goal of preserving at least 50 percent of the district's groundwater resources for 50 years by establishing an annual rate-of-decline limitation that would limit the permissible rate of groundwater level decline to 1 percent per year. Aside from factual questions about this approach, serious legal issues concerning the district's authority to adopt this regulatory approach are presented. May this limitation be applied to existing permit holders, some of which have invested millions of dollars in reliance upon being able to pump water authorized by recently issued permits from the district?

GCD rules may not cause an unconstitutional "taking" of a landowner's property. Among the constitutional challenges to the Edwards Aquifer Act rejected in the *Barshop* case, the court considered several takings arguments and noted that "[e]ven the State concedes that without some provision protecting existing users from a complete shutdown of their wells, this Act would not survive constitutional scrutiny under the takings clause."⁷⁴ Also, the court stated that, assuming plaintiffs possessed a vested property right in the water beneath their land, the compensation provisions in the Act demonstrate that the legislature intends to compensate plaintiffs for any taking that may occur; thus the court concluded that the Act does not violate Article I, § 17 of the Texas Constitution.⁷⁵

Texas courts have long recognized that amendment of administrative rules may not operate to deprive a property owner of rights legally acquired in good faith under the preexisting rule. A clear example of this in the oil and gas context is presented by *Humble Oil & Refining Co. v. Railroad Commission*.⁷⁶ In that case, a tract subdivided from a larger tract in January 1932 would have been entitled to obtain a Rule 37 production permit from the Railroad Commission under the rules in effect at the time the property was subdivided and acquired. Under a subsequent amendment of the well spacing rules, the rule in effect at the time the owner applied for a permit, a permit could not be obtained on the subdivided tract. The Austin Court of Civil Appeals ruled that the owner was entitled to rely upon and obtain a permit under the prior rules. It stated:

A subsequent amendment of such spacing rule should not, however, be permitted to destroy a property right duly acquired in keeping with the provisions of such rule as they existed at the time such property was so acquired. And the right to develop said 2.5-acre tract should be determined, we think, by the provisions of rule 37 as they applied at the time the tract in question was segregated. Otherwise, an amendment to such rule, by increasing such spacings between wells, would in effect work a confiscation of vested property rights legally acquired in good faith and in keeping with such rule.⁷⁷

This analogy from the doctrine of oil and gas rights and regulation provides a useful framework within which to consider the impact on private property rights of modifications of the longstanding rule of capture for Texas groundwater. These considerations should guide regulatory efforts at the local/district level, as well as any statewide change that the legislature may contemplate.

GCDs as Players (or Pawns) in Water Marketing

Although groundwater conservation districts have little ability to prevent the marketing and export of water to meet growing municipal demands, experience in recent years demonstrates that GCDs may nonetheless be key players in the growing water market. Two recent examples demonstrate the impact that a GCD can have on water marketing by limiting or allocating production among property owners in the district.

One such example has unfolded in response to the rules proposed by the newly formed Kinney County Groundwater Conservation District, located west of San Antonio at the edge of the Edwards Aquifer. Some landowners and private water developers have challenged those rules, specifically their pumping limits and their treatment of historic uses of groundwater, as unduly and arbitrarily limiting the amount of groundwater that they might produce. In 2003, the dispute reached the Texas Legislature, with Senator Frank Madla introducing legislation that would have modified the Kinney County GCD's enabling legislation to override certain of the district's rules, among other things to protect landowners' historic uses, to require that district decisions on new permits (including spacing and/or production limitations) be based on "specific hydrogeologic conditions," and to restrict the district's use of export fee revenues.⁷⁸

In the case of the Hudspeth County Underground Water Conservation District, it is alleged that the district is being used as a vehicle for private water developers to corner available supplies in order to enhance their ability to market those supplies to El Paso or another purchaser. Because the district determined that the aquifer's sustainable supply is less than historical pumping levels,

all historic users were not recognized rights and future uses by property owners without existing uses are largely limited to domestic and livestock needs. Similarly, it has been suggested that the recent legislative expansion, tripling the area included within the district, was designed to ensure that water supplies from those areas formerly outside the district boundaries would not be available to market to El Paso.⁷⁹

These examples and others demonstrate a real need for GCDs to base their regulatory decisions upon sound scientific data, and for an efficient and adequate means of reviewing GCD regulations.

Shortcomings, Perceived and Real, in Texas' Rule of Capture/Local Regulation Scheme

It is the authors' thesis that the rule of capture, with Texas' overlay of local option regulation, "is not broke." Moreover, it has been the basis for business decisions, water supply plans and significant investments that are already in place. Thus, no overhaul or abandonment of the rule of capture is necessary or desirable. By the same token, Texas' existing law in this area is not perfect. Room for improvement exists. Potential changes regarding several specific issues, either raised in this paper or by other conference speakers, are addressed below.

Draining Shallow Wells

Under the rule of capture, no remedy exists for the nearby landowner whose shallow well is drained by a larger well. In many cases it is a problem that cannot be avoided; development of the resource will often unavoidably result in lowering the water level in the aquifer. Within a groundwater conservation district, however, it is an issue that can be successfully addressed by the district's rules and permit system.

As indicated by the non-scientific survey discussed in the section Districts' Experience with the Rule of Capture, it does not appear to be as large a problem as detractors of the rule of capture might suggest. The benefits of allowing development of the resource and providing a clear rule of decision for conflicts may outweigh any harm that is actually occurring. If not, formation of a local GCD is the solution.

Harm to Surface Watercourses and Surface Water Rights

Except in instances such as the Edwards Aquifer in which the legislature has specifically recognized the importance of springflow, declared preservation of springflow as a goal, or possibly instances in which the federal Endangered Species Act comes into play, the private property owner's right to utilize his property under the rule of capture is not limited by potential impact on surface water flows. This effectively gives the right to use a private resource preference over the public resource.

In the authors' view, it would be a mistake to change the established law in this regard on a broad basis. Specific instances of serious potential environmental harm can be addressed by specific legislation. The vast majority of GCDs have been created by special legislation. If

necessary in the opinion of the legislature, the enabling legislation of specific districts can be amended to include such authority. It is also possible that a GCD faced with specific natural resource issues might address those issues through its management plan.⁸⁰

Review of GCD Rules and Actions

As discussed above, rules and permitting decisions of GCDs often give rise to questions regarding both the district's legal authority to take the proposed regulatory action and the technical basis for the action. In the authors' view, this is an issue that should be addressed and can be addressed in a fashion that will remedy other shortcomings of Chapter 36.

Under the current statute, a person affected by and dissatisfied with any rule or order made by a district is entitled to file suit against the district or its directors to challenge the validity of that law, rule, or order, once all administrative appeals to the district are final.⁸¹ The burden of proof is on the petitioner, and the challenged law, rule, order, or act shall be deemed prima facie valid. The court is to review the GCD's action under the "substantial evidence" rule as defined in the Texas Administrative Procedure Act.⁸² This standard of judicial review requires that a formal contested case hearing be conducted by the GCD in order to develop a complete administrative record upon which the district court will base its review.⁸³ It also means that the factual basis for the GCD's decision will be upheld if more than a "scintilla" of evidence exists in the record to support it.⁸⁴

This standard of judicial review can be problematic on multiple grounds: (a) compiling a complete administrative record can be extremely burdensome and costly, something many districts are ill equipped to accomplish; (b) lack of express statutory authority to issue subpoenas and compel discovery could lead to due process challenges to the standard of review (because a party may be unable to develop the evidence required to present his case); (c) many GCDs have not yet developed the technical expertise or technical information that is required for the decisions they are making; and (d) locally elected, part-time directors can be susceptible to making their decisions on a political basis rather than a legal or technical basis.

These shortcomings could be remedied, and the technical expertise supplied, by providing that GCD decisions are subject to review by the TCEQ, through a contested case hearing process, prior to appealing to the courts. This would enable GCDs to make decisions informally and economically while ensuring the availability of an objective technical review in cases that merit the time and expense.

Oversight of Groundwater Management Plans

As discussed in the section Water Management and Planning, GCDs are statutorily required to develop a comprehensive management plan, which plans are to be considered in the regional water planning process. While districts' groundwater management plans are ultimately submitted to TWDB for certification, TWDB has only the power to review and certify a plan for administrative completeness, not for the substance or technical integrity of the plan.⁸⁵ Although TCEQ has certain mandatory statutory powers over a GCD that fails to submit or receive certification of a plan or amendment,⁸⁶ the current system lacks any substantive state-level review or coordination of groundwater management plans. The lack of substantive review of

management plans is particularly important because the plans are the basis for GCD rules and permitting decisions.

Expansion of TWDB authority to substantively review GCD management plans, to ensure the consistency of plans addressing different portions of the same aquifer, and to ensure the consistency of GCD management plans with regional water plans would be desirable for all stakeholders.

Conclusion

In the authors' view, the rule of capture in combination with regulation by local option groundwater conservation districts has proven to be an effective means of developing and managing Texas' groundwater resources. As a practical matter, the days of operating under an unrestricted rule of capture in Texas are past. The vast majority of production occurs from resources that are included within GCDs where the rule of capture is significantly limited by district rules and permitting requirements. Replacement of the rule of capture with an alternative doctrine is not necessary,⁸⁷ but refinement – and some supervision – of regulation by the groundwater conservation districts would be beneficial. Moving forward into the twenty-first century, Texas, its landowners, and other stakeholders in groundwater protection and management will be best served by the hybrid of common law and local regulation that has evolved in Texas since the decision in *East*.

Endnotes

1. See *Sipriano v. Great Spring Waters of America, Inc.*, 1 S.W.3d 75, 77, 79-80 (Tex.1999); *Friendswood Dev. Co. v. Smith-Southwest Indus., Inc.*, 576 S.W.2d 21, 24, 30 (Tex. 1978); *id.* at 31 (Pope, J., dissenting); *City of Corpus Christi v. City of Pleasanton*, 154 Tex. 289, 276 S.W.2d 798, 803 (Tex.1955); *Houston & T.C. Ry. Co. v. East*, 98 Tex. 146, 81 S.W. 279, 280-81 (1904).
2. Other issues also include the role of the Edwards Aquifer Authority, historic use standards, water marketing and, more generally, “the role of federal, state, regional and local governments, and their coordination in setting consistent, nondiscriminatory water policies.” See <http://www.senate.state.tx.us/75r/senate/commit/c750/c750.htm>.
3. See, e.g., *City of San Marcos v. TCEQ*, No. 03-02-00724-CV, 2004 WL 35541, at *6 (Tex. App.–Austin Jan. 8, 2004, n.p.h.) (“The rule of capture for use of groundwater no longer exists in any state except Texas”); see also *Sipriano*, 1 S.W.3d at 81-82 (Hecht, J., concurring) (describing Texas as the “one lone holdout” among western states).
4. See, e.g., Eric Opiela, *The Rule of Capture in Texas: An Outdated Principle Beyond its Time*, 6 U. DENV. WATER L. REV. 87, 89 (2002); Ronald Kaiser, Frank Skillern & Bruce Lesikar, *Groundwater Management in Selected Western States: Options for Texas, excerpted in Senate Interim Committee on Natural Resources, Interim Report to the 77th Legislature, Texas Groundwater Resources*, at 51 (Nov. 2000) (“[T]oday Texas is the last major state to adhere to [the English common law rule] in its traditional form.”).
5. See *Wiggins v. Brazil Coal & Clay Corp.*, 452 N.E.2d 958, 964 (Ind. 1983); *City of Valparaiso v. Defler*, 694 N.E.2d 1177, 1180-82 (Ind. Ct. App. 1998); *Adams v. Grigsby*, 152 So.2d 619, 623-24 (La. App. 1963); *Maddocks v. Giles*, 728 A.2d 150 (Me. 1999); see also 3 WATERS AND WATER RIGHTS § 20.07(b) (Robert E. Beck ed., 1991 ed., 2003 replacement vol.); Joseph W. Dellapenna, *The Law of Water Allocation in the Southeastern States at the Opening of the Twenty-First Century*, 25 U. ARK. LITTLE ROCK L. REV. 9, 73-77 (2002).
6. *Maddocks*, 728 A.2d at 153-54 (citing *Friendswood*, 576 S.W.2d at 29, for the significance of landowners’ reliance on the common law rule). The court also noted that such policy considerations were best left to the state legislature. *Id.* at 154.
7. See *Hartford Rayon Corp. v. Cromwell Water Co.*, 10 A.2d 587, 588 (Conn. 1940); *Roath v. Driscoll*, 20 Conn. 533, 541 (1850); *City of Atlanta v. Hudgins*, 19 S.E.2d 508, 516 (Ga. 1942); *Board of Supervisors of Clarke County v. Mississippi Lumber Co.*, 31 So. 905, 906 (Miss. 1902); *Bausch & Lomb, Inc. v. Utica Mutual Ins. Co.*, 625 A.2d 1021, 1034-36 (Md. 1993); see generally 3 WATERS AND WATER RIGHTS § 23.02 (Robert E. Beck ed., 1991 ed., 2003 replacement vol.).
8. See *Wood v. Picillo*, 443 A.2d 1244 (R.I. 1982); *Rose v. Socony-Vacuum Corp.*, 173 A. 627, 630 (R.I. 1934); *Preferred Mutual Ins. Co. v. Gordon*, No. 02-3147, 2003 WL 21077026 at *13 (Mass. Super. May 13, 2003); *Gamer v. Town of Milton*, 195 N.E.2d 65, 67 (Mass. 1964); see generally 3 WATERS AND WATER RIGHTS § 20.07 (Robert E. Beck ed., 1991 ed., 2003 replacement vol.).
9. *East*, 81 S.W. at 280-81.
10. TEX. WATER CODE ANN. § 36.001(5) (Vernon Supp. 2004). Artesian water is groundwater confined under pressure by an impermeable geologic layer, capable of flowing “above the first impervious stratum below the surface of the ground” when properly cased in a well. See *id.* § 11.201 (Vernon 2000). Texas courts have applied the principles applicable to percolating water to artesian water. The only significant distinction between artesian groundwater and other groundwater is the existence of statutory provisions prohibiting the waste of artesian water and requiring TCEQ approval in certain circumstances for withdrawal. *Id.* §§ 11.202, 11.205. Additional restrictions are provided by §§ 11.202(d) and (e) for large artesian wells in sole source aquifers (e.g., for catfish farms).

11. *See id.* § 11.021 (defining state water); *id.* § 11.121 (permit requirement); 30 TEX. ADMIN. CODE § 297.1(55) (West 2003) (TCEQ definition of “underflow”).
12. *See Denis v. Kickapoo Land Co.*, 771 S.W.2d 235 (Tex. App.–Austin 1989, writ denied). In *Denis*, downstream landowners sought declarations that upstream landowners did not have any authority to appropriate waters adjacent to Kickapoo Springs for irrigation purposes. The court of appeals held that absent proof that the subterranean watercourse possessed all the characteristics of a surface watercourse, the presumption of percolating groundwater is not rebutted. *Id.* at 238.
13. *Texas Co. v. Burkett*, 117 Tex. 16, 296 S.W. 273, 278 (1927).
14. *See, e.g., Sipriano*, 1 S.W.3d at 75 (“For over ninety years, this Court has adhered to the common-law rule of capture in allocating the respective rights and liabilities of neighboring landowners for use of groundwater flowing beneath their property.”); *Barshop v. Medina County Underground Water Conservation Dist.*, 925 S.W.2d 618, 625 (Tex. 1996) (“In *East*, we adopted the common law rule that the right to withdraw underground percolating water is not correlative, but is ‘absolute.’”).
15. *See* HENRY PHILIP FARNHAM, 3 THE LAW OF WATERS AND WATER RIGHTS § 937 (1904) (note that this treatise was published contemporaneously with the *East* decision).
16. Corwin W. Johnson, *The Continuing Voids in Texas Groundwater Law: Are Concepts and Terminology to Blame?*, 17 ST. MARY’S L.J. 1281, 1288 (1986).
17. 98 Tex. 146, 81 S.W. 279 (1904).
18. 12 M. & W. 324, 152 Eng. Rep. 1223 (Ex. 1843).
19. *Pecos County Water Control & Improvement Dist. No. 1 v. Williams*, 271 S.W.2d 503 (Tex. Civ. App.–El Paso 1954, writ ref’d n.r.e.).
20. *Id.* at 505-06.
21. *Burkett*, 296 S.W. at 278.
22. 154 Tex. 289, 276 S.W.2d 798 (Tex. 1955).
23. *Id.* at 801.
24. *Friendswood*, 576 S.W.2d at 30.
25. *Barshop v. Medina County Underground Water Conservation Dist.*, 925 S.W.2d 618 (Tex. 1996).
26. *See* Act of May 30, 1993, 73rd Leg., R.S., ch. 626, §§ 1.08, 1.14, 1993 Tex. Gen. Laws 2350, 2356, 2360, amended by Act of May 29, 1995, 74th Leg., R.S., ch. 261, 1995 Tex. Gen. Laws 2505. Since the *Barshop* decision, the EAA’s statute has been further revised in several notable ways. *See* Act of May 27, 2001, 77th Leg., R.S., ch. 966, §§ 6.01-6.05, 2001 Tex. Gen. Laws 1991 (regarding the Authority’s rulemaking procedures); Act of May 23, 2001, 77th Leg., R.S., ch. 1192, 2001 Tex. Gen. Laws 2696 (amending the classification of water uses, for purposes of the Authority’s fees and regulations).
27. *Barshop*, 925 S.W.2d at 631.
28. *Sipriano v. Great Spring Waters of America, Inc. a/k/a Ozarka*, 1 S.W.3d 75 (Tex.1999).
29. WELLS A. HUTCHINS, 2 WATER RIGHTS LAWS IN THE NINETEEN WESTERN STATES 634 (1974). For a detailed

treatment of the development and current application of the reasonable use doctrine, see generally 3 WATERS AND WATER RIGHTS §§ 22.01-22.07 (Robert E. Beck ed., 1991 ed., 2003 replacement vol.).

30. Act of June 2, 1997, 75th Leg., R.S., ch. 1010, 1997 Tex. Gen. Laws 3610.

31. *Sipriano*, 1 S.W.3d at 80.

32. *See Barshop*, 925 S.W.2d at 625; Tex. S.B. 1041, 78th Leg., R.S. (2003) (bill authored by Senator Averitt, proposing to amend Water Code § 36.002 by clarifying that the surface owner's "property interest in groundwater vests as a property right at the moment of capture").

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

34. *See* Stephanie E. Hayes Lusk, Comment, *Texas Groundwater: Reconciling the Rule of Capture With Environmental and Community Demands*, 30 ST. MARY'S L.J. 305, 345-48 (1998). For a discussion of this argument in the specific context of regulation by the Edwards Aquifer Authority, see 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).

35. *See* TEX. WATER CODE ANN. §§ 11.021-11.023, 11.024-11.026 (Vernon 2000 & Supp. 2004). Conversely, groundwater is owned by the individual landowner and includes both the corpus and the right of use. *See* Act of June 2, 1949, 51st Leg., R.S., ch. 306, 1949 Tex. Gen. Laws 559, 559 (recognizing "individual ownership of underground water").

36. *See, e.g., Schenk v. Ann Arbor*, 163 N.W. 109, 112 (Mich. 1917).

37. *See* FARNHAM, *supra* note 15, § 937.

38. *See Barshop*, 925 S.W.2d at 626; *Friendswood*, 576 S.W.2d at 26, 27; *City of Corpus Christi*, 276 S.W.2d at 802; *Burkett*, 296 S.W. at 278; *East*, 81 S.W. at 279-80.

39. *See* TEX. WATER CODE ANN. § 36.002 (Vernon Supp. 2004); Op. Tex. Att'y Gen. No. JM-827 (1987).

40. TEX. PROP. CODE ANN. § 21.0421(a).

41. *Id.* § 21.0421(c)-(d).

42. In addition to this primary form of groundwater regulation, under certain circumstances a landowner's right to use groundwater, subject to the rule of capture, may also be limited by restrictive covenants or municipal ordinances that prohibit drilling water wells. *See, e.g., Dyegard Land P'ship v. Hoover*, 39 S.W.3d 300 (Tex. App.—Fort Worth 2001, no pet.) (upholding restrictive covenants put in place by a subdivision developer).

43. TEX. WATER CODE ANN. § 36.0015.

44. Effective September 1, 2002, the Texas Natural Resources Conservation Commission has been renamed the Texas Commission on Environmental Quality (TCEQ). Act of June 15, 2001, 77th Leg., R.S., ch. 965, § 18.01(c), 2001 Tex. Gen. Laws 1985.

45. Act of May 27, 2001, 77th Leg., R.S., ch. 966, 2001 Tex. Gen. Laws 1991.

46. *See* TEX. WATER CODE ANN. § 36.013 *et seq.*

47. *Id.* § 36.101. Another recent development regarding groundwater districts' rulemaking powers is the Texas Supreme Court's opinion in *Bragg v. Edwards Aquifer Authority*, 71 S.W.3d 729 (Tex. 2002). In that case, the Court

held that the Authority's adoption of well permitting rules was an exercise of its statutory authority to prevent waste and protect the rights of owners of an interest in groundwater. As a result, the requirement of the Private Real Property Rights Preservation Act, Texas Government Code Chapter 2007, for a takings impact assessment did not apply to the Authority in this context. *Id.* at 735-37.

48. Exempt wells are primarily small wells, usually of a domestic and livestock character, but may also include oil and gas and related wells. TEX. WATER CODE ANN. § 36.117.

49. *South Plains Lamesa R.R. v. High Plains Underground Water Conservation Dist. No. 1*, 52 S.W.3d 770 (Tex. App.—Amarillo 2001, no pet.).

50. *Id.* at 779-80.

51. *Id.* at 780.

52. TEX. WATER CODE ANN. §§ 36.101, 36.116(a).

53. *Id.* § 36.116(b). A district may also impose more restrictive permit conditions on new permit applications and increased use by historic users if those limitations apply to all such subsequent applications, regardless of type or location of use, bear a reasonable relationship to the district's existing management plan, and are reasonably necessary to protect existing use. *See id.* § 36.113(e).

54. *Id.* § 36.116(c).

55. *Id.* § 36.116(d).

56. *Id.* § 36.116(e).

57. *Id.* § 36.122(b)-(c); *but see id.* § 36.113(e), which qualifies this prohibition of discrimination against transporters; *see also id.* § 36.122(q) (requiring districts to be fair, impartial, and nondiscriminatory in applying § 36.122).

58. *Id.* § 36.122(e).

59. *Id.* § 36.122(f).

60. *Id.* §§ 36.122(h)-(k).

61. *Id.* §§ 36.122(o), 36.122(g).

62. *Id.* § 36.1071(a).

63. *Id.* §§ 36.1071(e)-(f).

64. *Id.* § 36.1071(h).

65. *Id.* § 36.1071(b).

66. *See* http://www.twdb.state.tx.us/mapping/maps/pdf/gcd_only_8x11.pdf.

67. Organizational Meeting of the Senate Select Committee on Water Policy, 78th Leg., interim session (Jan. 14, 2004) (testimony of Kevin Ward, Executive Administrator, TWDB).

68. *See* Bill E. Couch, Turner Collie & Braden, *Groundwater Management in Texas: Spacing, Production &*

Transfer, Texas Water Law Institute, Texas Water Law 2003, Sept. 11, 2003 (copy on file with the authors).

69. The questionnaire was sent to all districts (69) for which an electronic mail address could be found.

70. TEX. WATER CODE ANN. § 36.002.

71. *South Plains Lamesa R.R.*, 52 S.W.3d at 779 (“a district ‘can exercise no authority that has not been *clearly* granted by the Legislature’”) (quoting *Tri-City Fresh Water Supply Dist. No. 2 v. Mann*, 135 Tex. 280, 142 S.W.2d 945, 948 (1940)).

72. *Id.* at 779-80.

73. Since the drafting of this paper, PGCD has modified its proposed rules and posted them for further public comment.

74. *Barshop*, 925 S.W.2d at 629.

75. *Id.* at 631.

76. 94 S.W.2d 1197 (Tex. Civ. App.—Austin 1936, writ ref’d).

77. *Id.* at 1197-98.

78. See Robert Elder Jr., *Bill might make groundwater export easier: Legislator’s move raises issues of local control and landowners’ rights*, AUSTIN AMERICAN-STATESMAN, Apr. 3, 2003.

79. See Mary Alice Robbins, *Water Fight Backdrop for Suit Against Firm*, TEXAS LAWYER, Feb. 2, 2004; Robert Elder Jr., *The battle for West Texas water: Landowners fight one another, outside investors for liquid gold*, AUSTIN AMERICAN-STATESMAN, Aug. 24, 2003.

80. TEX. WATER CODE ANN. § 36.1071(a)(5).

81. See *id.* § 36.251 (Vernon 2000).

82. *Id.* § 36.253 (invoking TEX. GOV’T CODE § 2001.174).

83. At least one special law district, the Edwards Aquifer Authority, is required to adopt rules for contested case hearings on permit applications consistent with the procedures set out in Chapter 2001 of the Government Code. See Act of May 30, 1993, 73rd Leg., R.S., ch. 626, § 1.15, 1993 Tex. Gen. Laws 2350; *as amended by* Act of May 28, 2001, 77th Leg., R.S., ch. 966, § 6.02, 2001 Tex. Gen. Laws 1880, 1961.

84. See, e.g., *Texas Health Enterprises, Inc. v. Texas Dep’t Health*, 954 S.W.2d 168, 171-72 (Tex. App.—Austin 1997, no pet.); *cf. Coalition for Long Point Preservation v. TCEQ*, 106 S.W.3d 363, 374 (Tex. App.—Austin 2003, pet. denied).

85. See TEX. WATER CODE ANN. §§ 36.1072(b), 36.1072(f) (Vernon Supp. 2004). Once this determination has been made, the executive administrator may request additional information from the district, if necessary to clarify, modify, or supplement previously submitted material, but such a request does not render the management plan incomplete. *Id.* § 36.1072(c).

86. See *id.* §§ 36.301, 36.303 (Vernon 2000).

87. Various commentators critical of the rule of capture in Texas have proposed abrogation of the rule of capture by adoption of one of the alternative doctrines of groundwater ownership and use. See Dylan O. Drummond, Comment,

Texas Groundwater Law in the Twenty-First Century: A Compendium of Historical Approaches, Current Problems, and Future Solutions Focusing on the High Plains Aquifer and the Panhandle, 4 TEX. TECH. J. TEX. ADMIN. L. 173, 224 (2003) (proposing correlative rights); Opiela, *supra* note 4, at 113-15 (proposing reasonable use); Lana Shannon Shadwick, Note, *Obsolescence, Environmental Endangerment and Possible Federal Intervention Compel Reformation of Texas Groundwater Law*, 32 S. TEX. L. REV. 641, 692-703 (1991) (proposing prior appropriation); *see also* Hayes Lusk, *supra* note 34, at 360-64 (recommending that Texas abrogate the rule of capture by legislation vesting ownership of groundwater in the State).

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Chapter 5

Groundwater is No Longer Secret and Occult – A Historical and Hydrogeologic Analysis of the East case

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Introduction

In 1901, Denison, Texas was a bustling railroad town that served as a retail and shipping center for North Texas and a stopping point for more than 10 railways crossing and intersecting Texas¹ (Figure 1). Twenty-nine years earlier, the Missouri, Kansas and Texas Railroad, affectionately referred to as the K-T or KATY, laid out the town and named it after its vice president, Mr. George Denison.² The town quickly grew from 3,000 residents in 1873 to more than 10,000 in 1900.³

Running a railroad required water: water for passengers at the station, water for maintaining machine shops, and water for the steam boilers that propelled the locomotives down the tracks. In July of 1901, the Houston and Texas Central Railroad Company sent some of its staff to Denison in search for water for its facilities.^{4,5} They started their search near Owings Street and Lamar Avenue and investigated wells that had already been dug in the nearby neighborhood, including a well on property owned by Mr. W. A. East.⁶ These household wells were about 5 feet in diameter and 33 ft deep. The railroad men, apparently satisfied with the groundwater-producing abilities in the area, dug a well near the intersection of Owings Street and Lamar Avenue that was 20 ft in diameter and 66 feet deep. Once the well was completed in August of 1901, the railroad installed a steam pump and began producing 25,000 gallons a day.

Sometime after the railroad started pumping its well,⁷ wells in the nearby neighborhood started to go dry. This resulted in Mr. East and several of his neighbors⁸ filing suit against the railroad, claiming that production from the railroad's well dried up their wells. Mr. East claimed to be damaged in the sum of \$1,100 (about \$23,000 in 2002 dollars) plus court costs. In December of 1902, the District Court of Grayson County ruled against Mr. East and his neighbors and stated in its conclusion of law that "...no cause of action is shown in behalf of plaintiffs in any sum whatsoever, because I do not believe that any correlative rights exist between the parties as to underground, percolating waters, which do not run in any defined channel." Mr. East then filed for a new trial, claiming that the court erred because "...said finding was contrary to the law and contrary to the



Figure 1: Map showing Denison as a railroad center in northern Texas (from Maguire, 1991).

evidence.” The court denied Mr. East’s motion for a new trial. Mr. East then filed for appeal, claiming that the court erred in its conclusion of law that the railroad was not liable, erred in overruling the motion for a new trial, and erred in failing to render judgement for the plaintiff.

The Court of Civil Appeals over-ruled the District Court and ruled in favor of Mr. East, awarding him \$206.25 (about \$4,300 in 2002 dollars). The Court of Civil Appeals found that “...the use to which defendant puts its well was not a reasonable use of their property as land, but was an artificial use of their property, and if the doctrine of reasonable use, as applicable to defined

streams to such cases, this was unreasonable.” However, the railroad appealed that decision and the Texas Supreme Court ruled against Mr. East and in favor of the railroad.⁹

In its decision on June 13, 1904, the Texas Supreme Court laid the foundation of Texas groundwater law: the rule of capture. The Texas Supreme Court ruling quotes English doctrine that states: “That the person who owns the surface may dig therein, and apply all that is there found to his own purposes at his free will and pleasure; and that if, in the exercise of such right, he intercepts or drains off the water collected from the underground springs in his neighbor’s well, this inconvenience to his neighbor falls within the description *damnum absque injuria*[¹⁰], which cannot become the ground of an action.” The Texas Supreme Court made its decision on two public policy rationales, quoting a decision made by the Ohio Supreme Court in 1861 in the case of *Frazier vs. Brown*:

“In the absence of express contract and a positive authorized legislation, as between proprietors of adjoining land, the law recognizes no correlative rights[¹¹] in respect to underground waters percolating, oozing, or filtrating through the earth; and this mainly from considerations of public policy: (1) Because the existence, origin, movement, and course of such waters, and the causes which govern and direct their movements, are so secret, occult, and concealed that an attempt to administer any set of legal rules in respect to them would be involved in hopeless uncertainty, and would, therefore, be practically impossible. (2) Because any such recognition of correlative rights would interfere, to the material detriment of the commonwealth, with drainage and agriculture, mining, the construction of highways and railroads, with sanitary regulations, building, and the general progress of improvement in works of embellishment and utility.”

Many modern hydrogeologists would agree that the existence, origin, movement, and course of groundwater are no longer “...secret, occult, and concealed...” and would therefore disagree with with item (1) above. That is not to say that hydrogeologists know everything and can predict with absolute certainty how an aquifer will respond to pumping, but the science of hydrogeology has widely accepted theories and concepts that describe the existence, origin, movement, and course of groundwater. Item (2), however, is more directly a policy issue rather than a scientific issue.

The 1904 Texas Supreme Court ruling is only part of the story of water law in Texas. Probably the most important event after the 1904 ruling was the approval by voters in 1917 of a conservation amendment to the State constitution proposed by the Legislature that placed the duty to preserve Texas’ natural resources on the State.¹² This amendment forms the basis and duty for legislative action on groundwater regulation. In 1949, the Legislature used the conservation amendment to pass the Texas Underground Water Conservation Act and allow for the creation of groundwater conservation districts. These districts can adopt rules to conserve, preserve, protect, recharge, and prevent waste of groundwater. At present, there are 80 confirmed groundwater conservation districts that contain within their borders about 88 percent of all the groundwater produced in Texas¹³. Since the 1917 conservation amendment to the Texas constitution, the Texas Supreme Court has recognized that the responsibility for the regulation of groundwater rests in the hands of the Legislature.¹⁴ By 1955, the Texas Supreme Court had recognized that the movement of groundwater was no longer secret and occult.¹⁵

The 1904 Texas Supreme Court ruling still offers several interesting scientific issues for investigation and discussion. One issue is the level of understanding of hydrogeology at the time of the Ohio Supreme Court decision in 1861 and the Texas Supreme Court decision in 1904. What was known about hydrogeology at those times? Was groundwater, indeed, secret and occult in 1861 and 1904? Another issue is the hydrogeologic details of the East case itself. Is it reasonable, given what is known, that production of the railroad well may have drained Mr. East's well? Finally, another issue is the progress of the science of hydrogeology since 1904. Is enough known now to refute that groundwater is secret and occult? The purpose of this paper is to briefly investigate and discuss these three issues.

A Brief History of Hydrogeology¹⁶

Based on our review, there have been three major theories of groundwater through the years: the Oceanus theory, the condensation theory, and the percolation theory. Ultimately, it was the percolation theory that withstood the test of time. As Darcy wrote in 1856, "no one would not reply that they [springs] result from the infiltration [percolation] of rain water." However, the resilience and proponents of the other theories make fascinating history.

The Oceanus Theory

The history of hydrogeology begins with the Greek storyteller Homer (~1,000 B.C.) in Book 21 of his Iliad. In this book, Homer writes of "...the deep-flowing Oceanus, from which flow all rivers and every sea and all springs and deep wells." In this theory, which we call the Oceanus theory, water flows from the oceans; into the continents; and to rivers, springs, and wells.

The Oceanus theory had adherents for more than 2,500 years. The Greek philosopher Thales (624–547 B.C.) supported the Oceanus theory. The Roman natural historian and scientist Pliny the Elder (23-79 A.D.) adhered to the Oceanus theory in Chapter LXV, Book 2 of his encyclopedia Natural History, a document that influentially survived through the Middle Ages (350-1450 A.D.). During the Middle Ages, philosophers and interpreters of the Bible taught that springs originated from the oceans. The Italian painter (and scientist) Leonardo Da Vinci (1452-1519 A.D.) adhered to the Oceanus theory and believed that rivers were sourced from underground veins of water from the sea. Several other documents appeared in the 1500s promoting the Oceanus theory of groundwater. In the 1600s, the Oceanus theory had an offshoot theory that held that the Earth was living or behaved like an animal. The German astronomer Johann Kepler (1571-1630 A.D.) thought the Earth imbibed water from the ocean, digested it, and then expelled it through springs. After more than 2,500 years, the Oceanus theory began to fade when the percolation theory took hold in the late 1600s.

The Condensation Theory

In his book *Meteorologica*, the Greek philosopher Aristotle (384-322 B.C.) introduced the condensation theory by stating that "...the air surrounding the earth is turned into water by the cold of the heavens and falls as rain . . . [and]...the air which penetrates and passes the crust of the earth also becomes transformed into water owing to the cold which it encounters there. The

water coming from the earth unites with rain water to produce rivers. The rainfall alone is quite insufficient to supply the rivers of the world with water.”¹⁷ This theory states that the source of groundwater is air moving into the ground and condensing the water it holds.

The Roman philosopher Seneca (4 B.C. - 65 A.D.) did not believe that rainfall could supply the water in rivers and thought that groundwater could come from three possible sources: (a) the Earth itself containing a lot of moisture that is continually being forced out, (b) air within the Earth is continually being converted into water by the forces of darkness and cold (the condensation theory), and (c) the Earth is simply being converted to water.

The French philosopher and scientist René Descartes (1596-1650 A.D.) revived the condensation theory in the 1600s. He thought that ocean water moved into the earth by underground channels where it was vaporized by the heat of the Earth's interior. This vaporized water then rose through caverns, condensed at a higher level, and flowed out of springs. The condensation theory began to fade when the percolation theory took hold in the late 1600s.

The Percolation Theory

The Roman architect and engineer Vitruvius (~80-20 B.C.) discussed what we call the percolation theory in the eighth volume, *Liber Octavus de Aquis et Aquaeductibus* (Eighth Book on Water and Aqueducts), of his treatise *De Architectura Libri Decem* (Ten Books on Architecture). In this volume, Vitruvius discussed the sources and distribution of water and noted that rain and snow fell on the mountains, percolated through the rock strata at the foot of the mountains, and issued forth as streams and springs. Being the first to describe a simple conceptual model of the groundwater component of the hydrologic cycle, Vitruvius set the foundation for modern hydrogeology.¹⁸

The French potter (and scientist) Bernard Palissy (1509-1590 A.D.) focused on the percolation theory in his book, *Discourse Admirables* (Admirable Discourse), published in 1580 A.D.. In the book, he states: “...rain water that falls in the winter goes up in summer, to come again in winter. . . And when the winds push these vapors the waters fall on all parts of the land, and when it pleases God that these clouds (which are nothing more than a mass of water) should dissolve, these vapors are turned into rain that falls on the ground....And these waters, falling on these mountains through the ground and cracks, always descend and do not stop until they find some region blocked by stones or rock very close set and condensed. And they rest on such a bottom and having found some channel or other opening, they flow out as fountains or brooks or rivers according to the size of the opening and receptacles...” Palissy’s thoughts are similar to those of Vitruvius except that he introduces the concept of an underlying confining layer.

Prior to the latter 1600s, scientists and philosophers assumed that water discharged from springs could not be derived from rainfall because it was thought that there wasn't enough rainfall and that the Earth was too impervious to allow deep infiltration of water. This was, in part, the foundation upon which the Oceanus and Condensation theories rested. However, a number of findings in the late 1600s caused people to question these assumptions. The French scientist Pierre Perrault (1608-1680 A.D.) measured rainfall and observed that the rainfall over a basin was about six times the stream discharge, discrediting a theory that rainfall couldn't possibly account for spring and streamflow. The English astronomer Edmund Halley (1656-1742 A.D.)

made evaporation estimates and calculated that evaporation from the sea would be sufficient to account for all of the water discharged by streams and springs.

The French physicist Edmé Mariotté (1620-1684 A.D.) successfully defended the percolation theory and formed the foundation of modern thought on groundwater. Mariotté discussed how water from rain and snow infiltrates the pores of the Earth and accumulates in wells. He discussed how water percolates down until it hits an impervious layer and then flows laterally in an amount that could supply a spring. He showed that spring flow increased and decreased dependant on rainfall and explained that more constant springs were supplied by larger reservoirs. He used the leaky roof of the cellar of the Paris Observatory to demonstrate that water could percolate through the earth. He also measured this percolation and compared it with rainfall, probably the world's first recharge estimate.

The Beginning of Well Hydraulics

In the beginning of the 1800s, the French took a great interest in groundwater because of the drilling of a number of artesian wells in France. It was during this time that the French engineer Henri Darcy (1803-1858) published his book 'Les Fontaines Publiques de la Ville de Dijon' (Public Foundations of the City of Dijon) in 1856 with an appendix that contained what is now known as Darcy's Law. Just seven years later in 1863, A. J. E. Dupuit (1804-1866) used Darcy's Law to derive an equation that described the flow of water to a well under equilibrium conditions. In 1870 the German scientist Adolph Thiem modified Dupuit's formula so that one could calculate the hydraulic properties of an aquifer by pumping a well and observing the resulting decline in the water table in nearby wells under equilibrium conditions. It wasn't until 1935 that C. V. Theis (1900-1987) developed the non-equilibrium equation and solution for flow to a well.

Early hydrogeology in the United States

There were few hydrogeologic studies in the United States until the 1870s when considerable interest arose in locating artesian water. Several publications documented surveys for artesian prospects across the country, including Texas. A University of Wisconsin professor and United States Geologic Survey (USGS) geologist Thomas Chamberlin (1843-1928 A.D.) published a seminal report on "The requisite and qualifying conditions of artesian flow" in 1885, the first hydrogeologic report published by the USGS. In 1896, William P. Mason of the Rensselaer Polytechnic Institute published a book called "Water Supply" that included two chapters on groundwater and contamination of groundwater by sanitary waste (Mason, 1896). In 1899, the University of Wisconsin professor and USGS geologist Franklin H. King wrote "Principles and Conditions of the Movements of Ground Water" that included a number of important observations concerning groundwater, including:

- groundwater flows according to gravity;
- the water table can be represented using water-level contour maps;
- flow can be indicated on a water-level contour map by showing arrows at right angles to the water-level contours;

- groundwater flow can be shown on a cross-section moving from upland areas to lowland areas; and
- the water table can be a subdued reflection of the surface topography.

Slichter (1899) conducted an electrolytic tracer test to track the movement and velocity of groundwater underflow in river valleys. In Texas, R. T. Hill (1901) published an assessment of the geography, geology, and artesian waters of the Black and Grand Prairies of Texas. Several other USGS geologists published detailed reports of artesian water from around the country through 1904. The advancement of hydrogeology in the United States since 1904 is described by Rosenshein and others (1976).

Was groundwater secret and occult in 1861 and 1904?

At the time of the Ohio Supreme Court decision in 1861, one could argue that groundwater was indeed 'secret and occult'. Although Darcy's law had been established, it was not until 1863 that it was used to describe groundwater flow to a well and 1870 that it was used to characterize aquifer properties and predict water-level declines. However, by 1904, the science of groundwater had progressed considerably. Dupuit and Thiem had developed the aforementioned equations, which recognized that wells interfered with each other, and King had published his book that included many modern concepts about groundwater flow in 1899.

It's unclear how well the knowledge of hydrogeologic principles traveled across the country. However, it seems safe to assume that USGS geologists working in Texas circa 1904 were well aware of King's 1899 book. The propagation of hydrogeologic science to the general public was probably non-existent. Even today, hydrogeologic discoveries rarely make the front page of the local papers.

2004: Groundwater is no longer secret and occult

Groundwater science has progressed considerably since 1904. Besides the C. V. Theis contribution, there has been a considerable amount of research on aquifers and groundwater flow, including research on the hydrologic cycle, measuring hydrologic characteristics, quantifying heterogeneity and anisotropy, evaluating the chemical evolution of groundwater, developing groundwater resources, evaluating the migration of contaminants, and modeling aquifers. There is a long list of books that summarize the state of modern groundwater science (for example, Freeze and Cherry, 1979; Driscoll, 1986; Domenico and Schwartz, 1998; Fetter, 2001; Fitts, 2002).

In addition to basic research on groundwater and aquifers, there has also been a lot of information collected on aquifers. In Texas, the Texas Water Development Board's water well database includes information on 30,000 wells with 650,000 measures of water levels and 103,000 measures of water quality. Through its efforts and those of its cooperators (groundwater conservation districts and the U.S. Geological Survey), the TWDB now collects and compiles 10,000 measurements of water levels each year and 5,000 measurements of water quality over a five year sampling period in a state-wide water well monitoring network.

The TWDB, USGS, and others have developed numerical groundwater flow models of the state's aquifers to understand flow in the aquifers and to make predictions on how drought and pumping might affect water levels, spring flows, and baseflows (Mace, 2001). Since 2001, the TWDB has been developing and overseeing the development of groundwater availability models of the major and minor aquifers of the state as directed by the Legislature (Mace and Mullican, 2000a, b; 2001; Mullican and Mace, 2003; Mace and others, 2004).

The devil is in the details...

Although most (if not all...) modern hydrogeologists would likely agree that groundwater is no longer secret and occult, the devil is in the details. This is because aquifers are generally complex (heterogeneous and anisotropic). This complexity results in variations in the sands, fractures, dissolution conduits, aquifer thickness, water volumes, and other physical parameters from one place to the next. In extreme cases, such as in fractured and karstic aquifers, one well might produce a large amount of water and another well nearby might produce much less depending on whether or not fractures or dissolution features are crossed by the borehole. Other aquifers, such as sandy formations, may be more uniform, but even these aquifers can have lateral and vertical variations over short distances or be affected by faulting. It may even be difficult to predict the long-term response of an area with site-specific information such as pumping tests if those tests were not run for a long period of time. On a regional scale, it can be difficult to estimate recharge and how it relates to groundwater evapotranspiration. Hydrogeologists can still make predictions in areas with little information, but there are always uncertainties associated with predictions.

A technical analysis of the East case

Because the parties involved in the East case did not have an advanced technical understanding of groundwater flow, we decided to investigate, on a technical level, whether or not it was reasonable or possible that the railroad's well caused Mr. East's well to go dry. To do this, we (1) reviewed court and other historical documents for information on the dimensions and locations of the wells, (2) traveled to Denison to inspect the area where the wells were located, (3) ran a model to assess possible interference between wells, and (4) investigated historical rainfall records to determine if a drought may have also occurred at that time.

The study area

Denison, Texas is located in Grayson County near the border with Oklahoma (Figure 2). Located in the Blackland Prairies physiographic subprovince (Wermund, 1996), the northern part of the county is characterized by loamy and sandy soils while the southern part is characterized by blackland soils. The area receives on average 40 to 44 inches per year of precipitation and has an average annual net lake evaporation of 30 to 34 inches (TWDB, 1997, p. 3-11, -12). The Red River forms the northern boundary of the county, most of which is now submerged by Lake Texoma. The surface-water divide between the Red River and Trinity River basins is located in the lower half of the county.

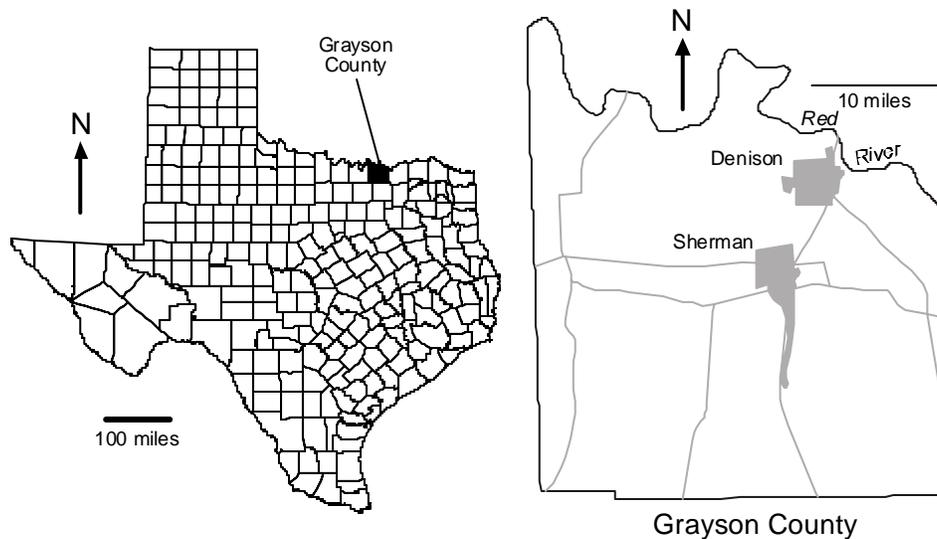


Figure 2: Location of Grayson County in Texas and Denison in Grayson County.

The geometry of the East case

Court documents indicate that the Houston and Texas Central Railroad Company (the Railroad) dug a well near the intersection of Owings Street and Lamar Avenue.¹⁹ An artist's aerial rendition of Denison circa 1886 shows the location of railroad tracks, the location of the Railroad's line, and a number of structures in the area (Figure 3).²⁰ The 1914 Sanborn Fire Insurance map shows a 'large cistern' next to a structure identified as a pump house located near the intersection of Owings Street and Lamar Avenue (Figure 4). This is the likely location of the Railroad well. Court documents indicate that the Railroad well was 20 feet in diameter and 66 feet deep. The well and the pump house no longer exist at the site, although it appears that there are remnants of the pumphouse foundation (Figure 5a).

Court documents indicate that Mr. W. A. East (East) owned "Two lots and one-half on the corner of Lamar Avenue and Morgan Street, Lots 1 and 2 and one-half of 3, Block 2, Cook's second addition to Denison, Grayson County, Texas." However, this description of East's property appears to be incorrect since the intersection of Lamar Avenue and Morgan Street is in Cook's First Addition and lots 1, 2 and 3 of block 2 are not located near the intersection (Figures 4 and 6).²¹ We reviewed deeds at the Grayson County Courthouse and found that East bought lots 5, 6, 7, 8, Block 2, Cook's First Addition to Denison, Texas in September of 1900 "...on the waters of Paw Paw Creek..."²² which passes through the middle of these lots (Figures 4 and 5b). The 1914 Sanborn fire insurance map shows three dwellings on the northern side of lots 5, 6, and 7 (Figure 4). Therefore, we believe that the East well was located somewhere on these properties, which range from 100 to 250 feet away from the railroad well (Figure 6). The East well is described in court documents as being about 5 feet in diameter and 33 feet deep. Neither the East well nor the houses on the lots exist today.²³ The East well is both shallower and of lesser diameter than the Railroad well (Figure 7a).

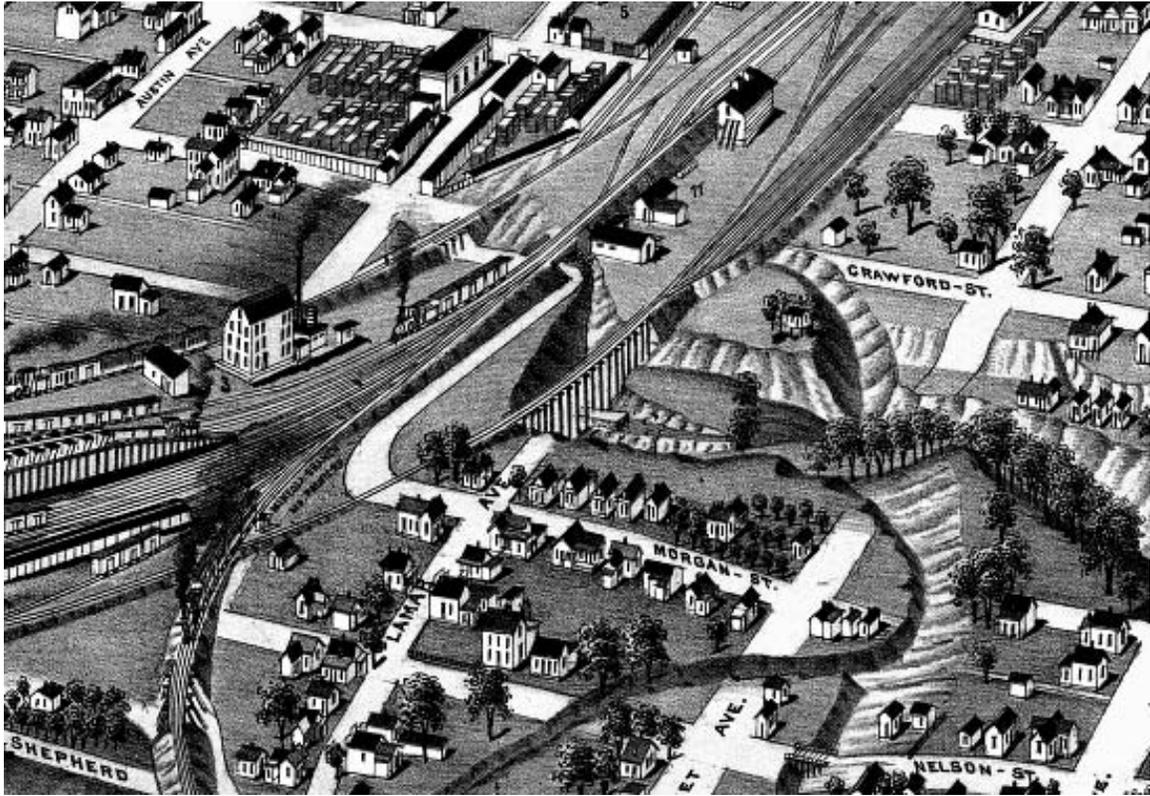


Figure 3: A detail from an artist's rendition of Denison circa 1885 (Beck & Pauli, 1886). Pawpaw Creek is shown in the center of the detail. The Houston and Texas Central Railway line is the railroad that runs over Pawpaw Creek on top of the bridge with trestles. Their station is located near the top right of the figure. Lamar Avenue and Morgan Street are shown in this map. Owings Street is not shown and would be located along the course of Pawpaw Creek North of Morgan Street. The railroad bridge shown on this map was torn down and replaced with a concrete bridge in 1914 (according to the date on the bridge).

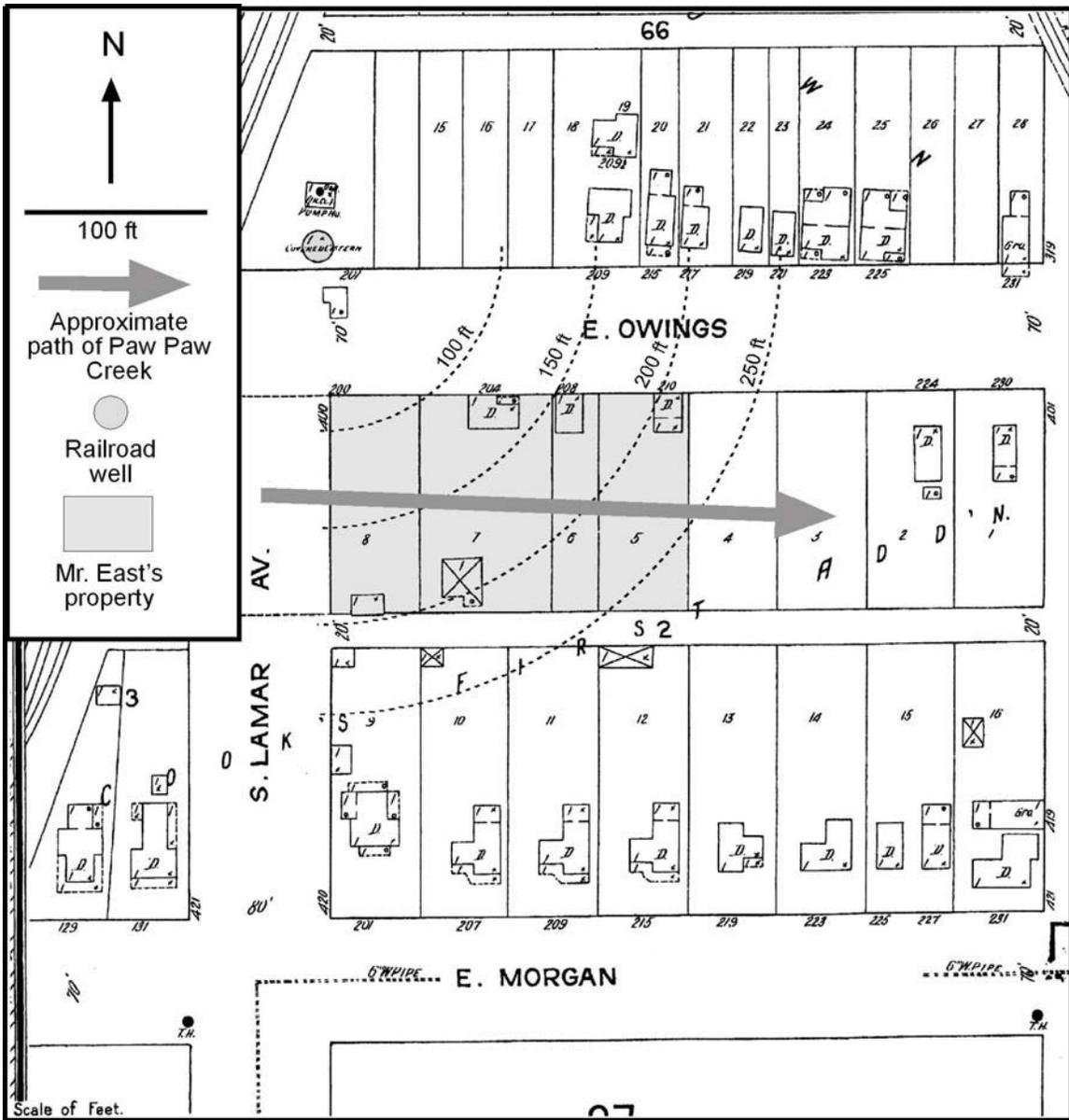
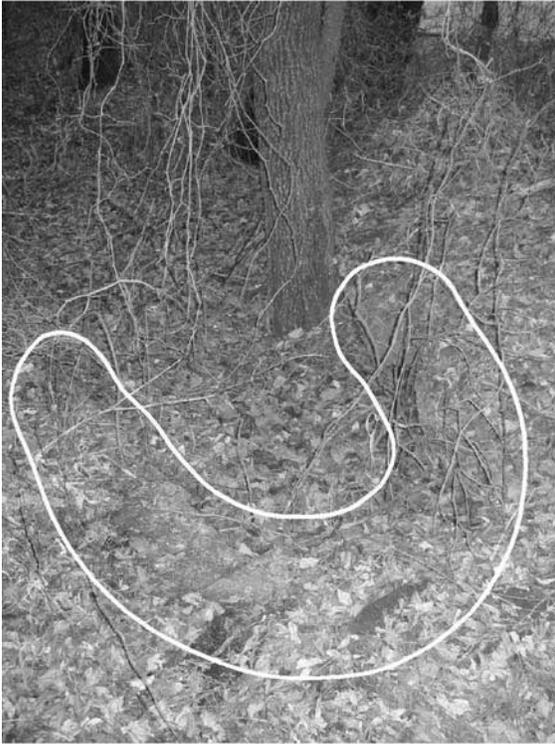


Figure 4: A detail of the 1914 Sanborn fire insurance map of Denison showing the location of the Houston and Texas Central Railroad Company well sunk near the intersection of Owings Street and Lamar Avenue. We have highlighted the location of the well, the properties owned by Mr. East in 1901, the modern approximate location of Paw Paw Creek, and radii of distances from the railroad well.

(a)



(b)



(c)



Figure 5: Photographs taken on January 16, 2004 near Owings Street and Lamar Avenue, including (a) the probable location of the pumphouse for the Railroad well with pieces of foundation cement circled; (b) view to the east while standing on Lamar Avenue, with Pawpaw Creek in the foreground (the creek is channeled beneath Lamar Avenue), Owings Street to the left visible between the trees, and the probable location of the East well between the creek and Owings Street; and (c) looking north at the intersection of Owings Street and Lamar Avenue with the probable location of the Railroad well circled. Photographs by authors.

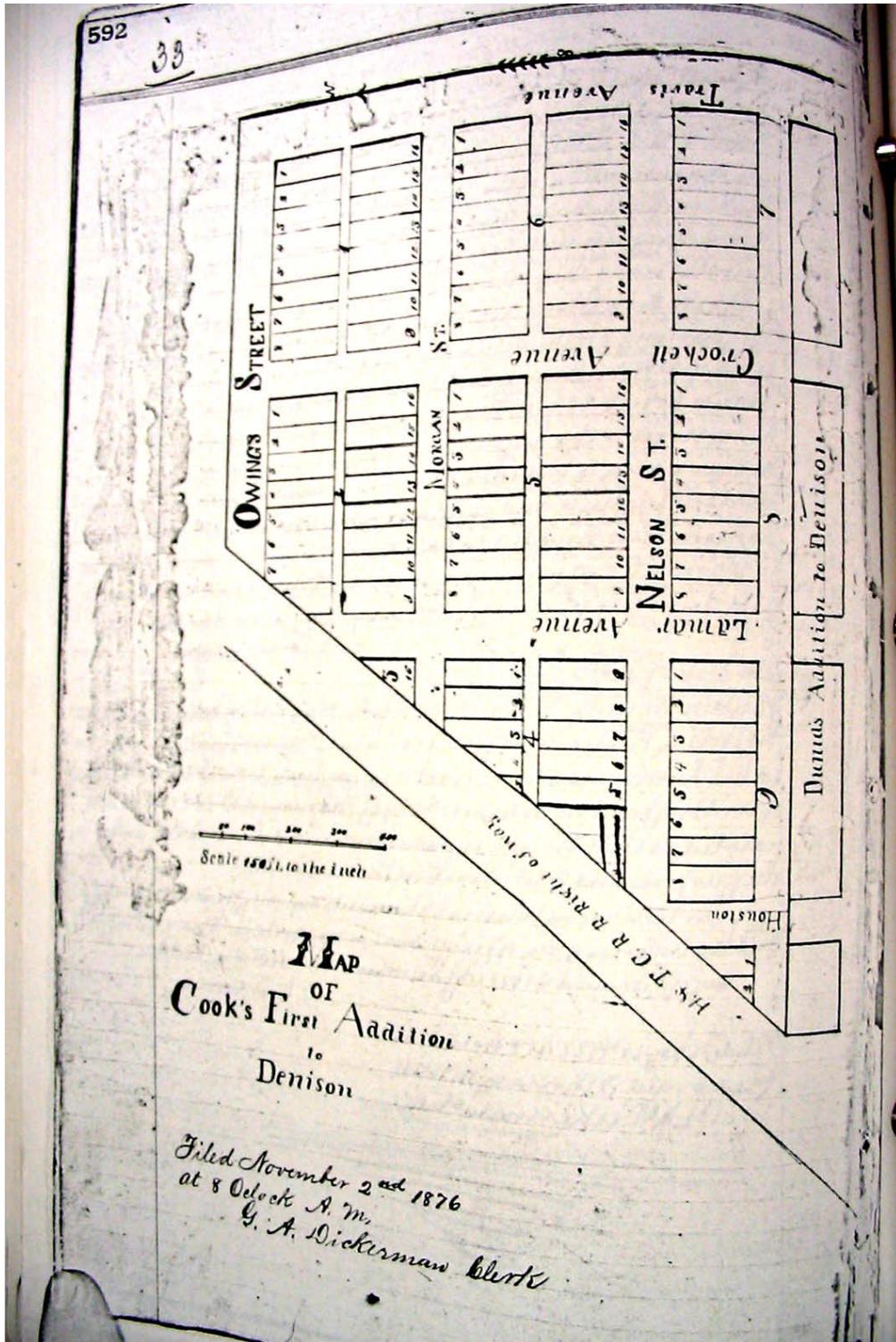


Figure 6: Plat map of Cook's First Addition to Denison as filed in 1876 (from files at the Grayson County Courthouse). Note that north on this map is directed to the left of the page as photographed. Photograph by authors.

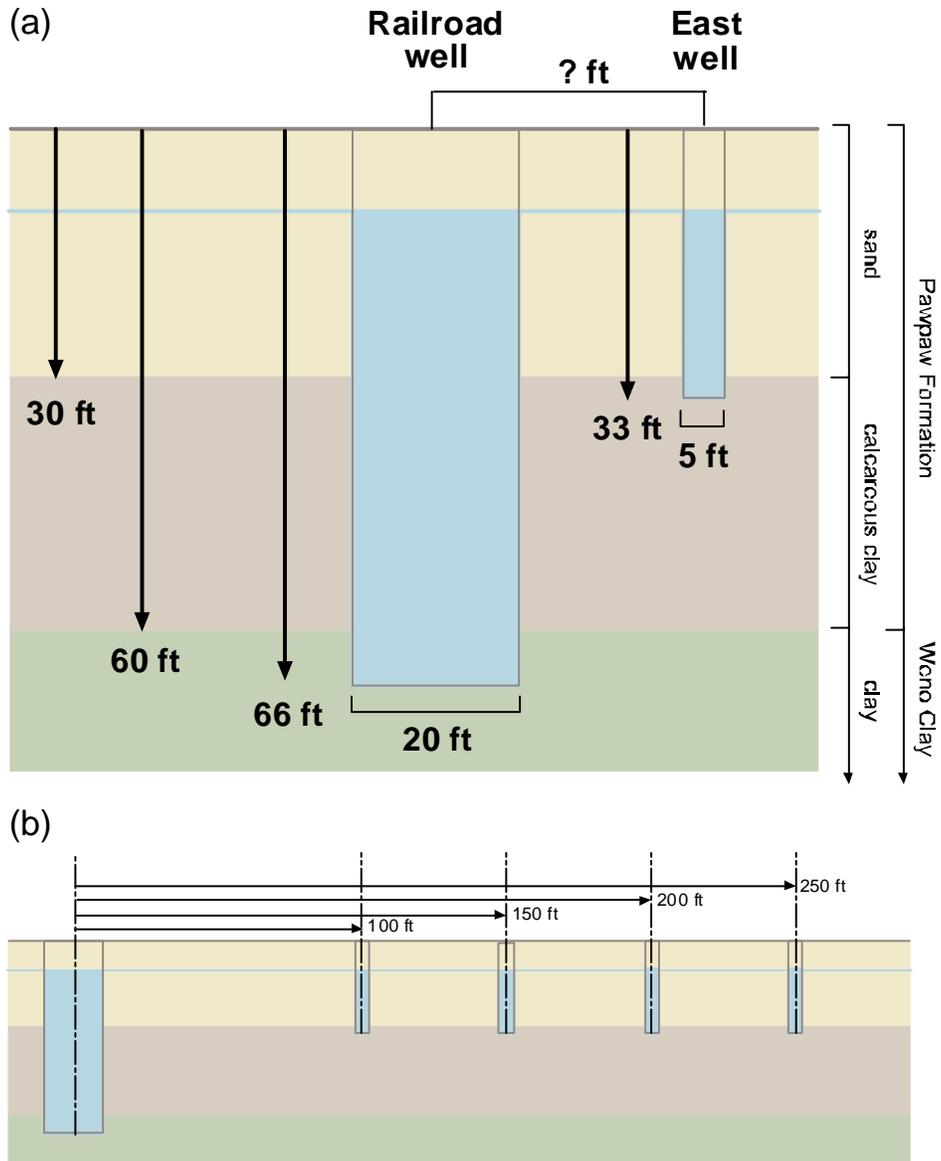


Figure 7: Schematics showing (a) the relative dimensions of the Railroad and East wells and the probable subsurface geology in the area and (b) the same with the East well at likely distances from the Railroad well.

The hydrogeology of the East case

According to the Geologic Atlas of Texas sheet for the area (McGowen and others, 1991), the Railroad and East wells were completed in the Pawpaw Formation (Figure 8). This formation is about 60 feet thick near the outcrop and consists of calcareous clay in the lower part and poorly cemented sand in the upper part which is 20 to 30 feet thick (Baker, 1960). According to Baker (1960), the sand yields small to moderate amounts of water to shallow wells in the outcrop area. Underneath the Pawpaw Formation is the Weno Clay, which is 110 to 135 feet thick of calcareous clay and doesn't produce water (McGowen and others, 1991, refers to the Weno Limestone).²⁴ The Railroad claimed that water percolated into their well at different depths, including through the bottom. Limited well-log information suggests that different sands exist in the Pawpaw Formation, so the Railroad's claim may be accurate.

The locations of the wells are toward the southern part of the outcrop where the thickness of the Pawpaw Formation is greatest. We were not able to locate any aquifer tests for the Pawpaw Formation in the area. However, the sandy part of the formation would be expected to have hydraulic conductivities²⁵ between 2 and 20 ft/day (based on the 25th and 75th percentile of the Carrizo-Wilcox aquifer by Mace and Smyth [2003], a sandstone aquifer in the upper coastal plains of Texas).

In 1873, the first city council of Denton had a public well dug in the center of the intersection of Main Street and Austin Avenue (Maguire, 1991, p. 25), about 1,500 ft to the northwest of the intersection of Owings Street and Lamar Avenue. This well was 38 feet deep and held up to 8 feet of water (Maguire, 1991, p. 25). Therefore, the depth to water was about 30 feet at this location. We expect that the depth to water in the Railroad and East wells to be less, perhaps by 5 to 15 feet, because these wells are located close to a creek bed at a lower elevation.²⁶ We infer that water in the Pawpaw Formation is unconfined (there is no confining layer above the formation) and that the water table would fluctuate with precipitation amount.

Assuming that the full thickness of the Pawpaw Formation is available at the location of the wells, the railroad well fully penetrated the sand and clay in the formation and extended a few feet into the Weno Clay (Figure 7a). Although useable quantities of water are probably only available in the sandy part of the section, there is an advantage in extending a large-diameter well into underlying low-permeability sediments for the storage of water (Mace, 1994; 1998). The East well also would have fully penetrated the

sand in the Pawpaw Formation, but it would have only gone a few feet into the clay in the formation (Figure 7a).

Groundwater flow in the area is probably directed generally toward Pawpaw Creek in a southeasterly direction north of the creek and in a northeasterly direction south of the creek. If this is true, the East well would have been down gradient of the railroad well.

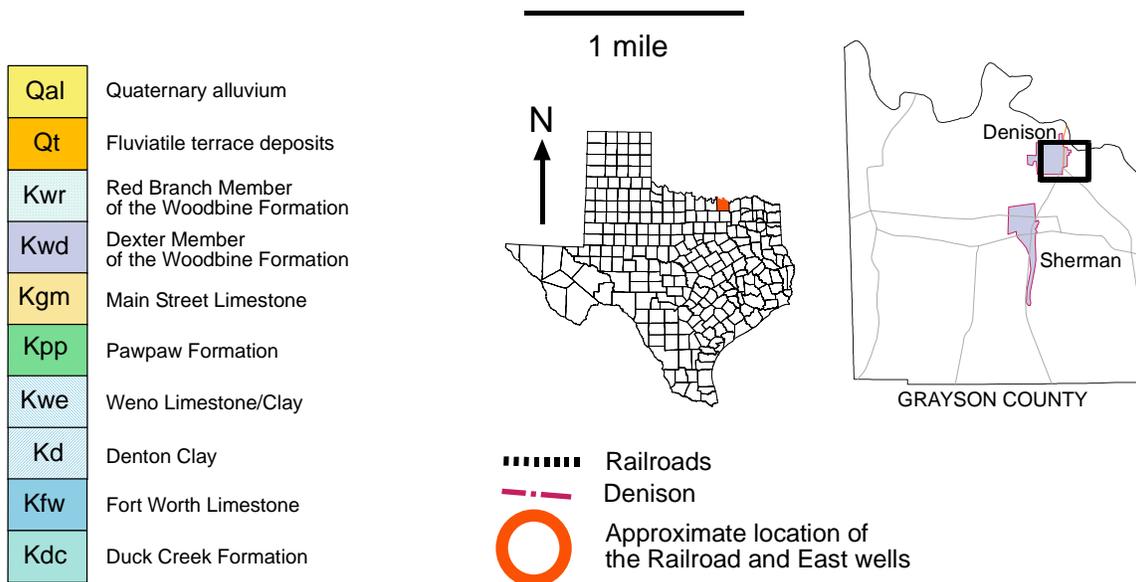
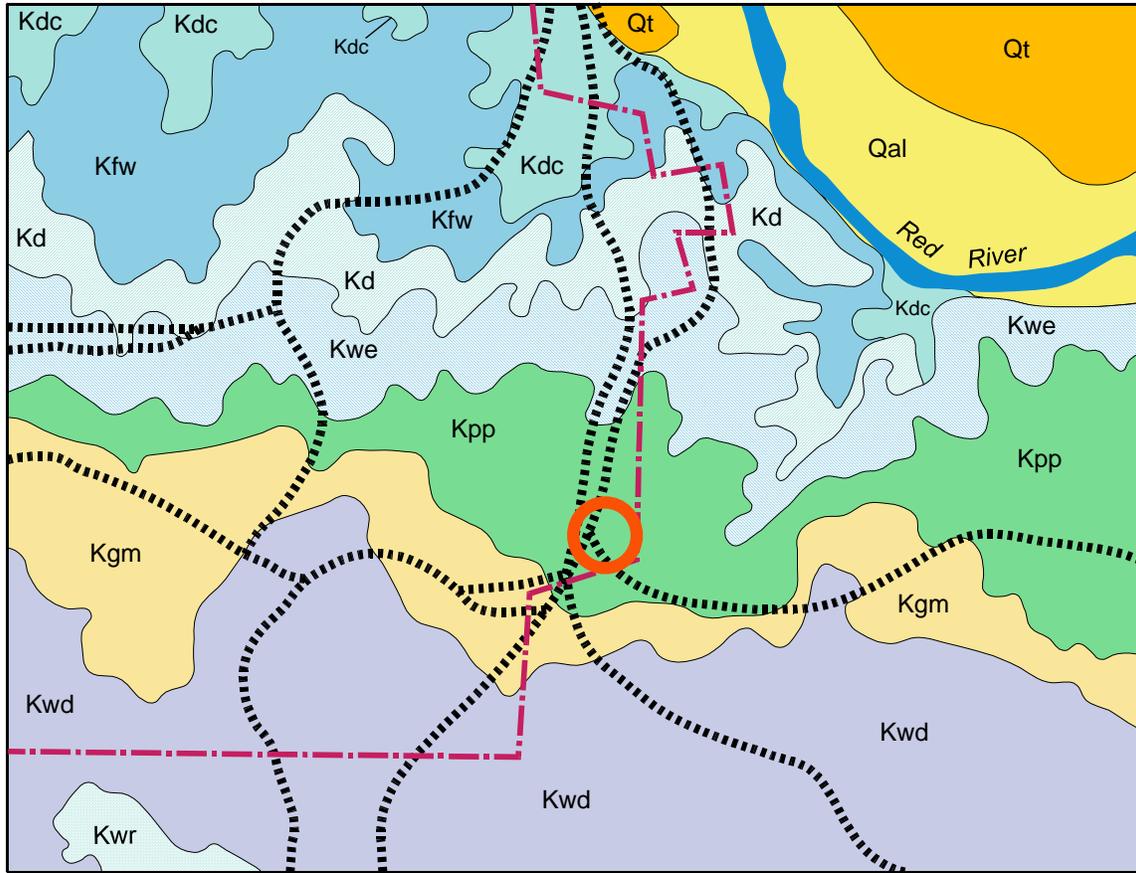


Figure 8: Surface geology in the Denison area (after McGowen and others, 1991).

Possible water-level declines around the railroad well

When a well is pumped, the water level in the well is lowered. This lowered water level induces water to flow from the aquifer into the well. In other words, water flows from a higher water-level elevation or pressure to a lower water-level elevation or pressure. This decline of water levels extends into the aquifer in what is called a cone of depression. The shape and extent of this cone of depression depends on the hydraulic characteristics of the aquifer and the amount of pumping.

There is not enough information about the aquifer to definitively determine whether or not pumping of the railroad well would have dried out the East well. This would require us to drill and test several wells in the area. However, we believe there is enough information to assess whether or not this was a possibility. To do this, we assessed how water levels might have declined around the Railroad well. To estimate the possible effects of pumping the Railroad well might have had on water levels in the Pawpaw Formation, we used a program developed by Barker and Macdonald (2000) that simulates pumping tests in large-diameter wells. We used this program instead of the Theis (1935) equation because pumping a large diameter well can result in less drawdown than in a small diameter well due to the large infiltration face of the well.

Because the drawdown of water levels in the Pawpaw Formation were probable large compared to its thickness, we used an equation developed by Jacob (1944, as reported in Walton, 1970) to calculate the drawdown that would occur in an equivalent nonleaky artesian aquifer, s_a , given the observed drawdowns from a water table (unconfined) aquifer, s_{wt} :

$$s_a = s_{wt} - \frac{s_{wt}^2}{2m} \quad (1)$$

where m is the initial saturated thickness. The lowering of the water table in a thin aquifer results in greater drawdowns. Solving for s_{wt} using the quadratic formula and using the negative root results in:

$$s_{wt} = m - \sqrt{m^2 - 2ms_a} \quad (2)$$

For our analysis, we first used the Barker and Macdonald (2000) program to calculate drawdown (s_a) away from the Railroad well. We then used equation 2 to calculate s_{wt} assuming m equaled 30 feet. We chose an initial saturated thickness of 30 feet to represent the maximum thickness of the sand in the Pawpaw Formation.

Assuming that the Railroad was able to rely on their well as a supply at 25,000 gallons per day and knowing the thickness of the aquifer and the pumping rate allowed us to define the lower limit of the hydraulic conductivity of the aquifer. The saturated thickness of the aquifer puts an upper limit on the amount of drawdown. Therefore, we used the Barker and Macdonald (2000) program and the Jacob (1944) correction to calculate this lower limit assuming that there would

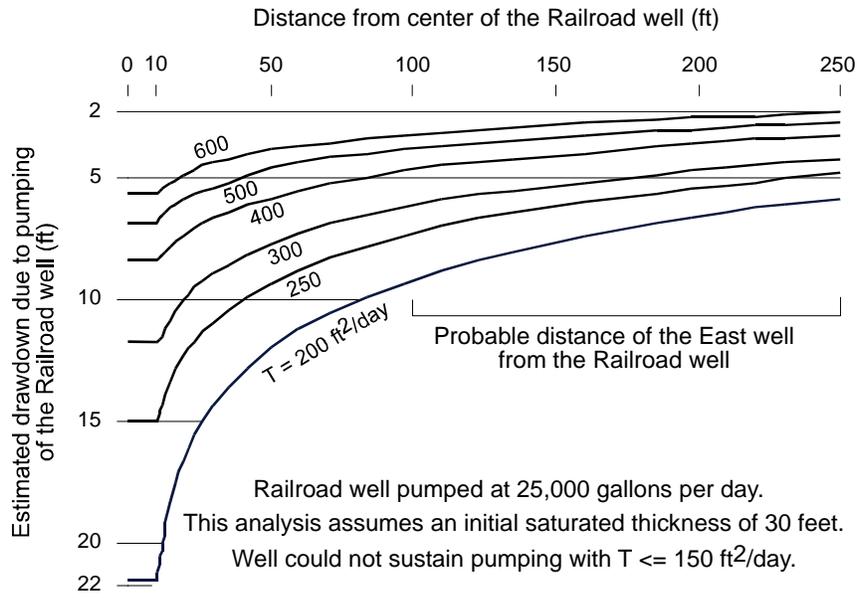


Figure 9: Estimated drawdown around the Railroad well for different transmissivity values (T) and for different distances.

be no more than 30 feet of drawdown. This results in a transmissivity of no lower than about 185 ft²/day or a hydraulic conductivity of about 6 ft/day (which is within the probable range we mentioned earlier). Because lower transmissivities and hydraulic conductivities result in greater amounts of drawdown, these lower-limit values also represent the greatest amount of drawdown away from the Railroad well (given all of the other assumptions). This lower-limit value results in about 2 to 10 feet of drawdown on the East properties (Figure 9).

This analysis shows, given the various assumptions, that the Railroad well may have had an effect on the East well, but probably not enough to make it go completely dry. If there was a uniform saturated thickness of 30 feet across the site, this amount of drawdown would not have been enough to have dried up the East well. A smaller saturated thickness would result in less drawdown at the possible locations of the East well. A deeper depth to water with the same saturated thickness increases the likelihood that the East well went dry when the Railroad pumped its well. This likelihood also increases as the saturated thickness gets thicker. Any definitive analysis on whether or not the Railroad well dried up or had any effect on the East well would require site-specific analysis of the hydrogeology in the Owings Street and Lamar Avenue area.

Drought in 1901?

When we visited Denison, we looked through microfiche of the local paper at the time of the East case, the Sunday Gazetteer. While we did not find anything concerning the lawsuits against the railroad concerning pumping, we did notice that there were complaints about a drought

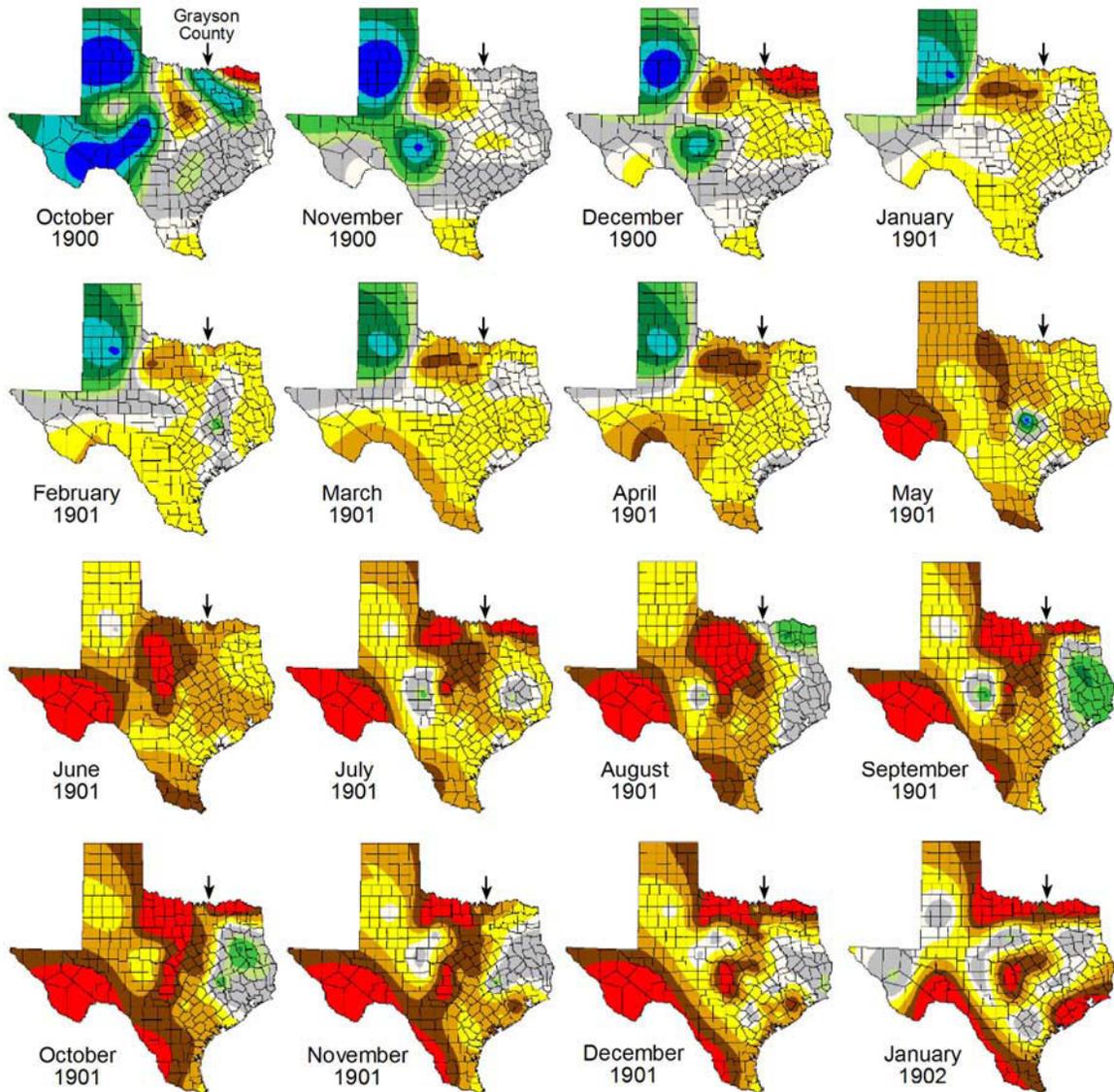


Figure 10: Palmer Drought Severity Index maps of Texas from October 1900 to September 1902 (maps from NADSS, 2004)(Continued on next page).

in the area in 1901. The newspaper refers to the KATY railroad digging a well in the bottoms of the Red River and piping 750,000 gallons a day of water to Denison in support of operations, a distance of about 2.5 miles. Could drought have been a factor in Mr. East's well and his neighbors' wells going dry?

Precipitation was about 10 to 15 percent lower than average for eastern Grayson County for 1896 to 1899 (Lowry, 1959, plate 2). In 1901, rainfall was about 30 percent lower than normal (Lowry, 1959, plate 3). Palmer Drought Severity Indices for the Denison area suggest that Grayson County was in moderate to severe drought conditions from December 1900 through August of 1902 (Figure 10). Although we do not know specifically how water in the Pawpaw

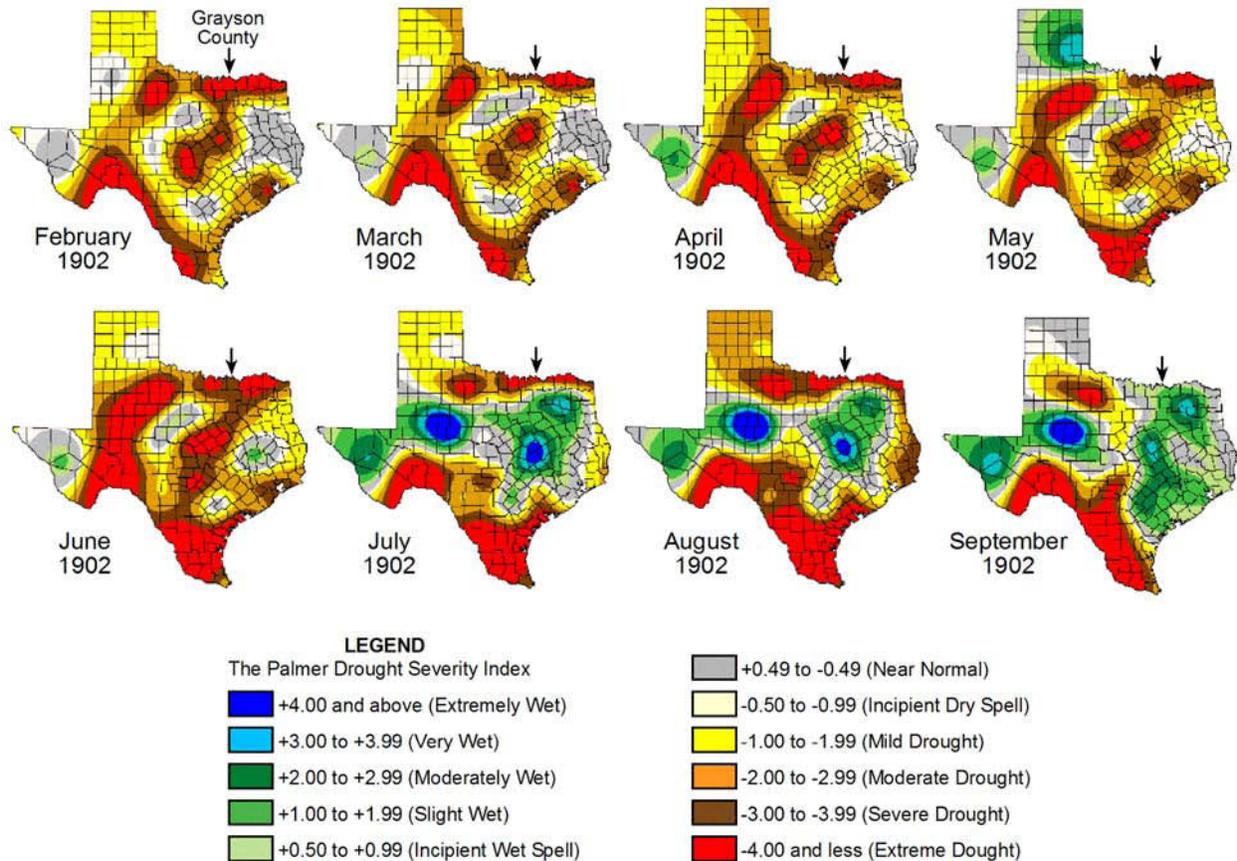


Figure 10: Continued.

Formation responded to this drought, we expect that water levels dropped in response to lower rainfall as is typical of shallow aquifers (for example, see Mace, 1998, and Wickham, 1991). Therefore, it is very likely that drought had an effect on water levels in the Pawpaw Formation and in the East well.

Conclusions

When the Texas Supreme Court ruled against Mr. East in 1904, it referred to language from an 1861 Ohio Supreme Court decision that described groundwater as "...secret, occult, and concealed..." By 1861, most scientists adhered to the percolation theory, which accurately described recharge, flow, and discharge of water in an aquifer. However, although Darcy's law had been established at that time, it was not until 1863 that it was used to describe groundwater flow to a well and 1870 that it was used to characterize aquifer properties and predict water-level declines. By 1904, the science of groundwater had progressed considerably. However, the propagation of hydrogeologic science to the general public was probably non-existent. Although aquifers are no longer secret and occult, they are often complex. Site-specific predictions of aquifer response often require site-specific information and analysis.

Without site-specific information, it is impossible to assess whether or not the well dug by the Houston and Texas Central Railroad caused Mr. East's well to go dry. However, it does appear reasonable that pumping of the Railroad well would have caused water levels to decline in a well on Mr. East's property, although probably not by itself to the level of causing the well to go dry. Water levels in the shallow aquifer probably also declined due to a drought the area experienced from December 1900 through August of 1902.

Acknowledgments

A number of people in Denison were very helpful in our investigations of the Railroad and East wells, including Mr. Kurt Kemp and Ms. Genevieve Hoover at the Eisenhower Birthplace State Historical Park for our initial orientation and viewing of historical maps; Mrs. Robert Riggins at 201 East Morgan, who lived across the street from Mrs. East, for information about the East property; Mr. Chuck Pool, who currently owns the land the Railroad well was located on; Mr. Frank Watkins of Denison for walking the site with us; and staff at the Denison Public Library, Grayson County Courthouse, and Red River Historical Museum for access to materials.

We also thank Mr. Robert Bradley for generating the Palmer Drought Severity Index maps; Mr. Doug Coker for assistance with maps and well files; Mr. Randy Larkin for French translations and discussions; Mr. Richard Preston for discussions on old railroads and books on Denison; staff at the Texas State Library and Archives Commission for assistance with the original East case materials; and Ted Angle, Bill Mullican, and Ruben Ochoa for helpful reviews and comments. We are particularly grateful to Robert Flores and Suzanne Schwartz, both lawyers, for their reviews and discussions of the legal references in this paper.

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Endnotes

¹ The Handbook of Texas

² The Handbook of Texas

³ The Handbook of Texas

⁴ Information in this paragraph comes from District Court (Grayson County) documents, including Mr. East's First Amended Original Petition and the Court's Findings of Fact. There are some disagreements between Mr. East's statement and the Findings of Fact. For this paper, we used the information in the Findings of Fact if there was disagreement.

⁵ The Houston and Texas Central Railroad had been in Denison since 1873.

⁶ Court documents suggest Mr. East owned and rented the property in question. Cemetery records show that Mr. William Alexander East was born on October 3, 1851, died in March of 1933, and married Ms. Dixie Owen.

⁷ It is not clear from court documents when the neighborhood wells went dry. Pumping of the railroad well started in August 1901. Court documents filed for the Texas Supreme Court case show that Mr. East's First Amended Original Petition was filed December 16, 1902. However, the railroad's Original answer was filed April 5, 1902. This suggests that Mr. East filed his original petition sometime between August 1901 and April 1902.

⁸ Court documents show the Findings of Fact and Conclusions of Law of the District Court referring to "W. A. East, et al," several case numbers, and several landowners and wells.

⁹ *Houston & Texas Central Railroad .Company v. East*, 98 Tex. 146, 81 S.W. 279 (Tex.1904).

¹⁰ An injury without a remedy.

¹¹ Correlative rights hold that when a source of water does not provide enough for all users, the water is reapportioned proportionally on the basis of prior water rights held by each user. The correlative doctrine of ground water rights means that lands overlying an aquifer can rightfully withdraw water from it, as long as similar use by other lands over the same aquifer is not injured.

¹² Tex. Const. Art. XVI, §59.

¹³ Based on 2000 water use survey information collected by the Texas Water Development Board.

¹⁴ See, for example, *Sipriano v. Great Springs Water of American, Inc.*, 1 S.W.,3d 75 (Tex. 1999).

¹⁵ *Sipriano v. Great Springs Water of American, Inc.*, 1 S.W.,3d 75 (Tex. 1999) quoting *City of Corpus Christi v. City of Pleasanton*, 276 S.W.2d at 805-806.

¹⁶ This section is based on summaries by Meinzer (1934), Jones and others (1963), Roshenshein and others (1976), Fetter (2003), and research by the authors.

¹⁷ Biswas (1970) as summarized by Fetter (2001).

¹⁸ Vitruvius may not have been the first to do this as some scholars believe he based his work on other work that existed at the time but is now lost. At a minimum, Vitruvius' work is the earliest identified to have survived to modern times.

¹⁹ Court documents suggest that the Houston and Texas Central Railroad owned a "...railway which ran into the City of Denison from a southeasterly direction, crossing Owings Street and Lamar Avenue in a northwesterly direction..." However, the railway actually came into the town from the southwest and heads across town in a northeasterly direction. We believe that the incorrect directions may have been derived from the 1876 plat map which is oriented with north pointing to the left (Figure 6).

²⁰ Staff at the Red River Historical Center cautioned us that some artistic license was generally used when representing residential structures.

²¹ We base this on a 1876 plat map we found at the county courthouse and on the 1914 Sanborn Fire Insurance map. The Sanborn maps suggest there was a Cooks Addition and a Cooks First Addition. Perhaps the Cooks First Addition came after the Cooks Addition and could therefore be interpreted as Cooks Second Addition.

²² Volume 133, p. 380.

²³ Interestingly, Mr. East and his wife Dixie bought lot 16 on Block 5 of Cooks First Addition in 1904 (Figure 6). Sadly, that house was demolished only a few months before our trip to Denison. Mrs. Robert Riggins, who currently lives on the lot to the east across Lamar Avenue, remembers Mrs. East. She didn't recall Mr. East, but recollected that he worked for the railroad. We can probably safely assume he did not work for the Houston and Texas Central Railroad Company.

²⁴ McGowen and others (1991) refers to the Weno Limestone.

²⁵ Hydraulic conductivity is a measure of how easily an aquifer can transmit water.

²⁶ Miller's spring, which initially supplied water to Denison in its early days, was located at 1401 West Walker Street (Maguire, 1991, p. 25). This spring likely flowed from the Pawpaw Formation and suggests that the water table could intersect the land surface of the Pawpaw Formation. On our trip to Denison, we noted that Pawpaw Creek was flowing. However, it was unclear if this was natural discharge from the aquifer or anthropogenic flow from the urban landscape.

Chapter 6

Rule of Capture: The Future

C. E. Williams

Panhandle Groundwater Conservation District

As we look to the future of Texas' Rule of Capture, I would suggest that the 100-year old doctrine governing groundwater is better than any alternative proposed so far. The Rule is effectively counter-balanced by groundwater conservation districts, through authority given in Chapter 36 of the Water Code and Senate Bills 1 and 2, and should only be modified if benefits are clearly understood.

Local groundwater districts and the pair of senate bills should be given time to prove their effectiveness. Districts throughout the state are only now updating their operating rules to reflect the stronger mandate given them in Senate Bill 2 that was passed in 2001.

The real challenges to groundwater conservation districts are gathering sufficient science and having the intestinal fortitude to make the difficult decisions that must be made. Due to districts' unique hydrology, geology and economy these locally elected or appointed boards of directors must set some precedents with their rules and policies. In some cases no useful precedents exist.

At the turn of the last century, groundwater was said to be "mysterious and occult" because of lack of knowledge about the various aquifers' geology and hydrology. Certainly, we have learned a great deal about some of the state's aquifers, such as the Ogallala. However, in other areas of the state much less is known, adding to the regulators' dilemma.

District boards must constantly balance science and policy. It is difficult to know precisely how much information is needed to make good decisions on the allocation and regulation of various aquifers. Too little information usually leads to poor decisions.

Too much information costs money, time and resources – of staff and consultants. Even for districts with better funding it is not feasible or practical to collect every piece of information before making management decisions.

Fortunately, resources are available. They include the Texas Water Development Board, Texas Commission on Environmental Quality, Texas Railroad Commission, Texas Water Well Drillers Board, local drillers, other Districts in the region and professional consultants.

I would suggest that the issue most in need of attention today is whether a remedy should exist for damages inflicted on a neighbor by excessive well pumping in a common area. At the moment the only remedy is to drill another well and compete for the water.

Over the past few years the issue has come to the forefront as water marketers have stepped up efforts to transfer water from one area to another. In many parts of the state the real or perceived threat is that water resources will fail to meet both the long-term needs of the exporting area and the short-term needs of the receiving area.

Balancing these competing demands could require major changes in the Rule of Capture or perhaps simply minor changes to the authority of groundwater districts.

In the Panhandle Groundwater Conservation District we balance these competing demands with a Depletion Rule that identifies wells which are excessively pulling down the aquifer level. If the decline persists, we can set production caps, limit additional drilling, require well meters and require implementation of water conservation and drought contingency plans.

It has taken the Panhandle District 48 years to develop the appropriate rules and science to deal with the unique Ogallala Aquifer underlying our region. I feel that we have most of the tools needed to do a good job of conserving and regulating water for our people in the Texas Panhandle.

Younger districts can learn from the experience of their elders. Cooperation among districts can help newer ones assemble the right tools and become fully functional.

Texas water law, in general, has been reviewed every session of the Legislature since I have been involved with groundwater districts. In my crystal ball, I see some possible changes to The Rule of Capture. It most likely will be reviewed by the Legislature in the 2005 session.

I expect questions about whether our methods of regulating water are adequate for today and the future. Are groundwater districts fulfilling their mandate and is there a better method for Texas?

I believe that our system of groundwater management has worked as well as most others in the western United States. That success is all the more remarkable given Texas' vast diversity in geography, hydrology, climate and population as well as sheer size.

During the 14 years that I've worked in water resources management I've met countless counterparts and had a chance to evaluate various methods of groundwater management and allocation. All seek to balance the competing demands for an ever scarcer natural resource, regardless of what method is used.

In any case, we must ensure that the cure is better than the disease. I believe that the cure may already be in place, with only minor changes needed.

Chapter 7

The Future of the Rule of Capture

Gregory M. Ellis
Edwards Aquifer Authority

Introduction

In 1997, the Supreme Court of Texas shocked the state by agreeing to hear the *Sipriano* case. *Sipriano v. Great Spring Waters of America, Inc.*, 1 S.W.3d 75 (Tex. 1999). The Siprianos claimed that their domestic well dried up as a result of the Ozarka Company operating several large wells nearby. Ozarka disputed those facts, but relied on the Rule of Capture to deny any liability for damage to the Siprianos. By deciding to hear the case, the Court signaled that it may be open to overruling the *Houston & T.C. Ry. Co. v. East*, (*East*), 81 S.W. 279 (Tex. 1904) decision. The Court ultimately upheld *East*, but (once again) strongly urged the Legislature to take action to regulate groundwater withdrawals.

The debate over the Rule of Capture continues, and assuming the Legislature chooses to leave the Rule of Capture in place, there are still several issues yet to be determined. This paper discusses these issues.

Ownership of groundwater in place

The Absolute Ownership doctrine¹ and several court opinions seem to indicate that groundwater is owned in place, however the Rule of Capture seems to say the opposite: that any neighbor can take your water with impunity. Certainly captured water is the property of the person who captures it, but what of the water still in the ground? This unanswered question could lead to a number of difficult issues, primarily whether a groundwater conservation district (GCD) may restrict or even prohibit production of groundwater without causing a taking of private property. This very issue was raised in *Barshop v. Medina County Underground Water Conservation Dist.*, 925 S.W.2d 618 (Tex. 1996), but the Court declined to answer it. At some point a GCD will deny a well construction permit and that landowner will file a “takings” lawsuit. The Supreme Court

¹ The Absolute Ownership Doctrine is old English law that provides that the owner of the surface estate also owns everything below or above that land. Land ownership begins with the presumption that any activity on the land is permissible (See *East's* discussion of *Pixley v. Clark*, 35 N.Y. 520, 91 Am. Dec. 72. (1866)), and only state action to limit those activities can prevent unfettered development of any kind. Over the last 100 years those state restrictions require permission from the state to perform almost any development activity, but the underlying property law presumption remains the same.

of Texas will finally have to answer this question, and the answer may dramatically affect groundwater regulations throughout the State.

The “takings” suit will probably be argued on several different levels. First, the landowner will argue that his groundwater has been taken by the District. The first hurdle will be proving that the groundwater is owned in place, but the second hurdle is trying to quantify the property right. Depending on the type of aquifer involved, groundwater generally does not remain in place beneath the surface estate. Instead it flows from property to property. Unlike minerals such as oil and gas, groundwater can also recharge or be discharged through springs, changing the amount of water beneath a particular piece of property on a regular basis. Any attempt to quantify the water right as the area of the aquifer beneath the surface estate ignores the fact that the water flows. Quantifying the water right as the amount that flows beneath the property in a given year ignores the rights of adjoining neighbors. Quantifying the right as the amount that can be recovered without affecting adjoining landowners creates a right dependant upon the amount of rainfall and the production habits of others. These problems with defining the nature of groundwater while it is still underground make any takings lawsuit very problematic. The real question is whether the ownership *interest* has evolved into a *vested* property right. It is much easier to define the moment of capture as the moment the property right vests, which leaves the landowner with nothing more than a mere expectation of production for water still in the ground.

The second level of attack will be about the other property affected by the permit denial. If a landowner has a business that requires water, and a district’s rules or permit decisions then deny access to that water, the property taken may be the business itself. If it is impossible for the landowner to continue the business without a permit, and through no fault of his own he cannot obtain a permit, he may have an excellent “takings” claim. Clearly, if a government agency steps in to close a business for any reason other than unlawful or nuisance activity, the business owner has a right to restitution. The picture is cloudier, however, where the property is not being used but there are defined plans for development. Again, a mere expectation for future development does not give rise to a vested right. But what if the landowner cannot implement *any* development plans without water? If the permit denial leaves the land without access to water and that removes 100% of the development rights, the land is now useless and the owner may have a legitimate “takings” claim. Proving the property cannot be developed without a well, however, should prove extremely difficult; much of west Texas was settled when the only water supply came from rainwater harvesting.

Finally, the landowner may try to file a “takings” claim under the Texas Real Property Rights Preservation Act. One landowner already tried such a suit against the Edwards Aquifer Authority, and the Texas Supreme Court found that groundwater conservation districts are generally exempt from the provisions of that Act. *Bragg v. Edwards Aquifer Auth.*, 71 S.W.3d 729 (Tex. 2002).

The nature of the property

Property can be divided into two categories: Real property (land and fixtures to the land) and personal property (anything that can be easily transported from one area to another). Water, like oil, gas and minerals, is a part of the soil underlying any piece of real estate. But once severed, it can be transported through pipelines, trucks or bottles. The water rights associated with a particular piece of real estate are difficult to quantify, especially where the aquifer regularly recharges. Groundwater conservation districts can quantify the withdrawal rights through a production permit, but in some cases even that permit is transferable. If the water in the ground is real property, is the permit personal property? Although this question provides great debate material for lawyers, it may not have much of a direct impact on the general population until various taxing entities try to tax water. Appraisal districts may begin to include the value of the water underground in the overall value of the property. There may be attempts to apply an oil and gas style severance tax. With the Legislature, counties, cities, and school districts all looking for revenues, this issue may come to a head sooner than later.

This issue may also affect questions of severability. In some aquifers the groundwater flow allows capture virtually anywhere along the surface. In others, production is limited to certain locations or properties. Landowners all over the state have been selling their “water rights” and severing those rights from the real estate, with or without the benefit of a permit from a groundwater conservation district.

A recent case in Medina County illustrates how the issue may play out across the state. The Lindsey family purchased property including a pecan orchard from the Herrmann family. Prior to the sale, the Herrmann’s had obtained from the Edwards Aquifer Authority an Initial Regular Permit for the irrigated land, and transferred the permit to other entities. The real estate contract for the land clearly reserved the groundwater withdrawal rights to the transferor. However, the Edwards Aquifer Authority’s enabling legislation includes a provision restricting the transfer of one-half of the irrigation permits, and based on that restriction the Lindseys sought one-half of the groundwater rights. The Lindseys prevailed at the EAA, at the trial court, and the 4th Court of Appeals. In each case, the Lindsey’s claim to the water rights prevailed over the contract, and the Court of Appeals even made it clear the Herrmanns are not due any additional consideration.

Despite the seeming unfairness of awarding the Lindseys something they have neither bargained nor paid for, the Herrmanns have no remedy in the form of rescinding or canceling the deed. The Lindseys proved they are the owners of one-half of the permitted water rights pursuant to the Edwards Aquifer Authority Act and therefore entitled to have the deed reformed to reflect their interest.

Herrmann v. Lindsey, ___ S.W.3d ___; 2003 WL 624906 (Tex.App.—San Antonio).

Although the Herrmann case turns on a specific statutory provision, this same scenario may play out over the rest of the state. Groundwater rights have been transferred by contract in some cases, and by deed in others. In some cases the transfers involve permits

issued by groundwater conservation districts, or there may not be a district covering the land in question. With so many different types of transactions it is only a matter of time before these questions lead to problems and eventually to lawsuit.

Areas that fail to approve GCD's or are otherwise unregulated

The primary complaint against the Rule of Capture is that areas outside groundwater conservation districts remain unregulated and therefore “wasteful” of the natural resources. If the courts decide to make a change in the common law it will undoubtedly be a result of a dispute in an unregulated part of the state. In his concurring opinion in *Sipriano*, Justice Hecht warned of potential action by the Supreme Court:

I agree with the Court that it would be inappropriate to disrupt the process created and encouraged by the 1997 legislation before they have had a chance to work. I concur in the view that, for now—but I think only for now—*East* should not be overruled.

Sipriano v. Great Spring Waters of America, Inc., 1 S.W.3d 75, 83 (Tex. 1999) (Hecht, J., concurring).

The message is clear: if the legislative scheme of regulation through groundwater conservation districts does not work, the Supreme Court will likely overturn the Rule of Capture in favor of one of the other tort theories: correlative rights, reasonable use, or the Restatement of Torts version. Although 90% of the State's usable groundwater is located within the boundaries of a groundwater conservation district, there are important areas that have either never had a district or never approved creation of a district. If these aquifers do not get protection, the resulting overproduction will inevitably lead to conflict, and quite possibly the end of the Rule of Capture in Texas.

Chapter 8

Transcript of Record and Opinion of Texas Supreme Court and Other Documents

Robert E. Mace, Robert F. Flores, Cynthia Ridgeway, and Edward S. Angle
Texas Water Development Board

The purpose of this paper is to present the original documents of the East case, the case that established the Rule of Capture in Texas. We have included copies of the documents as attachments to this paper. These attachments are from original documents on file at the Texas State Archives. Personnel at the Texas State Archives photocopied the documents, and we then scanned the documents and resized them to fit within the margins of this report. We made some minor adjustments to some documents to facilitate their presentation on the page. These modifications included removing the title “Supreme Court, Austin.” from the Texas Supreme Court decision to maximize the size of the document on the page. We digitally removed some bleed-through text from a few pages. We did not change any content.

The documents on file at the Texas State Archives do not include any documents from the original filing of the case in District Court of Grayson County. However, the pertinent documents of that case are included in an appeal to the Court of Civil Appeals at Dallas.

Documents in this paper include:

- I. Grayson County District Court, Sherman, Texas (p. 97).
 - a. Plaintiff’s First Amended Original Petition (p. 99).
 - b. Defendant’s Original Answer (p. 104).
 - c. Trial Court’s Findings of Fact and Conclusions of Law (p. 105).
 - d. Trial Court’s Judgment for the Defendant (p. 108).
 - e. Plaintiff’s Motion for a New Trial (p. 109).
 - f. Trial Court’s Order Denying the Motion for the New Trial (p. 109).
 - g. Plaintiff’s Appeal Bond (p. 110).
 - h. Plaintiff’s Assignment of Errors (p. 111).
 - i. Clerk’s Bill of Costs (p. 112).
 - j. Certificate of Clerk, Authenticating Transcript of Record (p. 112).
- II. Court of Civil Appeals – 5th Supreme Judicial District, Dallas, Texas (p. 113).
 - a. Brief for Appellee (defendant) attaching Appellant’s (plaintiff) Assignment of Errors and Arguments Supporting Trial Court (p. 113).
 - b. Court’s Opinion Reversing Trial Court and Rendering Judgment for Appellant (plaintiff) (p. 125).

- c. Appellee's Motion for Rehearing (p.130).
- d. Appellee's Application for Writ of Error (p. 135).
- e. Court's Order granting Appellee's Application, denying Appellee's Motion and Certification of Clerk Authenticating Transcript of Record (p.147).
- f. Appellee's Appeal bond, (covering all court costs) (p. 149).
- g. Appellee's Appeal bond, (covering only Texas Supreme Court costs) (p. 152).
- h. Certificate of Bill of Costs (p. 155).

III. Texas Supreme Court, Austin, Texas (p. 157).

- a. Citation (service) ordering Defendant of Errors (plaintiff) to appear before the Texas Supreme Court, exercised by Grayson County Sheriff (p. 157).
- b. Supreme Court's Opinion and Judgment Reversing Appeal and Affirming Trial Courts Opinion (p. 160).
- c. Defendant of Error's Motion for Rehearing before the Supreme Court (p. 167).
- d. Precept Ordering Grayson County Sheriff to deliver a copy of the motion for Rehearing to Plaintiff of Error (defendant) (p. 170).
- e. Defendant of Error's Motion asking that their Motion for Rehearing be dismissed (p. 172).

I. Grayson County District Court, Sherman Texas

No. 1333.

Filed in Supreme Court
May 18. 1904
F. J. Connerly Clerk
By J. J. Jollynick Deputy

Court Civil Appeals reversed
District Court affirmed
June 13. 1904

The Dist
Submitted my
26 1904
Answer by counsel
for Plaintiff

No. 74. Doney Printing Co., Stationers, Printers and Binders, Dallas—12631000. CLASS 2.

No. No. 1333. 5th Dist

W. A. East
Appellant's Plaintiffs in Error.

vs.

A. J. C. R. R. Co.
Appellee's Defendants in Error.

From the District Court of Grayson Co.

Applied for by Mosley & Epstein Attorneys
for Appellant on the 12th day of January
1903 and delivered to Mosley & Epstein
on the 20th day of January 1903

C. Arnold
Clerk District Court Grayson County.

Filed in Court of Civil Appeals, at Dallas
the 2nd day of April 1903

George Blair Clerk.
Court of Civil Appeals, District of Texas.

Attorneys for Appellant. P. O. Address.

Attorneys for Appellee. P. O. Address.

-----: I N D E X :-----

Caption..... 1
Plaintiff's First Amended Original Petition..... 1
Defendant's Original Answer..... 6
Findings of Fact and Conclusions of Law..... 7
Judgment..... 10
Plaintiff's Motion for New Trial..... 11
Order on Motion for New Trial and Notice of Appeal..... 11
Appeal Bond..... 12
Plaintiff's Assignment of Errors..... 13
Bill of Costs..... 14
Certificate of Clerk..... 14

was the owner in fee simple of the following described property, to-wit:

Two lots and one-half on the corner of Lamar Avenue and Morgan Street, Lots 1 and 2 and one-half of 3, Block two, Cook's second addition to Denison, Grayson County, Texas.

That the defendant, at all times mentioned in this petition, and for many years prior thereto, was the owner of and was operating a certain line of railway which ran into the City of Denison from a southeasterly direction, crossing Owing Street and Lamar Avenue in a northwesterly direction, and extending beyond that point in each direction for many miles.

Plaintiff's
First Amended
Original
Petition.

Plaintiff shows that for a long period of time prior and including, to-wit: the month of August, 1901, he had upon the proper hereinbefore described a certain well about 33 feet deep, which was supplied with water by a subteranean stream which ran from near the intersection of Lamar Avenue and Owing Street in the city of Denison, Grayson County, Texas, to the said well: or, if he is mistaken in this, then this plaintiff says that the said well was fed by percolations of water through his land. He shows that his said well was filled, and has been for many years prior to the month of August, 1901, with pure water, and that the said well supplied large quantities of water to this plaintiff, sufficient for all the ordinary household purposes and the natural requirements of such prop-

erty. That the aforesaid stream or percolations supplied said well with, practically, an inexhaustible supply of well water, which water he alleges was pure, soft water of a kind that it was almost impossible to secure in the markets.

Plaintiff further shows that said well and supply of water was of a permanent character, and but for the facts hereinafter set out, would have remained inexhaustible.

He shows further that on or about sometime in the month of July, 1901, defendant company sent its agents and employees down to near a point of the intersection of Owing Street with Lamar Avenue, and that they examined the wells in the surrounding neighborhood, and traced the course of the subteranean waters until they learned that by sinking a well at or near said point they could extract from the surrounding country all of the water that naturally and usually percolated into and through said land, and, particularly, that which supplied the well of the plaintiff, by digging a large well at or near said point and supplying it with powerful pumping engines and apparatus. That they did, sometime in the month of August, sink a large well at said point, about twenty feet in diameter and about 80 feet deep. That said well was so dug that it, in connection with the powerful pumps and engines with which it was supplied to extract water from land, drew all the water from under plaintiff's land, as well as that of all of the other surrounding land owners for a very large territory.

Plaintiff's
First Amended
Original
Petition.

3.

Plaintiff's
First Amended
Original
Petition.

Plaintiff further alleges that the water so taken from said well was not taken for the purposes of developing or using this land as land for any useful, profitable or pleasurable purpose, but that the said well and land is used for no other purpose whatsoever except for the purpose of extracting immense quantities of water from under defendant's land and the land of this plaintiff and other parties. That said water was used for the purpose of furnishing the entire Houston & Texas Central Railroad Company tributary to Deason with water, and that many millions of gallons of water have been extracted from the said well; and that the defendant has continued and is now extracting and pumping from said well about eighty-five thousand (85000) gallons per day. That at the time it sunk said well, it did so for the purpose of obtaining more water from said land than its natural and reasonable supply of water, and did so knowing that it was extracting and appropriating it to its own use all of the water under this plaintiff's land, and that in this way it dried or caused to be dried up the subteranean streams and percolations of water which supplied plaintiff's well and thereby cut off the supply of water to this plaintiff's well, and that it proposes to continue to do so for all time to come.

4. Plaintiff shows that by reason of said action on the part of defendant, his well has been absolutely destroyed as a well, and is now of no value whatever. That his natural and necessary water supply has been cut off so as to make it impossible

for him to secure any water whatever from said well, and that by reason of the premises he has been damaged in the sum of eleven hundred dollars. He alleges that the reasonable value of his said well was, to-wit: the sum of eleven hundred (1100) dollars. That he has been compelled to purchase water and that the rental value of his property, by reason of these facts, has been reduced, to-wit: the sum of thirty (30) dollars per year.

Plaintiff's
First Amended
Original
Petition.

He shows further that the defendant mistaken from its said well an unreasonable and unnatural supply of water out of all proportion to any reasonable or legitimate use of the said land as land. That it uses said water in supplying a vast number of engines with water and for all other purposes necessary and usual in conducting a large system of railroad extending over several hundred miles. That it constructed said well for the purpose and with the intention of committing a trespass upon the land of this plaintiff and of extracting from said well its natural and customary water supply of underground water. That it equipped its well with engines of such great power as to extract from plaintiff's land its supply of water. That the quantity of water taken by it was unreasonable and greatly in excess of any purpose for which the land of defendant could be used as land, and that in fact said land is being used for no other purpose whatever except for the purpose of extracting the water of this plaintiff and other

adjoining land owners from their land.

Premises considered, plaintiff shows that he has been damaged in the sum of eleven hundred (1100) dollars, for which he prays judgment, as well as for all costs of suit and for such other and further relief, general or special, as he may in this behalf deserve.

Plaintiff's
First Amended
Original
Petition.
Filed
Dec. 16. 1902.

MOSELEY & EPPSTEIN,
Attorneys for Plaintiff.

Filed December 16th, 1902. ----- C.S. ARNOLD, Cl'k. D.C.

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Plaintiff's

W . A . East ## In the District Court,
No 13880 -vs- ##
H. & T.C.R.R. Company. ## Grayson County, Texas.

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Now comes the defendant and says:

FIRST. Defendant demurs generally to plaintiff's petition because the facts therein alleged show no cause of action.

Defendant's
Original
Answer.
Filed
Apr. 5. 1902.

HEAD & DILLARD,
Attorneys for Defendant.

SECOND. Defendant demurs specially to plaintiff's petition because; first, it is too general, vague and indefinite, both in stating the acts of negligence charged against the defendant and the injuries received by plaintiff.

HEAD & DILLARD,
Attorneys for Defendant.

THIRD. Defendant, for general answer to plaintiff's petition, denies every allegation therein contained and demands

6.

strict proof thereof.

HEAD & DILLARD,
Attorneys for Defendant.

Defendant's
Original
Answer.
Filed
Apr. 5. 1902.

Wherefore defendant prays to be discharged with its cost.

HEAD & DILLARD,
Attorneys for Defendant.

Filed April 5th, 1902. ----- C.S. ARNOLD, Cl'k. D.C.

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The State of Texas, ## In the District Court,
 ##
County of Grayson. ## Grayson County, Texas.

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W. A. EAST, ET AL,
-vs-
HOUSTON & TEXAS CENTRAL RAILROAD COMPANY.

Nos. 13880 to 13888, inclusive.

I.

Findings of
Fact and
Conclusions
of Law.
Filed
Dec. 26. 1902.

In each of these cases I find as follows:

1ST. The defendant, the Houston & Texas Central Railroad Company, was the owner in fee simple of six (6) lots in the city of Denison, Grayson County, Texas, at the time mentioned in plaintiff's petition, and dug thereon a well twenty (20) feet in diameter and sixty-six (66) feet deep. It put therein a steam pump of sufficient strength to supply a three inch pipe, and with the exception of three or four days since Aug-

Findings of
Fact and
Conclusions
of Law.

ust, 1901, has daily taken from said well by means of said pump about twenty-five (25,000) thousand gallons of water. This water was taken from said well and used by it in its locomotives and machine shops operated by it in the city of Denison, in which said land is situated. Said well is supplied entirely by water percolating through its soil and that of adjacent lands, and not by any under-ground or other stream of any kind. Before digging said well, defendant made an examination of all of the surroundings, including the wells of the plaintiff, and made test holes with a view of obtaining the desired supply of fifty (50,000) gallons of water per day. Plaintiff was present when such examinations were being made, and consented for their wells to be examined by the defendant, and had no further conversation or communication with defendant upon the subject. From the examination made by it, defendant became satisfied that it could procure the desired supply of water upon its land as aforesaid, and dug said well for the purpose of obtaining the same for the uses hereinbefore set out. The wells were dug without any intention on the part of defendant of injuring the property of either of the plaintiffs, and did not know that such would be the effect. The water percolated into defendant's well at different depths, some of it coming in at the bottom thereof. The wells of plaintiffs are each about five feet in diameter and about thirty-three feet in depth, and are situated in different di-

8.

Findings of
Fact and
Conclusions
of Law.

rections and distances from defendant's well; are on lands owned by plaintiff in fee simple and which was used as a homestead by each of the plaintiffs; were dug prior to defendant's well, and had always been used by plaintiffs, up to the time defendant's well was dug, for household purposes, and, prior to that time, had always furnished an adequate supply of good water for such uses; and these wells have been dried up by the digging and use to which defendant has put its well. That the damage that each of plaintiffs and their land has sustained by the drying up of their wells is the sum of two hundred and six dollars and twenty-five cents, including both past and prospective injury to themselves, and their lots described in their petition.

2ND. I further find that the use to which defendant puts its well was not a reasonable use of their property as land, but was an artificial use of their property, and, if the doctrine of reasonable use as applicable to defined streams applies to such cases, this was unreasonable.

II.

I conclude that under the foregoing facts no cause of action is shown in behalf of plaintiffs in any sum whatsoever, because I do not believe that any correlative rights exist between the parties as to underground, percolating waters, which do not run in any defined channel.

The State of Texas, ## In the District Court,
 ##
County of Grayson. ## Grayson County, Texas.

W . A . E A S T

Nº 13880 -v-

HOUSTON & TEXAS CENTRAL RAILROAD COMPANY.

Plaintiff's
Motion for
New Trial.
Filed.
Dec.23. 1902.

Now comes the plaintiff in the above entitled and numbered cause and files this his motion for a new trial, and for cause shows:

1ST. That the Court erred in its findings of fact conclusion from the facts that defendant was not liable, because said finding was contrary to the law and contrary to the evidence.

MOSELEY & EPFSTEIN,
Attorneys for Plaintiff

Filed December 23rd, 1902. ----- C.S. ARNOLD, Cl'k. D.C.

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Order on
Motion for
New Trial.

W . A . E a s t ##

Nº 13880 -v-

H.& T.C.R.R.Company. ##

December 23rd, 1902.

Now on this day came on to be heard the motion of plaintiff for a new trial of this cause, and said motion being heard and considered by the Court is overruled, to which ruling of the Court plaintiff excepts and in open Court gives notice of appeal to the Court of Civil Appeals in and for the Fifth Supreme Judicial District of Texas: and ten days after adjournment of the present term of this Court is allowed plaintiff within which to prepare and file a statement of facts herein.

ll.

The State of Texas, ## In the District Court,
 ##
County of Grayson. ## Grayson County, Texas.

-----o-----
 W . A . E A S T
 Nº 13880 -vs-
 HOUSTON & TEXAS CENTRAL RAILROAD COMPANY.
 -----o-----

Now comes the plaintiff in the above entitled and numbered cause and makes the following assignment of errors committed by the Court upon the trial of said cause:

Plaintiff's
Assignment of
Errors.
Filed
Jan. 12, 1903.

-----:1ST:-----

The Court erred in its conclusion of law that under the facts the defendant was not liable.

-----:2ND:-----

The Court erred in overruling defendant's motion for a new trial.

-----:3RD:-----

The Court erred in failing to render judgment for plaintiff upon said facts.

MOSELEY & EPPSTEIN,

Attorneys for Plaintiff.

Filed January 12th, 1903. ----- C.S. APNOLD, Cl'k. D.C.

13.

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Clerk's:-	BILL OF COSTS.	Sheriff's:-	
Docketing.....	.20	Serving Cits.....	.75
Ent. Apprs.....	.30	Mileage.....	.10
Filing Papers.....	1.20	Jury Fee.....	.50
Issuing Cits.....	1.25	SHERIFF'S COST.....	\$1.35
Ent. Orders.....	1.50		
Ent. Comts.....	.20		
Ent. Mots.....	.15		
Issuing Subps.....	.25		
Taking Bond.....	1.50		
Assessing Damages....	.50		
Judgment.....	1.00	RECAPITULATION.	
Taxing Costs.....	.25	Clerk's Cost.....	16.55
Transcript.....	7.00	Sheriff's Cost.....	1.35
Certificate.....	.75	TOTAL COSTS.....	\$17.90
Recording Rets.....	.50		
TOTAL CLERK'S COST..	\$16.55		

Bill of Costs.

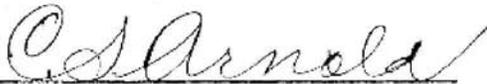
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The State of Texas,
County of Grayson.

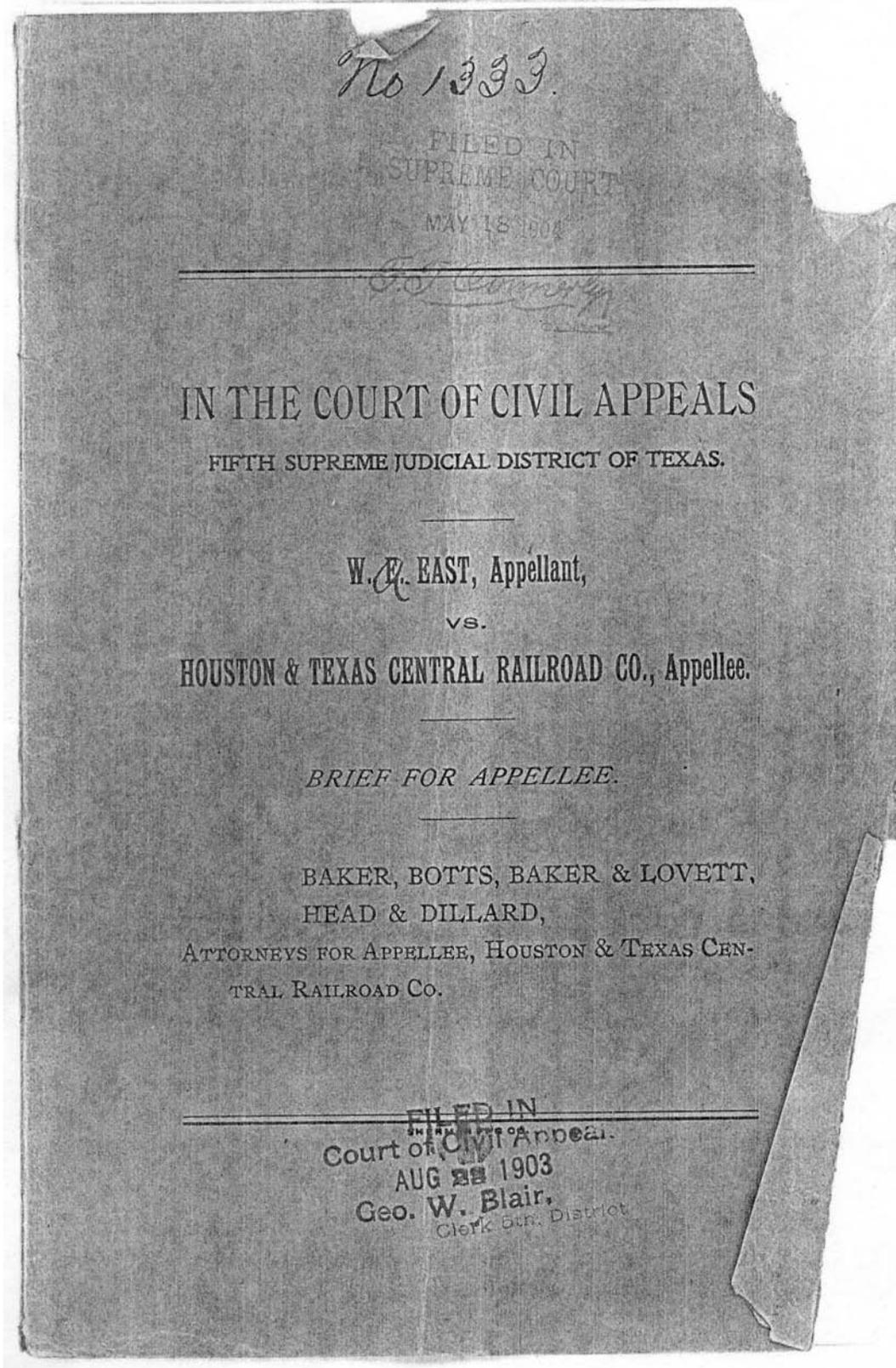
I, C.S. ARNOLD, Clerk of the District Court
of Grayson County, Texas, do hereby certify that the above
and foregoing thirteen and one-half (13½) pages of typewritten
matter is a true and correct copy and constitutes a complete
transcript of all the proceedings had on the trial of cause
No 13860, W.A.EAST vs. HOJERTON & TEXAS CENTRAL RAILROAD COMPANY,
as same now appear on file and of record in my office.

Certificate of
Clerk.

Given under my hand and seal of said Court
at office in the City of Sherman,
this January 30th, 1903.


Clerk of the District Court
of Grayson County,
Texas.

II. Court of Civil Appeals – 5th Supreme Judicial District, Dallas Texas



IN THE COURT OF CIVIL APPEALS

FIFTH SUPREME JUDICIAL DISTRICT OF TEXAS.

W. ~~E.~~ EAST, Appellant,

vs.

HOUSTON & TEXAS CENTRAL RAILROAD CO., Appellee.

BRIEF FOR APPELLEE.

FIRST COUNTER PROPOSITION, FIRST ASSIGNMENT OF ERROR.

An assignment in this language: "The court erred in its conclusion of law, that under the facts the defendant was not liable," is too general, and appellee objects to its consideration by this court.

AUTHORITIES.

Mynders v. Ralston, 68 Tex. 499;

Falls L. & C. Co. v. Chisholm, 71 Texas 528,
where this language is used: "The remaining assignments of error are as follows:

'4: The court erred in holding that plaintiff could keep his deed in his pocket for near twenty years and then recover.

'5: The court erred in rendering judgment in favor of plaintiff.

'6. The court erred in finding that plaintiff's claim was a stale demand.

'7. The court erred in overruling the defendant's motion for a new trial.

'These assignments do not distinctly specify any grounds of error as required by Art. 1033 of the revised statutes and by rules 24, 25 and 26 for the government of this court. It is useless to encumber the record with such matter and the practice of doing so should be abandoned.'

Am. Legion of Honor v. Rowell, 78 Tex. 677, where it is said: "There is, however, another brief for appellant on file which contains an assignment of error which was filed in time. So much of it as is copied in the brief reads as follows:

'The court erred in rendering judgment for plaintiff upon the evidence adduced upon the trial, because the judgment is contrary to law and not supported by the evidence.'

Such an assignment is too general to admit of consideration, as has been repeatedly decided by this court.'

SECOND COUNTER PROPOSITION, FIRST ASSIGNMENT OF ERROR,

If said assignment is considered.

The court having found that defendant's well was upon land owned by it in fee-simple. and was dug to

supply water for the use of its locomotives and machine shops operated by it in the city of Denison, in which said land is situated, and without any intention of injuring the property of the plaintiff or knowledge that it would have such effect, and that the water in said well was supplied by *percolation* through the soil and did not come from any defined stream, no other judgment than the one rendered should have been rendered by the court below. The law is that the owner of land can use all the water he can obtain thereon by digging wells which are supplied by water percolating through the soil, provided said wells are not dug for the purpose of maliciously injuring adjoining proprietors, and this though such adjoining proprietors may be entirely deprived of water which otherwise would have percolated into their own land.

STATEMENT.

For the court's findings in full see statement to appellant's first assignment on page 2 of his brief.

AUTHORITIES.

Gould on Waters, 3d ed. §280;
 Miller v. Blackrock Springs Im. Co., 40 S. E. 27;
 27 A. & E. Ency. Law, 1st ed., 424, 425;
 Hougan v. Ry. Co., 35 Iowa, 558;
 Acton v. Blundell, 12 M. & W. 324;
 Burrows v. Saterlee, 67 Iowa;
 Hanson v. McCue, 42 Cal. 303;
 Hale v. McLee, 53 Cal. 578;

Sadler v. Lee, 66 Ga;
 Lybe's Appeal, 106 Pa. St. 626-634;
 Collins v. Gas Co., 131 Pa. St. 156;
 Metcalf v. Nelson, 59 Am. St. 756 and note.
 Southern Pacific v. Defour, 19 L. R. A. 92 and
 full note.

ARGUMENT.

The question presented by the court's findings of facts and law is the extent to which the owner of land can appropriate to his own use the water which percolates through his soil and accumulates in a well dug by him thereon. Can the owner of the land use such water for the purpose of supplying machinery owned by him, or is he restricted to household and domestic purposes? The rule on this subject seems so well settled that we have only attempted to cite a few of the very many cases bearing thereon.

Mr. Gould in his *Work on Waters* (3 ed.) published in 1900, §280, says: "Water percolating through the ground beneath the surface, either without a definite channel, or in courses which are unknown and unascertainable, belongs to the realty in which it is found. The rule that a man may freely and absolutely use his property, so long as he does not directly invade that of his neighbor's, or consequentially injure his clearly defined rights, is applicable to the interruption of subsurface supplies of water or of a stream, and the damage resulting therefrom is not the subject of legal re-

dress. The land-owner may, therefore, make a ditch to drain his land, or dig a well thereon, or open and work a quarry upon it, or otherwise change its natural condition, although by so doing he interrupts the underground sources of a spring or well on his neighbor's land. The only remedy for the latter is to sink his own well deeper. He may take the water which would otherwise pass off by natural percolation into the adjoining land, or draw off the water which may come by natural percolation from that land, and no adverse right to prevent the exercise of this privilege can be acquired by prescription."

A large number of cases are cited in the note which follows to sustain the text. In fact fewer cases can be found on the other side of this question than upon almost any other legal proposition announced in the law books.

The case of *Miller v. Blackrock Springs Improvement Company*, cited above, is such a full discussion of this question and such a complete and convincing review of the authorities bearing thereon, that we can do but little more than ask its careful consideration at the hands of the court.

We also invite the especial attention of the court to the case of *Hougan v. Railway*, 35 Iowa 558, on account of the very great similarity of the facts therein involved to those here in question. In that case it is distinctly held that where a railroad company holds a

deed conveying "for all purposes connected with the construction, use and operation of the said railway," the right-of-way over certain lands, this includes the right to dig a well on the right-of-way in order to procure water for the railroad company's own use in connection with the operation of its railroad. The case at bar is much stronger than the one decided by that court, in that the appellee is owner in *fee-simple* of the land upon which it dug the well in question.

We are aware that cases can be found in which a person holding an easement acquired under the terms of a statute has been held not entitled to use percolating waters to the same extent as the owner of the fee would have the right to use them. Such a case is *United States v. Alexander*, 148 U. S. 186, but in that case the general rule is recognized in the following language:

"Finally, an argument in favor of the government is based upon the finding of the court below, that it does not appear that the well was supplied 'by a distinct vein of water running into it;' and the leading case of *Acton v. Blundell*, 12 M. & W. 324, and cognate cases are cited.

The doctrine of those cases substantially is, that the owner of land may dig therein *and apply all that is there found to his own purposes at his free will and pleasure*; and that if, in the exercise of such right, he intercepts or drains off the water collected from the un-

derground springs in his neighbor's well, this inconvenience to his neighbor falls within the description of *damnum absque injuria*, which cannot become the ground of an action.

We recognize this as sound doctrine in the ordinary case of a question between adjoining owners of land. But in a case like the present, where the injury complained of is inflicted by the construction of a public work under authority of a statute, over land upon which the public authority had acquired a right-of-way only, and where the statute itself provides a remedy for such injury, the law has been held to be otherwise in cases whose reasoning demands our assent."

Then follows a review of a number of cases sometimes relied upon in the vain attempt to tear down the long established rule upon this subject.

It will be noted that the cases cited by appellant to sustain his contention themselves concede that they are opposed to the great weight of authority on this subject, and appellant's counsel, in his brief, in effect, makes a like concession.

The case of *Bassett v. Salisbury* principally relied upon by appellant seems to us to have but little application. The question involved was the right of the defendant to maintain a dam on his land so as to obstruct the natural drainage from the plaintiff's land above the dam to his injury, which seems to us a very different question from the right of the owner of land to appro-

priate to his own use the water he finds therein. The overwhelming weight of authority holds that he has as much right to appropriate this water as he has the sand, gravel or soil itself. It is true, language is used by the judge delivering the opinion in that case which could be applied to some extent to the facts herein involved, but the total failure to cite authority to sustain such expressions is at least significant, as is the following quotation from the opinion:

“We are aware that since the case of *Acton v. Blundell*, 12 M. & W. 324, the weight of authority elsewhere is against the view of the law which we have adopted. A number of cases have been cited by the defendant’s counsel and more may now be found in which the reasoning conflicts with the conclusion at which we have arrived, but with the highest respect for the tribunals that have pronounced these decisions, we are compelled to differ from the views they have expressed.”

The New Hampshire case of *Swett v. Cutts*, also greatly relied upon by appellant, will also be found to have but little application. We merely copy the syllabus: “A land-owner may in the reasonable use of his own land lawfully prevent the flow of surface water on to his premises from the adjacent higher land of another, although such adjacent land is thereby injured, and the fact that such water has been wont to flow upon the inferior land for over twenty years, will not amount to a prescription.”

It will be noted that this case, like the previous one referred to, did not involve the question as to what use the owner of the land could make of the water found percolating through his soil, but only involved the extent to which he could prevent the water from his neighbor's land coming upon his premises, and his right to do this was sustained.

The case of *Forbell v. City of New York*, 164 N. Y. 522, relied upon by defendant is more in point in his favor, but that case is likewise unsupported by authority and only involves the right of one proprietor to intentionally draw from his neighbor's land water for the purpose of *selling it to others*. While we do not concede that this case can be sustained by authority even as applied to the facts upon which it was rendered, yet it does not go far enough to sustain the plaintiff's position in the case at bar.

To decide in appellant's favor it will be necessary to establish the law to be: That the owner of land cannot obtain water from his well thereon to run his gin or traction engine, if it interferes with the supply of the adjoining proprietor. If the owner of land can use the water thereon to supply one engine he can use it to supply two or more; and in like manner, if he can use it to operate one gin or mill, he can use it to operate two or more. The question is: Does percolating water belong to the owner of the land, or does it belong to the adjoining proprietor from whose land the water comes? If the

owner of land desires to retain the water which falls thereon for his own use he must adopt the necessary means to prevent its escape. He cannot permit it to percolate through his neighbor's soil and then claim damages of such neighbor for using it after it has left his land. The authorities and reasoning to this effect are so convincing that we cannot understand how the question can again be presented for consideration.

FIRST COUNTER PROPOSITION, SECOND ASSIGNMENT OF ERROR.

An assignment of error in this language, "The court erred in overruling plaintiff's motion for a new trial" is too general, and appellee objects to its consideration for that reason.

AUTHORITIES.

Falls L. & C. Co. v. Chisholm, 71 Tex. 528, cited above.

Cooper v. Lee, 21 S. W. 998.

McCowan v. Terrell, 29 S. W. 484.

ARGUMENT.

It will be noted that one of the assignments in Falls L. & C. Co. v. Chisholm, referred to above, is in almost the exact language of appellant's assignment here objected to. In the other cases cited there was more than one ground in the motion for new trial, and they might be distinguished on that ground. In this case there is but one ground set up in plaintiff's motion for a new trial, which is as follows: "That the court

erred in its finding of fact, and conclusion from the facts, that defendant was not liable, because said finding was contrary to the law and contrary to the evidence ”

A citation of authority is not necessary to show that this in like manner is too general to admit of consideration, could it be substituted for the assignment itself, as appellant attempts to have it done. See authorities cited to first counter proposition, first assignment. Also see the great number of cases cited in the 1st volume of Batts' Buckler's Civil Digest, page 180, to sustain the statement that an assignment that “The court erred in overruling motion for a new trial” is too general. Also that an assignment that “The judgment is contrary to the law and evidence” is too general.

FIRST COUNTER PROPOSITION, THIRD ASSIGNMENT OF ERROR.

An assignment in this language, “That the court erred in failing to render judgment for plaintiff upon said facts,” is too general, and appellee objects to its consideration for that reason.

AUTHORITIES.

Same as to first counter propositions, first and second assignments.

All of which is respectfully submitted with the request that the judgment of the court below in all things be affirmed.

BAKER, BOTTS, BAKER & LOVETT,
HEAD & DILLARD,
ATTORNEYS FOR APPELLEE, HOUSTON & TEXAS CENTRAL RAILROAD CO.

With app No 4050

No. 4018.

W. A. East,

Appellant,

vs.

Houston & Texas Central R. R. Co

FILED IN *Appellee.*
SUPREME COURT

JAN 16 1904

J. J. Connors
Clerk.

OPINION.

FILED IN
Court of Civil Appeals.

NOV 28 1903

Geo. W. Blair,
Clerk 5th. District.

P

By BOOKHOUT, Associate Justice.

12-29-1903

12-1

W. A. East, Appellant, I
No. 4018. vs. I
Houston & Texas Central Railroad Co. I Appeal from Grayson County.
Appellee. I

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This is a suit by W. A. East against the Houston and Texas Central Railroad Company for damages growing out of the alleged destruction by defendant of plaintiff's well. The case was tried before the Court without a jury and resulted in a judgment for defendant and plaintiff appealed. The trial court filed conclusions of fact which in the absence of a statement of facts are to be taken as the facts of the case. Said conclusions are as follows:

"1st. The defendant, the Houston and Texas Central Railroad Company, was the owner in fee simple of six (6) lots in the City of Denison, Grayson County, Texas, at the time mentioned in plaintiff's petition, and dug thereon a well twenty (20) feet in diameter and sixty-six (66) feet deep. It put therein a steam pump of sufficient strength to supply a three inch pipe, and with the exception of three or four days since August, 1901, has daily taken from said well by means of said pump about twenty-five thousand (25,000) gallons of water. This water was taken from said well and used by it in its locomotives and machine shops operated by it in the City of Denison, in which said land is situated. Said well is supplied entirely by water percolating through its soil and that of adjacent lands and not by any underground or other stream of any kind. Before digging said well, defendant made an examination of its surroundings, including the well of the plaintiff, and made test holes with a view of obtaining the desired supply of fifty thousand (50,000) gallons of water per day. Plaintiff was present when such examinations were being made and consented for his well to be examined by defendant, and had no further conversation or communication with the defendant upon the subject. From the examination made by it, defendant became satisfied that it could procure the desired supply of water upon the land as aforesaid, and dug said well for the purpose of obtaining the same for the uses hereinbefore set out. The wells were dug without any intention on the part of defendant of injuring the property of either of the plaintiffs and did not know that such would be the ef-

effect. The water percolated into defendant's well at different depths, some of it coming into the bottom thereof. The well of plaintiff is about five feet in diameter and about thirty-three feet in depth; is on land owned by plaintiff in fee simple and is used as a homestead by plaintiff, was dug prior to defendant's well and had always been used by plaintiff, up to the time defendant's well was dug for household purposes, and prior to that time, had always supplied an adequate supply of water for such uses; that this well has been dried up by the digging and use to which defendant has put its well. That the damage that plaintiff and his land has sustained, by the drying up of his well, is the sum of two hundred and six dollars and twenty-five cents (206.25) including both past and possessive injury to himself and the lots described in his petition.

2nd. I further find that the use to which defendant puts its well was not a reasonable use of their property as land, but was an artificial use of their property, and if the doctrine of reasonable use, as applicable to defined streams to such cases, this was unreasonable."

In *Bassett v. Salisbury Mfg. Co.* 43 N. H. 569; 82 Am. Dec. 179, it is held in effect that the right of a land owner to draw from his land all water found percolating underground, was not absolute, but qualified and limited to the amount necessary for the reasonable use of the land, as land. That the rights of adjoining landowners are correlative and from the necessity of the case the rights of each is only to a reasonable use. The Court goes into an exhaustive discussion of the question and in the very able opinion delivered, arrives at the conclusion above stated. The rule as announced therein was approved in the later case of *Swett v. Cutts*, 50 N. H. 459; 9 Am. Rep. 276.

In a late case decided by the Court of Appeals of New York in which the plaintiff was a lessee of certain farming lands situated near Spring Creek, within the County of Kings. He used a portion of the lands in question for the purpose of growing celery and water cresses. The City of Brooklyn constructed a pumping station in the borough of Queens City of New York on the conduit line near the Kings County boundary line and early in 1885, and in 1894 sunk additional wells and made an additional pumping station. The effect of pumping at these stations was to lower the underground water table on this best held and it is held that it was from the waters percolating land, and thus made it unfit for the cultivation of celery or water cresses,

and the crops failed for many years prior to the commencement of the action, in 1898." The Court in treating of the right of the land owner to the use of underground percolating water, in that case, uses the following language:

"In the cases in which the lawfulness of interference with percolating waters has been upheld, either the reasonableness of the acts resulting in the interference, or the unreasonableness of imposing an unnecessary restriction upon the owner's dominion of his own land, has been recognized. In the absence of contract or enactment, whatever it is reasonable for the owner to do with his sub-surface water, regard being had to the definite rights of others, he may do. He may make the most of it that he reasonably can. It is not unreasonable, so far as it is now apparent to us, that he should dig wells and take therefrom all the water that he needs in order to the fullest enjoyment and usefulness of his land as land, either for purposes of pleasure, abode, productiveness of soil, trade, manufacture, or for whatever else the land as land may serve. He may consume it, but must not discharge it to the injury of others. But to fit it up with wells and pumps of such pervasive and potential reach that from their base the defendant can tap the water stored in the plaintiff's land, and in all the region thereabout, and lead it to his own land, and by merchandising it prevent its return, is, however unreasonable it may appear to the defendant and its customers, unreasonable as to the plaintiff and the others whose lands are thus clandestinely tapped, and their value impaired." Forbell v. New York, 164 N. Y. 522; 51 L. R. A. 696.

The Court treated the act of the city in extracting the percolating waters from the land of plaintiff in the manner and by

use of the appliances adopted by it, as a trespass. It further held that a trespass may be produced by the employment of such material, agencies or instruments as become effective by the co-operation of the forces of nature. See also Smith vs. Brooklyn, 160 N. Y. 357; 45 EL R. A. 664; 27 Am. & Eng. Enc. Law, p. 429, 1st. ed.

In the case at bar the trial court found that the defendant was not making a reasonable use of its property as land, but that the use was an artificial one. Before defendant dug its well it made an examination of its surroundings, examined plaintiff's well, dug test holes and calculated that it could, from the waters percolating

underground its land and the surrounding land, including plaintiff's cause to be extracted therefrom as much as 50,000 gallons per day. To accomplish this purpose it dug its well twenty feet in diameter and sixty-six feet deep and fitted the same with a steam pump and other suitable appliances for forcing that amount of water therefrom. It has, since August 1901, with the exception of three or four days, forced 25,000 gallons of water daily from said well, which it has used in operating its locomotives and machine shops in the City of Denison. The plaintiff's well was thirty three feet deep and five feet in diameter and was on his own land, occupied by him as his resident homestead. It was dug prior to that of defendant and had always been used by plaintiff for supplying water for his household purposes, for which purpose it furnished an adequate supply, until the defendant dug and installed its well and began pumping therefrom, since which time and as a result thereof, the plaintiff's well has dried up. The trial Court found that the plaintiff and his land have sustained damage by these acts of defendant in the sum of \$206.25. We are of the opinion that under the facts the plaintiff was entitled to recover this sum.

It is true that in the case of *Acton v. Blundell*, 12 Mees. & Wels. 324, the doctrine was laid down in England that "If a man digs a well on his own field and thereby drains his neighbors he may do so unless he does it maliciously." It is further true that this rule has been adopted in some of the American States, Gould on Waters, 4th. ed., Sec. 280; *Miller v. Blackrock Springs Imp. Co.*, 40 S. E. 27. It is by reason of the rule laid down in *Acton v. Blundell* that the appellee claims immunity from liability in this case. To apply that rule under the facts here shown would shock our sense of justice.

So far as we can ascertain the question has not been passed upon by any of the appellate courts of this State. Believing as we do, that the rule adopted by the Court of Appeals of New Hampshire and followed by the Court of Appeals of New York, is just, and sustained by reason we ~~therefore~~ hold in accordance therewith

We conclude that the judgment of the Trial Court should be reversed and here rendered for appellant for \$206.25, the amount of damage sustained by plaintiff, and his land as shown by the facts.

Reversed and rendered.

Booth
Associate Justice.

Delivered Nov. 28, 1907.

With app No 4050
3464
No 4018

W. A. East

vs.

H. & T. C. R. R. Co.

Motion for Rehearing.

FILED IN
SUPREME COURT

JAN 16 1904

J. J. Conroy
Clerk.

FILED IN
Court of Civil Appeals.
DEC 10 1903
Geo. W. Blair,
Clerk 5th District.

P. 12 10. 03. Copy # 2 ²⁰

W. A. EAST, APPELLANT,

vs

HOUSTON & TEXAS CENTRAL RAILROAD COMPANY, APPELLEE.

MOTION FOR REHEARING.

TO THE HONORABLE COURT OF CIVIL APPEALS FOR THE FIFTH SUPREME JUDICIAL DISTRICT OF TEXAS:--

Now comes appellee, Houston & Texas Central Railroad Company, and shows to the court that it is sole appellee herein and is represented by Messrs. Head & Dillard, a firm of attorneys residing in Grayson County, Texas. That the sole appellant herein is W. A. East, a resident citizen of Grayson County, Texas, represented by Messrs. Mosely & Eppstein, who reside at Denison, Grayson County, Texas.

Appellee says there was error in the action of the court in reversing and rendering the judgment of the lower court herein and it prays the court to grant it a rehearing of this cause on account of these errors and it says there is error in the following particulars:

FIRST- The court erred in considering the first assignment of error because it was so vague and general as not to comply with the rules and so vague and general that it ought not have been considered.

SECOND- The court erred in considering the second assignment of error because it was so vague and general as not to comply with the rules and so vague and general that it ought not to have been considered.

THIRD- The court erred in considering the third assignment of error because it was so vague and general as not to comply with the rules and so vague and general that it ought not to have been considered.

FOURTH: The court erred in sustaining the first assignment of error and the propositions made thereunder, which assignment and propositions were as follows:

"FIRST ASSIGNMENT OF ERROR.

The court erred in its conclusion of law that under the facts the defendant was not liable.

FIRST PROPOSITION.

The defendant had the right to use its land in any way in which it saw fit, subject only to the qualification that it must so use it as not to injure the property of another.

SECOND PROPOSITION.

Adjoining proprietors of land have correlative rights in all underground percolating waters, and though each of them may use the water under his own land, his right to do so is subject to the rule that his use of same must be reasonable, under all of the circumstances, and if in the unreasonable use of such percolating waters he destroys his neighbor's supply, he is liable in damages.

THIRD PROPOSITION.

The defendant had the right to dig wells upon its land and take therefrom all the water that it needed in order to obtain the fullest enjoyment and usefulness of its land as land, either for purposes of pleasure, abode, productiveness of soil, trade, manufacture or for whatever else the land might serve, but it could not unreasonably use it to the injury of others.

FOURTH PROPOSITION.

Plaintiff has the right to prevent the unreasonable use by defendant of its land, when such unreasonable use abstracts the natural and usual supply of water to which it is entitled from his land, provided defendant's use of its property is not such as the said land could be reasonably used for as land. And a fortiori can plaintiff recover damages for such injury.

FIFTH PROPOSITION.

Defendant having destroyed plaintiff's well by extracting therefrom its natural supply of water, by digging wells upon its own land and extracting therefrom an unreasonable quantity of water, more than its land as land was entitled to, which said unreasonable use caused the injury complained of by plaintiff, is liable to the plaintiff for the amount of his damages, to-wit: \$206.25."

Because it was found by the lower court and this court that the wells were dug without any intention on the part of defendant of injuring the property of plaintiff. That the only purpose of digging it was for a legitimate use of defendant in obtaining water in its locomotive and machine shops in the City of Denison. That the wells were dug on land owned in fee simple by defendant, that it had no knowledge that in digging its well it would drain plaintiff's well and did not intend to drain it and that the waters which ran into defendant's well were only percolating waters, hence the finding of this court should have been that under these circumstances there was no liability on the part of defendant.

FIFTH- The court erred in sustaining appellant's second assignment of error which is as follows: "The court erred in overruling plaintiff's notion for a new trial." ^{And} The propositions made thereunder, which are the same as the propositions made under the first assignment above shown, for the following reasons: Because it was found by the lower court and this court that the wells were dug without any intention on the part of defendant of injuring the property of plaintiff. That the only purpose of digging it was for a legitimate use of defendant in obtaining water in its locomotive and machine shops in the City of Denison. That the wells were

dug on land owned in fee simple by defendant, that it had no knowledge that in digging its well it would drain plaintiff's well and did not intend to drain it and that the waters which ran into defendant's well were only percolating waters, hence the finding of this court should have been that under these circumstances there was no liability on the part of defendant.

SIXTH- The court erred in sustaining the third assignment of error which is as follows: "The court erred in failing to render judgment for plaintiff upon said facts," and the propositions made thereunder which are the same as the propositions made under the first assignment above shown because it was found by the lower court and this court that the wells were dug without any intention on the part of defendant of injuring the property of plaintiff. That the only purpose of digging it was for a legitimate use of defendant in obtaining water in its locomotive and machine shops in the City of Denison. That the wells were dug on land owned in fee simple by defendant, that it had no knowledge that in digging its well it would drain plaintiff's well and did not intend to drain it and that the waters which ran into defendant's well were only percolating waters, hence the finding of this court should have been that under these circumstances there was no liability on the part of defendant.

SEVENTH- The court erred in sustaining the first additional proposition under the first assignment of error which is as follows: "The underground percolating waters in plaintiff's land belonged to him and the abstraction of them by defendant is unlawful," because there is no ownership in percolating waters by the person through whose lands they percolate and no right save the right to use them while they are on his land, and if from any cause they shall percolate upon the lands of another and be used by such other he will not be liable to the owner from whose lands the water percolated, even though they would not so have left the lands of this owner but for acts of the person using them not maliciously done.

EIGHTH- The court erred in sustaining the second additional proposition under the first assignment of error as follows: "Such underground waters is as much the property of the owner of the land as the ores, rocks, etc., beneath the surface." The reasons why it was error to sustain this proposition are shown in the last ground of this motion.

NINTH- The court erred in sustaining the third additional proposition under the first assignment of error, which is in these words: "Defendant in this case is a trespasser. Actual entry upon the land is not necessary, if damage be done to the land," because under the findings of the court above set forth defendant was in no sense a trespasser upon plaintiff's land or against plaintiff, but only in the lawful use of his own land used such percolating waters as under the law he had the right to use.

TENTH- The court erred in reversing and rendering the judgment of the court below because the court below, having found that defendant's well was upon land owned it in fee simple and was dug to supply water for the use of its locomotive and machine shops, operated by it in the City of Denison in which said land was injured and without any intention of injuring the property of plaintiff or knowledge that it would have such effect and that the water in said well was supplied by percolation through the soil, judgment should have been as it was rendered in the court below for defendant. The law is that the owner of land can use all the water he can obtain thereon by digging wells which are supplied by water percolating through the soil, provided said wells are not dug for the purpose of maliciously injuring adjoining proprietors, and this though such adjoining proprietors may be entirely deprived of water which otherwise would have percolated into their own land, and the law so standing, judgment should have been rendered for defendant as in the court below.

We respectfully submit the motion and request that a rehearing be granted and the judgment affirmed.

Baker Botts Baker & Lovett
Head & Dillard
Attorneys for Appellee, Houston & Texas
Central Railroad Company.

App No 4050.

FILED IN
SUPREME COURT
JAN 21 1904
J. G. ...

Houston & Texas Central Railroad Co., Plaintiff in Error,

vs.

W. A. EAST, Defendant in Error.

APPLICATION FOR WRIT OF ERROR.

BAKER, BOTTS, BAKER & LOVETT,
HEAD & DILLARD,
ATTORNEYS FOR PETITIONER, HOUSTON & TEXAS
CENTRAL RAILROAD CO.

GRANTED

SHERMAN PT'G CO.

7/13/04

FILED IN
Court of Civil Appeals
JAN 21 1904
Geo. W. Blair,
Clerk of the District

GRANTED

Houston & Texas Central Railroad Co., Plaintiff in Error,

vs.

W. A. EAST, Defendant in Error.

APPLICATION FOR WRIT OF ERROR.

To the Honorable Supreme Court of the State of Texas:

Your petitioner, the Houston & Texas Central Railroad Company, respectfully shows that this is a suit instituted in the District Court of Grayson County, Texas, by W. A. East to recover of petitioner damages in the sum of \$1100.00 for injury to a well on his property in the city of Denison, Grayson county, Texas. The trial in the District Court resulted in a judgment in favor of the defendant, but on appeal to the Honorable Court of Civil Appeals for the Fifth Supreme Judicial District the judgment of the lower court was reversed and a judgment was rendered in that court in favor of the said East for the sum of \$206.25, and in so reversing the judgment of the lower court and rendering the judgment aforesaid, the Honorable Court of Civil Appeals for the Fifth Supreme District of Texas committed numerous errors as follows:

First. The Court of Civil Appeals erred in con-

sidering the first assignment of error, because it was so vague and general as not to comply with the rules and so vague and general that it ought not to have been considered.

Second. The Court of Civil Appeals erred in considering the second assignment of error, because it was so vague and general as not to comply with the rules and so vague and general that it ought not to have been considered.

Third. The Court of Civil Appeals erred in considering the third assignment of error because it was so vague and general as not to comply with the rules and so vague and general that it ought not to have been considered.

Fourth. The Court of Civil Appeals erred in sustaining the first assignment of error and the propositions made thereunder, which assignment and propositions were as follows:

FIRST ASSIGNMENT OF ERROR.

“The court erred in its conclusion of law that under the facts the defendant was not liable.

FIRST PROPOSITION.

The defendant had the right to use its land in any way in which it saw fit, subject only to the qualification that it must so use it as not to injure the property of another.

SECOND PROPOSITION.

Adjoining proprietors of land have correlative rights in all underground percolating waters, and though each

of them may use the water under his own land, his right to do so is subject to the rule that his use of same must be reasonable, under all of the circumstances, and if in the unreasonable use of such percolating waters he destroys his neighbor's supply, he is liable in damages.

THIRD PROPOSITION.

The defendant had the right to dig a well upon its land and take therefrom all the water that it needed in order to obtain the fullest enjoyment and usefulness of its land as land, either for purposes of pleasure, abode, productiveness of soil, trade, manufacture, or for whatever else the land might serve, but it could not unreasonably use it to the injury of others.

FOURTH PROPOSITION.

Plaintiff has the right to prevent the unreasonable use by defendant of its land, when such unreasonable use abstracts the natural and usual supply of water to which it is entitled from his land, provided defendant's use of its property is not such as the said land could be reasonably used for as land. And *a fortiori* can plaintiff recover damages for such injury.

FIFTH PROPOSITION.

Defendant having destroyed plaintiff's well by extracting therefrom its natural supply of water, by digging wells upon its own land and extracting therefrom an unreasonable quantity of water, more than its land as land was entitled to, which said unreasonable use caused the injury complained of by plaintiff, is liable to the plaintiff for the amount of his damages, to-wit: \$206.25."

Because it was found by the lower court and the

Court of Civil Appeals that the wells were dug without any intention on the part of defendant of injuring the property of plaintiff. That the only purpose of digging it was for a legitimate use of defendant in obtaining water in its locomotive and machine shops in the city of Denison. That the wells were dug on land owned in fee simple by defendant, that it had no knowledge that in digging its well it would drain plaintiff's well, and did not intend to drain it, and that the waters which ran into defendant's well were only percolating waters, hence the finding of the Court of Civil Appeals should have been that under these circumstances there was no liability on the part of defendant.

Fifth. The Court of Civil Appeals erred in sustaining appellant's second assignment of error, which is as follows: "The court erred in overruling plaintiff's motion for a new trial." And the propositions made thereunder, which are the same as the propositions made under the first assignment above shown, for the following reasons: Because it was found by the lower court and the Court of Civil Appeals, that the wells were dug without any intention on the part of the defendant of injuring the property of plaintiff. That the only purpose of digging it was for a legitimate use of defendant in obtaining water in its locomotive and machine shops in the city of Denison. That the wells were dug on land owned in fee simple by defendant, that it had

no knowledge that in digging its well it would drain plaintiff's well and did not intend to drain it, and that the waters which ran into defendant's well were only percolating waters, hence the finding of the Court of Civil Appeals should have been that under these circumstances there was no liability on the part of defendant.

Seventh. The Court of Civil Appeals erred in sustaining the first additional proposition under the first assignment of error, which is as follows: "The underground percolating waters in plaintiff's land belonged to him and the abstraction of them by defendant is unlawful," because there is no ownership in percolating waters by the person through whose lands they percolate and no right save the right to use them while they are on his land, and if from any cause they shall percolate upon the lands of another and be used by such other, he will not be liable to the owner from whose lands the water percolated, even though they would not so have left the lands of this owner but for acts of the person using them not maliciously done.

Eighth. The Court of Civil Appeals erred in sustaining the second additional proposition under the first assignment of error as follows: "Such underground waters are as much the property of the owner of the land as the ores, rocks, etc., beneath the surface." The reasons why it was error to sustain this proposition are shown in the last ground of this motion.

Ninth. The Court of Civil Appeals erred in sustaining the third additional proposition under the first assignment of error, which is in these words: "Defendant in this case is a trespasser. Actual entry upon the land is not necessary, if damage be done to the land," because under the findings of the court, above set forth, defendant was in no sense a trespasser upon plaintiff's land or against plaintiff, but only in the lawful use of his own land used such percolating waters as under the law he had the right to use.

Tenth. The Court of Civil Appeals erred in reversing and rendering the judgment of the court below, because the court below, having found that defendant's well was upon the land owned by it in fee simple and was dug to supply water for the use of its locomotive and machine shops, operated by it in the city of Denison in which said land was injured, and without any intention of injuring the property of plaintiff or knowledge that it would have such effect and that the water in said well was supplied by percolation through the soil, judgment should have been as it was rendered in the court below, for defendant. The law is that the owner of land can use all the water he can obtain thereon by digging wells which are supplied by water percolating through the soil; provided said wells are not dug for the purpose of maliciously injuring adjoining proprietors, and this though such adjoining proprietors may be entirely deprived of water which otherwise would have percolated

into their own land, and the law so standing, judgment should have been rendered for defendant as in the court below.

Eleventh. The Court of Civil Appeals erred in holding that plaintiff in error would be liable to defendant in error for drying up his well, without any evidence or finding that the water used by plaintiff in error, or any part of it, had ever reached defendant in error's premises or was drawn or taken therefrom by plaintiff in error.

Wherefore your petitioner, the Houston & Texas Central Railroad Company, prays that it be granted by this Court a writ of error herein, and that the judgment of the Court of Civil Appeals be reversed and that of the trial court in all things be affirmed.

Baker, Botts, Baker & Lovett
BAKER, BOTTS, BAKER & LOVETT,
Head & Dillard
HEAD & DILLARD,

ATTORNEYS FOR PETITIONER, HOUSTON & TEXAS
CENTRAL RAILROAD CO.

ARGUMENT.

In presenting this case to the Honorable Court of Civil Appeals in our original brief we confidently relied upon the proposition that the overwhelming weight of the authorities established the law to be that the owner of land has the right to use for his own purposes the subteranean waters found thereon which had percolated through the soil, as distinguished from running

in a defined stream, and we still confidently rely upon the soundness of that position, and insist that the action of the Court of Civil Appeals, in effect, ignoring all distinction between percolating waters and waters running in defined streams, is without justification either in reason or authority.

To sustain our views upon the main question involved we feel that we can add nothing to what is said in the authorities cited in our brief to the Court of Civil Appeals, and can only pray this court to carefully examine them before passing upon this application for writ of error.

We wish to especially direct the attention of the court to the able review of the authorities contained in the recent case of *Miller v. Blackrock Springs Imp. Co.*, 40 S. E. 27, referred to with disapproval by the Honorable Court of Civil Appeals.

We also desire to direct the attention of the court to the case of *Hougan v. Ry. Co.*, 35 Iowa 558, on account of its application of the views here contended for to facts strikingly like those involved in this case. It will be noted that the Iowa court in the case referred, holds that a railway company has the right to use the percolating water found on its land for the purpose of supplying its engines even though a well upon the land of an adjoining proprietor be injured thereby.

It will also be noted that the New York case relied on by the Court of Civil Appeals recognizes the right

of the owner of the land to use the water thereon for *manufacturing* purposes, which would clearly include defendant's machine shops.

We also desire to call the attention of the court to the fact that the text writers, so far as we are aware, without exception are opposed to the views expressed by our Court of Civil Appeals.

We especially invite an examination of the latest edition of Gould on Waters, cited in our brief, and to 2 Lewis on Em. Dom. §584, where the Iowa case is cited with approval. Also see 27 A. & E. Ency. Law, 1st ed. 424-5.

We believe if this court will carefully examine the authorities here referred to it will conclude that the New York case so much relied upon by the Court of Civil Appeals should not be followed even if the facts here involved be found to be identical with those there considered. To do so will certainly be to array our State on the side of a very small minority upon a question that has been much considered both in this country and in England.

But the facts of this case are not identical with those involved in the New York case. In that case the water company was, by the use of powerful machinery, drawing the water *from the land of an adjoining owner* and using it, not for its own purposes, but to sell to others, and the court was of opinion that this might be likened to a trespass. In the case at bar there is noth-

ing in the findings of the trial court to sustain the inference of the Court of Civil Appeals that any of the water used by the defendant was ever upon, or came from, the land of the plaintiff. It does appear that the use of the water from defendant's well has had the effect to dry up the well of plaintiff but this could be produced as well, yea, more naturally, by appropriating the water before it reached plaintiff's land than by drawing it through the soil out of his land. It could not, however, by any stretch of imagination be termed a *trespass* upon plaintiff's land for the defendant to use the percolating water found on its own land which had never been on that of the plaintiff.

It will, therefore, be observed that in order to sustain the decision of the Court of Civil Appeals it will be necessary to go farther than the New York court, and hold that the owner has no right to interfere with the percolation of water through his land to that of his neighbor. This will in effect be to hold that each proprietor has an easement in the land of his neighbor for the purpose of retaining the water therein until it percolates through it to his own. This would be to eliminate all distinction between streams and subteranean percolating waters, which the Court of Civil Appeals in effect does.

Let us again impress upon the court that there is no finding or evidence that defendant has ever taken

any water *from* plaintiff's well or land so that no element of a trespass exists in this case.

We also desire to direct the attention of the court to the fact that the Court of Civil Appeals holds the defendant liable for the entire value of plaintiff's well without regard to the extent to which it would have been affected by what the court might consider a reasonable use of water by defendant. Certainly it will not be contended that the plaintiff is entitled to all the water in defendant's land, and even under the views entertained by the Court of Civil Appeals, in order to entitle plaintiff to a judgment for the *full* value of his well, a distinct finding that it would not have been injured to any extent by a reasonable use of water by defendant, would be necessary.

All of which is respectfully submitted.

BAKER, BOTTS, BAKER & LOVETT,
HEAD & DILLARD,
ATTORNEYS FOR PETITIONER, HOUSTON & TEXAS
CENTRAL RAILROAD CO.

A P P L I C A T I O N .

NO 4050 FIFTH DISTRICT.

W . A . E A S T. Appellant.

VS.

HOUSTON & TEXAS CENTRAL R'Y CO
Appellee.

FROM GRAYSON COUNTY.

Writ of error Cit. iss. May 3. 1904.

Granted. April 28. 1904

FILED IN
SUPREME COURT

JAN 16 1904

Set. *J. J. Conroy*
May. 26. 1904 Clark.

W . A . E A S T .

4018 VS.

HOUSTON & TEXAS CENTRAL R'Y CO. #

From District Court Grayson County.

Saturday November 28th 1903.

Opinion of the court delivered by Mr Bookhout Associate Justice.
This cause came on to be heard on the transcript of the record and the same being inspected, because it is the opinion of this Court that there was error in the Judgment, it is therefore considered, adjudged and ordered that the Judgment of the Court below be reversed and judgment is now here rendered as follows; It is ordered, adjudged and decreed by the Court that Appellant W.A. East do have and recover of Appellee the Houston and Texas Central Railroad Company the sum of Two Hundred and Six and 25/100 Dollars with interest thereon at the rate of 6% per annum from the 22nd, day of December 1902 together with all costs by him in this behalf expended both in the Court below and in this Court, for which execution may issue and this decision be certified below for observance.

W . A . E A S T .

3464
4018 VS.

HOUSTON & TEXAS CENTRAL R'Y CO. #
This day came on to be heard the motion of Appellee for a rehearing of this cause and the same being inspected, it is considered, adjudged and ordered that the said motion be overruled.

Saturday December 19th 1903.
#

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I Geo.W.Blair Clerk of the Court of Civil Appeals in and for the Fifth Supreme Judicial District of Texas, do hereby certify that the foregoing is a true copy of the Judgment and order overruling motion for rehearing in the case of W.A. East Vs. Houston & Texas Central R'y Co, No, 4018 as appear of record in my Office in the Minutes of said Court.

Given under my hand and seal of Office at Dallas Texas,
this 14th day of January A.D. 1904.

Clerk.

N. J. C. R. R. Co

v

W. A. East

Appeal Bond.

Filed in Supreme Court

May 3, 1904

F. J. Connerly
Clerk

By J. J. Jellison
Deputy

THE STATE OF TEXAS,
COUNTY OF GRAYSON.

KNOW ALL MEN BY THESE PRESENTS: That, Whereas,
in a certain cause pending in the District Court of Grayson County, Texas,
styled W.A. East vs. Houston & Texas Central Railroad Company, the plain-
tiff in said cause had judgment rendered against him and in favor of the
defendant railroad company; and

Whereas, said plaintiff, W.A. East, appealed from said judgment to
the Court of Civil Appeals for the Fifth Supreme Judicial District of
Texas, which said Court reversed the said judgment of the trial Court
and rendered judgment in favor of the said W.A. East against the defend-
ant, Houston & Texas Central Railroad Company, for \$206.25; and

Whereas said Houston & Texas Central Railroad Company filed in the
Supreme Court its application for writ of error in said cause to said
Court of Civil Appeals, which said application was on the 28th day of
April, 1904, granted by said Court, upon the filing by the said Applicant
in said Court of a bond in the sum of Two Hundred Dollars, conditioned
to pay the costs of the Supreme Court, the said Court of Civil Appeals
and the District Court, and payable to the adverse party;

NOW, THEREFORE, the said Houston & Texas Central Railroad Company,
as principal, and _____ and _____, as sureties,
acknowledge ourselves bound to pay to the said W.A. East the sum of Two
Hundred (\$200.00) Dollars, conditioned that the said Houston & Texas
Central Railroad Company shall pay all costs of the Supreme Court, the
Court of Civil Appeals and the District Court, and in case the judgment
of the Supreme Court shall be against it, it shall perform its judgment,
sentence or decree, and pay all cash damages as said Court may award
against it.

HOUSTON & TEXAS CENTRAL RAILROAD CO.
By: Head & Dillard, its attorneys:
C. B. DORCHESTER. J. F. HARRISON.

Approved and Filed April 30, 1904. ----- C. S. ARNOLD, Cl'k. D. C.

THE STATE OF TEXAS,
COUNTY OF GRAYSON.

I, C.S. ARNOID, Clerk of the District Court of Grayson
County, Texas, do hereby certify that the above and foregoing is a true
and correct copy of the bond filed in the above cause, as same now appears
on file in my office.

Given under my hand and seal of said Court,
at office in the City of Sherman,
this April 30, 1904.



Clerk of the District Court,
of Grayson County,
Texas.

H. G. L. R. R. Co
~~W.~~
W. A. East.

Appeal Bond.

Filed in Supreme Court
May. 3rd 1904.

F. J. Connerly
Clerk

By J. Allyrick
Deputy

THE STATE OF TEXAS,
COUNTY OF GRAYSON.

KNOW ALL MEN BY THESE PRESENTS: That, Whereas,
in a certain cause pending in the District Court of Grayson County, Texas,
styled W.A. East vs. Houston & Texas Central Railroad Company, the plain-
tiff in said cause had judgment rendered against him and in favor of the
defendant railroad company; and

Whereas, said plaintiff, W.A. East, appealed from said judgment to
the Court of Civil Appeals for the Fifth Supreme Judicial District of
Texas, which said Court reversed the said judgment of the trial Court
and rendered judgment in favor of the said W.A. East against the defen-
dant, Houston & Texas Central Railroad Company, for \$206.25; and

Whereas said Houston & Texas Central Railroad Company filed in the
Supreme Court its application for writ of error in said cause to said
Court of Civil Appeals, which said application was on the 28th day of
April, 1904, granted by said Court, upon the filing by the said Applicant
in said Court of a bond in the sum of Two Hundred Dollars, conditioned
to pay the costs of the Supreme Court, the said Court of Civil Appeals
and the District Court, and payable to the adverse party;

NOW, THEREFORE, the said Houston & Texas Central Railroad Company,
as principal, and _____ and _____, as sureties,
acknowledge ourselves bound to pay to the said W.A. East the sum of Two
Hundred (\$200.00) Dollars, conditioned that the said Houston & Texas
Central Railroad Company shall pay all costs of the Supreme Court, the
Court of Civil Appeals and the District Court.

HOUSTON & TEXAS CENTRAL RAILROAD CO.
By: Head & Dillard, its attorneys.

C. D. DORCHESTER. J. F. HARRISON.

Approved and Filed April 30, 1904. C. S. ARNOLD, Cl'k. D.C.

THE STATE OF TEXAS,
COUNTY OF GRAYSON.

I, C.S. ARNOLD, Clerk of the District Court of Grayson
County, Texas, do hereby certify that the above and foregoing is a true
and correct copy of the bond filed in the above cause, as same now appears
on file in my office.

Given under my hand and seal of said Court,
at office in the City of Sherman,
this April 30, 1904.


Clerk of the District Court,
of Grayson County,
Texas.

No. 4018

CERTIFIED COPY

BILL OF COSTS

—IN THE—

COURT OF CIVIL APPEALS

FILED IN
DALLAS, TEXAS.
SUPREME COURT

MAY 18 1904

W. A. Fitzsimmons
CLERK

VS.

Houston & Texas Central R. Co

FILED IN
SUPREME COURT

18 1904

J. J. Connerly
CLERK

JESSE WILLIAMSON, PRINTER, DALLAS.

CLERK'S OFFICE—Court of Civil Appeals at Dallas.

W.A. East

No. *4018* vs.

Houston Texas Central R. Co.

CERTIFIED COPY
BILL OF COSTS

—IN THE—

Court of Civil Appeals, 5th District.

Filing Record	50	Cost of Transcript	
Docketing Cause	50	Sheriff's Fees <i>Hayson Co.</i>	1 95-
Appearances	1 00	Cost in Supreme Court	
Filing Briefs	80	Clerk Court Civil Appeals	20 05-
Filing and Entering Motion	35		<u>22 00</u>
Orders	2 50		
Certorari			
<i>6</i> Notices	3 00		
Filing Extra Papers	90		
Copy of Judgment, Etc.	1 50		
Oath			
Continuance	20		
Judgment	1 00		
Taxing Costs	50		
Certificates, with Seal			
Mandate			
Recording Opinion	2 60		
Certified Copy of Opinion			
Certified Copy Bill of Costs	1 00		
Precept	1 00		
Execution for Costs			
Recording Return of Execution			
Alias Return <i>Express Chgs.</i>	50		
Pluries and Return			
Certified Copy of Motion	2 20		
TOTAL	<u>20 05-</u>		

I, GEO. W. BLAIR, Clerk of the Court of Civil Appeals, 5th Supreme Judicial District of Texas, at Dallas, hereby certify that the above copy of the Original Bill of Costs is true and correct.

WITNESS MY HAND and seal of said Court, at Dallas, this *5th* day
of *May* A. D. 190*4*

Geo. W. Blair

CLERK.

III. Texas Supreme Court, Austin Texas

5-0-ML

No. _____

In Supreme Court.

Mr. J. L. R. R. Co.

vs.

W. A. East.

CITATION.

Issued *May 3rd* 190 *4*

F. J. Connerly
Clerk Supreme Court.

By *J. J. J. J.*
Deputy.

CERTIFIED COPY.

121

The State of Texas,

To the Sheriff or Any Constable of Grayson County, Greeting;

You are hereby Commanded, by delivering to W. A. East

_____ if found in your County, or to Mosely & Epstein

attorney of record, the accompanying certified copy of this writ, to summons said W. A. East

to be and appear before the Supreme Court of the State of Texas, now in session at Austin, Texas, on Thursday, the 26th day of May 1904, provided this writ shall have been served ten days prior to that time; but if this writ shall not have been so served, then on the first Thursday next ensuing, ten days after such service, pursuant to a writ of error filed in the Clerk's Office of the Court of Civil Appeals for the Fifth Supreme Judicial District, and issued on the 3rd day of May 1904, wherein

Houston & Texas Central Railroad Company is plaintiff in error, and you are defendant in error, to show cause, if any there be, why the judgment rendered against the said plaintiff in error should not be corrected, and why speedy justice should not be done to the parties in that behalf. And of this writ, with your action endorsed thereon, make due return within ten days from the date hereof.

Witness, the Hon. REUBEN R. GAINES, Chief Justice of the Supreme Court of Texas, the 3rd day of May in the year of our Lord one thousand nine hundred and Four.

F. J. Connerly
Clerk.

By Jellyrick
Deputy.

I hereby Certify, that the above is a true and correct copy of the original.

F. J. Connerly
Clerk of the Supreme Court of Texas.

By Jellyrick
Deputy.

Sheriff's Return.

Came to hand on the 4th day of May, A.D. 1904. and executed on the 5th day of May, A.D. 1904. By delivering to W A East the within named defendant in person with a true copy of this writ, said service having been made in Grayson, County, Texas.

W S Russell, Sheriff, Grayson, County, Texas

By J. M. Layne Deputy

Fees one copy \$.75
mileage 1.20
\$1.95

NO. 1333.

Houston & Texas Cent. Ry. Co.,

vs

W. A. East

----- ::o:-----

----- :: OPINION ::-----

Judgment of Court of Civil
Appeals REVERSED and Judgment
of District Court AFFIRMED.

Williams, Asso. Jus.

HOUSTON & TEXAS CENTRAL RAILWAY COMPANY, Plaintiff in Error,

No.1333.

-vs-

From Grayson County, Fifth District.

W. A. EAST, Defendant in Error.

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This case is thus stated by the Court of Civil Appeals:

"This is a suit by W. A. East against the Houston and Texas Central Railroad Company for damages growing out of the alleged destruction by defendant of plaintiff's well. The case was tried before the court without a jury and resulted in a judgment for defendant and plaintiff appealed. The trial court filed conclusions of fact which in the absence of a statement of facts are to be taken as the facts of the case. Said conclusions are as follows:

"1st. The defendant, the Houston and Texas Central Railroad Company was the owner in fee simple of six (6) lots in the City of Denison, Grayson County, Texas, at the time mentioned in plaintiff's petition, and dug thereon a well twenty (20) feet in diameter and sixty-six (66) feet deep. It put therein a steam pump of sufficient strength to supply a three inch pipe, and with the exception of three or four days since August, 1901, has daily taken from said well by means of said pump about twenty-five thousand (25,000) gallons of water. This water was taken from said well and used by it in its locomotives and machine shops operated by it in the City of Denison, in which said land is situated. Said well is supplied entirely by water percolating through its soil and that of adjacent lands and not by any underground or other stream of any kind. Before digging said well, defendant made an examination of its surroundings, including the well of the plaintiff, and made test holes with a view of obtaining the desired supply of fifty thousand (50,000) gallons of water per day. Plaintiff was present when such examinations were being made and consented for his well to be examined by defendant, and had no further conversation or communication with the defendant upon the subject. From the examination made by it, defendant became satisfied that it could procure the desired supply of water upon the land as aforesaid, and dug said well for purposes of obtaining the same for the

No.1333---2.

uses hereinbefore set out. The wells were dug without any intention on the part of defendant of injuring the property of either of the plaintiffs and did not know that such would be the effect. The water percolated into defendant's well at different depths, some of it coming into the bottom thereof. The well of plaintiff is about five feet in diameter and about thirty-three feet in depth; is on land owned by plaintiff in fee simple and is used as a homestead by plaintiff, was dug prior to defendant's well and had always been used by plaintiff, up to the time defendant's well was dug, for household purposes, and prior to that time, had always supplied an adequate supply of water for such uses; that this well has been dried up by the digging and use to which defendant has put its well. That the damage that plaintiff and his land has sustained, by the drying up of his well, is the sum of two hundred and six dollars and twenty-five cents (206.25) including both past and ^{prospective} ~~xxxxxxx~~ injury to himself and the lots described in his petition.

"2nd. I further find that the use to which defendant puts its well was not a reasonable use of their property as land, but was an artificial use of their property, and if the doctrine of reasonable use, as applicable to defined streams to such cases, this was unreasonable."

The Court of Civil Appeals reversed the judgment of the district court in favor of the defendant and rendered judgment for plaintiff for the damages claimed. We are of the opinion that this judgment is wrong and that of the district court right.

Since the decision in the case of Acton v. Blundell (12 Mees. & W., 324), the law as therein laid down, so far as it controls this case, has been recognized and followed in the courts of England, and probably by all the courts of last resort in this country before which the question has come, except the Supreme Court of New Hampshire. (Bassett v. Salisbury Mfg. Co., 43 N. H., 569; Swett v. Cutts, 50 N. H., 439.) That doctrine is thus stated: "That the person who owns the surface may dig therein, and apply all that is there found to his own purposes at his free will and pleasure; and that if, in the exercise of such right, he intercepts or drains off the water collected from the underground springs in

No.1333.---3.

his neighbor's well, this inconvenience to his neighbor falls within the description of damnum absque injuria, which cannot become the ground of an action." The argument in favor of the application to such cases of the doctrines applicable to defined streams of water were thoroughly presented at the bar in Acton v. Blundell, and the reasons for the conclusion of the court against such application were carefully stated in the opinion. 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 that case. (Acton v. Blundell, supra; Bhasemore v. Richards, 7 H. L. Cas., 364; Frazier v. Brown, 12 Ohio St., 294; Miller v. Blackrock Springs Imp.Co., 40 N.E., (Va.) 27.)

The many other authorities on the subject are cited in the cases referred to, and so thorough has been the discussion that we feel that it would be useless to attempt any addition. The practical reasons upon which the courts base their conclusions fully meet the more theoretical view of the New Hampshire court and satisfy us of the necessity of the doctrine. These reasons are thus summarized by the Supreme Court of Ohio in Frazier v. Brown: "In the absence of express contract and a positive authorized legislation, as between proprietors of adjoining land, the law recognizes no correlative rights in respect to underground waters percolating, oozing, or filtrating through the earth; and this mainly from considerations of public policy: (1) Because the existence, origin, movement, and course of such waters, and the causes which govern and direct their movements, are so secret, occult, and concealed that an attempt to administer any set of legal rules in respect to them would be involved in hopeless uncertainty, and would, therefore, be practically impossible. (2) Because any such recognition of correlative rights would interfere, to the material detriment of the commonwealth, with drainage and agriculture, mining, and the construction of highways and railroads, with sanitary regulations, building, and the general progress of improvement in works of embellishment and utility."

The mere quantity of water taken by the owner from his land has nowhere been held to affect the question. Exhaustion resulting from excavating and pumping for mining purposes has been considered in several

No.1333---4.

cases to give rise to no liability. So the authorities generally state that the use of the water for manufacturing, brewing and like purposes, is within the right of the owner of the soil, whatever may be its effect upon his neighbor's wells and springs.

In Chasmore v. Richards, supra, the defendant, in supplying the wants of a town, used to such an extent the water which had percolated through his land into a water course as to reduce the water in the stream and to leave the plaintiff's mill thereon without adequate power, and yet it was held that there was no liability. There is possibly a conflict which we need not undertake to resolve between this decision and those in the two New York cases stated below. But in Chasmore v. Richards, Lord Wensleydale, who alone among ~~xxxx~~ several delivering opinions, expressed doubt as to the correctness of the conclusion reached, admitted the soundness of the principle laid down in Acton v. Blundell, and that the owner of the soil is at liberty to dig therein and take away the percolating water for any legitimate purpose of his own, "even though they carried on trades requiring more water (breweries for example) than would be used for domestic purposes only; it would still be for their purposes only." His doubt arose out of the fact that the defendant was not using the water for his own purposes but was selling it to others. If persons using lands in mining, manufacturing and brewing may take therefrom all the water required in the prosecution of such businesses, what reason can exist why a railroad company may not do the same thing for such purposes as those to which it applies this well? We think none can be given. In the case of Hougan v. Railway Co., (35 Ia., 558) the doctrine was applied to a situation like that shown by the facts of this case, except that there the railway company had only the right of way over, while here it owns the fee of the land; a difference in favor of ~~this~~ defendant. ~~xxxx~~. The decision is useful in establishing the proposition that such uses of water by railway companies are legitimate and proper uses in the sense of the rule we are considering. The other question, upon which the court was more doubtful, viz: whether or not such a company, with only a right of way over the land, has the right

No.1333---5.

to thus draw the water from it, is not here involved.

Besides the New Hampshire decisions which deny the whole doctrine of the other authorities, plaintiff relies on the cases of Forbell v. New York, 51 L.R.A.,696; Smith v. Brooklyn, 45 L.R.A.,664, s.c. 46 N.Y. Supp.,141, and Stillwater Co. v. Farmer, (93 N.W.(Minn.)907.) The courts in New York, by previous decisions, had unequivocally accepted the doctrine of Acton v. Blundell in this language: "An owner of soil may divert percolating water, consume or cut it off, with impunity. It is the same as land and cannot be distinguished in law from land. So the owner of land is the absolute owner of the soil and of percolating water, which is a part of and not different from, the soil. No action lies against the owner for interfering with or destroying percolating or circulating water under the earth's surface." (Pixley v. Clark, 35 N.Y.,520.) In the two cases relied on, the courts expressly adhered to this doctrine, but considered that certain facts in the cases before them took them out of its operation. One of the facts was, the cities had drained an immense area to supply their inhabitants with water and were "making merchandize" of it, a fact which gave rise to the doubt expressed in Chasemore v. Richards. Another was, that an artificial force was applied to draw the water from the adjoining lands, which was held to constitute a trespass; and still another, that the water of defined streams was affected by the exhaustion by the cities of their sources. The existence of these facts was expressly made the ground of the holding that the general doctrine as to taking ~~water~~ out of one's own soil ^{water} that comes there by percolation did not apply. In the Minnesota case, the defendant made no use whatever of the water, but, for no useful purpose, drained it away and discharged it through the sewers of a town, thus taking it from plaintiff who was supplying it to the inhabitants of the town for drinking purposes. The court recognized the soundness of the doctrine which we have stated, but held that as the defendant was making no legitimate use of the water he was properly enjoined from thus wasting it. Whether or not the courts in these cases succeeded in establishing a just distinction between them and others

No.1333----6.

applying the general rule we are not called on to determine.

It is readily seen that **none** of them, in their facts or the principles enforced, sustain this action. The defendant here is making a reasonable and legitimate use of the water which it takes from its own land, which use is not in quality different from or in its consequences to plaintiff more injurious than many upheld in the decisions. There is no claim of malice or wanton conduct of any character, and the effect to be given to such a fact when it exists is beside the present inquiry. No reason exists why the general doctrine should not govern the case.

The judgment of the Court of Civil Appeals is therefore reversed and that of the district court affirmed.

J. A. Williams

Associate Justice.

No No 1263

No 1333

HOUSTON & TEXAS CENTRAL R. R. CO.,
PLAINTIFF IN ERROR,

VS.

A. EAST, DEFENDANT IN ERROR.

6

MOTION FOR RE-HEARING.

Copy & receipt issued
August 30 1904,

Filed in Supreme
Court June 28. 1904

F. J. Connelly
Clerk A

No.

W. A. EAST,

VS.

H. & T. C. R.R. CO.

IN THE SUPREME COURT OF THE

-:-

STATE OF TEXAS.

Comes now W. A. East by his attorneys, Perry Morris and L. B. Epstein, and moves this Honorable Court to grant him a re-hearing in the above entitled and numbered cause, and shows to the court that the original defendant, the Houston and Texas Central Railroad Company, who is Plaintiff in Error in this court, is represented by Head & Dillard, Attorneys at Law who reside at Sherman in Grayson County, Texas,. That the opinion of this Honorable Court was filed on the 13th day of June, A. D., 1904.

I.

Defendant in Error is of the opinion that this court erred in holding that there are no correlative rights in underground percolating waters.

II.

This court erred in holding that Plaintiff in Error, the Houston and Texas Central Railroad Company, was not liable under the facts found in this cause, because the Plaintiff in Error had the right to use any quantity of water that accumulated under its land by percolating through the soil, so long as the purpose for which such water was procured and used was justifiable.

III.

This court erred in finding that the use made by Plaintiff in Error of the water extracted from the soil in this case was a reasonable use of water, because whether or not such use was reasonable was a question of fact under all circumstances of the case, and the fact having been

passed upon by the District Court and the Court of Civil Appeals and both of these courts having held that the use made by the railroad company of the water extracted from the soil in controversy was under all circumstances of this case unreasonable, the Supreme Court had no right to reverse them in this respect.

IV.

And because of the foregoing and various other errors manifest in the opinion of the court, Defendant in Error respectfully requests that a re-hearing be granted him in this cause and that the judgment of the Court of Civil Appeals be affirmed.

All of which is

Respectfully submitted.

Perry Morris

S. B. Epstein

ATTORNEYS FOR DEFENDANT IN
ERROR.

741 722

SUPREME COURT.

N. & T. C. R.R. Co.
No. *1333* vs. *W. A. East*

PRECEPT.

Issued *August 30th* 190*4*
J. J. Connersly Clerk.
[Signature] Deputy.

SHERIFF'S RETURN.

Came to hand *Aug. 27'* 190*4*
Executed *Aug. 27'* 190*4*
by delivering to the within named *Head T*
Dillard

in person, the accompanying certified copy of motion.

M. Russell
Sheriff *Grayson* County.
By *A. J. Hogan* Deputy.
Sheriff's Fee, \$ *85*

Received back *Aug 20* 190*4*

THE STATE OF TEXAS,

To the Sheriff of

Grayson

County, Greeting:

YOU ARE HEREBY COMMANDED, that you serve upon

Nead & Willard

Attorney of record

for Plaintiff in Error

in the case of

M. T. R. R. Co.

Plaintiff in Error,

vs.

M. A. East

Defendant in Error,

the accompanying certified copy of motion for *rehearing?*

made by *L. B. Epstein* ^{and} *Berry Messier*
Attorney of record for Defendant in Error

in said cause, now on file in this office.

HEREIN FAIL NOT, but of this writ make due return, under the penalty prescribed by law, with your indorsement thereon, showing how you have executed the same.

WITNESS, the HON. REUBEN R. GAINES, Chief Justice of our said Supreme Court, with Seal thereof annexed, at Austin,

this the *20th* day of *August* 190*4*

F. J. Conners Clerk.

By _____ Deputy.

No. No. 1263
No. 1333
N. J. C. R. R. Co.

vs
W. A. Cash

Defendant in Error
Request to Dismiss
Motion for Rehearing

Granted Oct. 6, 1904,

Filed in Supreme
Court August 24, 1904
J. J. Conway
Clerk

ARTHUR G. MOSELEY.
LOUIS B. EPPSTEIN.

LAW OFFICES
MOSELEY AND EPPSTEIN
226 MAIN STREET.
DENISON, TEXAS.

J J Comerly

Austin Tex

Dear Sir:

Please dismiss our
motion for rehearing in re
East v Houston & J Ry Co.
and send me bill of costs

Very truly

L B Eppstein

Aug 22 1904

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