



**Texas Water Law:**  
**The**  
**Next**  
**Century**

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# Texas Water Law: The Next Century

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# TEXAS WATER LAW: THE NEXT CENTURY

presented by

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## I. INTRODUCTION

The purpose of this article is to provide an overview of Texas law regarding the ownership and right to use water. The article also addresses the transfer of water rights, water supply contracts and the changes that have been made and can be anticipated in surface and groundwater law and how these changes might affect property owners.

These issues will be explored in the following outline, considering both surface and groundwater law, with sections devoted to recent changes and possible changes in the future.

## II. OWNERSHIP OF WATER

Generally, ownership of water is directly related to its source and type. It can be generally said that under Texas law, underground water belongs to the owner of the surface estate, while surface water belongs to the State of Texas and may be only used by the landowner with the State's permission. *Bartley v. Sone*, 527 S.W.2d 754 (Tex. Civ. App.—San Antonio 1974, writ ref'd n.r.e.). In the absence of contrary evidence, underground water is presumed to be percolating groundwater and therefore owned by the surface estate owner. *Texas Co. v. Burkett*, 117 Tex. 16, 296 S.W. 273 (1927). *Pecos County Water Control & Improvement Dist. v. Williams*, 271 S.W.2d 503 (Tex. Civ. App.—El Paso 1954, writ ref'd n.r.e.).

## III. SURFACE WATER

The State of Texas holds title to all surface water of the state in trust for the public welfare. *Mott v. Boyd*, 286 116 Tex. 82, S.W. 458 (1926); *In re Adjudication of Water Rights of the Upper Guadalupe Segment*, 642 S.W.2d 438, 445 (Tex. 1982). Section 11.021 of the Texas Water Code defines the surface water owned by the state to include the water of the ordinary flow, underflow and tides of every flowing river, natural stream and lake and of every bay or arm of the Gulf of Mexico, as well as the storm water, flood water and rainwater of every river, natural stream, canyon, ravine, depression and watershed in the state. In short, any channelized flow of water is deemed to be owned by the state.

Diffused surface water is not state water. These are waters which do not flow in any defined water course, channel, ravine, creek or depression, but rather cross the surface of the earth in variant and unregulated ways. Diffused surface water is subject to capture and use by the landowner without obtaining permission of the state through a permit. The trick, of course, is capturing the water before

it enters any type of creek, ravine, stream or river. Several Texas cases have also recognized that the water in an underground stream or the underflow of a surface stream is state water. *Pecos County Water Control & Improvement Dist. v. Williams*, 271 S.W.2d 503 (Tex. Civ. App. - El Paso 1954, ref'd n.r.e.). *Dennis v. Kickapoo Land Co.*, 771 S.W. 2d 235 (Tex. App. - Austin 1989, writ denied).

The history of the development of surface water law and the right to use the water found in the rivers and streams of Texas involves Spanish civil law, English common law and appropriation pursuant to state statutes beginning with the 1889 Irrigation Act. The 1913 Irrigation Act has been described as the beginning of an organized system of water rights in the State of Texas. The 1913 Act clarified that the doctrine of prior appropriation applied statewide, and that all unappropriated surface water in the state was the property of the state. The Act recognized pre-existing riparian rights, but precluded the acquisition of riparian rights for lands acquired from the state after 1895. For the first time, a Board of Water Engineers (the predecessor to the current TNRCC) was established to administer a water permitting system. The modern era of surface water law was ushered in with the Water Rights Adjudication Act of 1967. Under the Act, all riparian and unrecorded users of water were required to file claims with the Texas Water Commission (now the TNRCC). Obviously, the legislation acknowledged prior appropriations recognized by the Board of Water Engineers. The state's waters are therefore administered exclusively through a permitting system administered by the TNRCC.

#### IV. SURFACE WATER RIGHT TRANSFER

The history of regulation of surface water rights transfers begins with *Clark v. Briscoe Irrigation Co.*, 200 S.W.2d 674 (Tex. Civ. App.-- Austin 1947, writ dis'm'd w.o.j.), in which the Court held that the holder of a state permit could not change the place or purpose of use specified in the permit without the Board of Water Engineers approval. The Court applied this holding to permits granted by the state after the 1917 Constitutional Amendment and passage by the Legislature of the Irrigation Act.

In *Nueces County Water Control & Improvement Dist. v. Texas Water Rights Comm'n*, 481 S.W.2d 924 (Tex. Civ. App.-- Austin 1972, writ ref'd n.r.e.), the Court held that a certified filing holder could change the purpose of use from irrigation to municipal and domestic purposes without Commission approval. The Texas Legislature, in response, adopted Section 11.022 of the Water Code requiring that all holders of permits, certified filings and certificates of adjudication obtain the approval of the Commission to change the place of use, purpose of use, point of diversion, rate of diversion, acreage to be irrigated or otherwise alter a water right. The legislation also authorized the Commission to adopt rules to implement the process for amendment of permits. Rules were adopted requiring permit holders seeking an amendment to give notice and required a hearing if the change was opposed by any affected party. The burden in these proceedings falls generally on the applicant to demonstrate no injury associated with the amendment.

## V. IN-BASIN TRANSFERS

Section 11.134(b)(3)(B) of the Water Code provides that an application to amend a permit, such as would be required by a transfer, may not be approved if it would "impair" an existing water right or vested riparian right. If the Commission determines that an amendment would impair an existing right, the Commission may place restrictions or conditions on the amended water right to avoid the impairment. The purpose of the "no-injury" rule is to protect existing water rights from impairment, including rights that are junior to the right being amended. Even changes in use have required scrutiny under this standard.

Major amendments to water rights of the type necessary for an active market have been extremely rare under this level of scrutiny or review. While many argue that the "four-corners doctrine" should apply, the practical experience of many seeking amendments to water rights has been that they were, in many cases, as difficult to obtain as a new appropriation. Many factors considered in a new appropriation are considered by the Commission in determining whether to allow a proposed amendment. The TNRCC, while acknowledging that the four-corners doctrine is the correct legal principal to apply to an application to amend a permit in practice, placed the burden on the applicant to prove that no material harm to an existing appropriator would result from the approval of the amendment and that there would be no other detrimental impacts. The TNRCC considered the direction of Section 11.134(b)(3)(C) of the Water Code as sufficient justification for examination of all potential impacts of the proposed amendment beyond adverse impacts on existing water rights holders. The Commission has consistently applied this broad scope to applications for an amended water right and granted these requests only if it is "not detrimental to the public welfare." This allowed the Commission to consider the social, economic and environmental impacts of proposed amendments to water rights.

## VI. SB-1 TO THE RESCUE?

Senate Bill 1 includes many efforts to simplify and clarify the process by which amendments to water rights can be accomplished. Indeed, Senate Bill 1 expresses a clear legislative intent to encourage the development and active participation in a water market for surface water rights in Texas.

Among the many changes to the Water Code, Senate Bill 1 added Section 11.122(b), which provides as follows:

Subject to meeting all other applicable requirements of this Chapter for the approval of an application, an amendment, except an amendment to a water right that increases the amount of water authorized to be diverted or the authorized rate of diversion, shall be authorized if the requested change will not cause adverse impact on other water right holders or the environment on the stream of greater magnitude than under circumstances in which the permit, certified

filing, or certificate of adjudication that is sought to be amended was fully exercised according to its terms and conditions as they existed before the requested amendment.

In other words, the legislature has directed that the TNRCC assume that a water right was fully exercised according to its terms in evaluating the impact on other water right holders or the environment of a proposed amendment to that right. This, of course, still does not answer the question of the effect of Section 11.134(b)(3)(C).

While its application remains to be seen, this change in the Water Code accomplished by Senate Bill 1 established that all water authorized for diversion (used or unused) may be transferred. In addition, it reduces the opportunity for claimed adverse impacts based on changes in type of use, consistency or quantity of use or timing of use.

Perhaps now the biggest limitation on transfers involves the point of diversion since, in the absence of a conveyance system, the location of diversion will most likely need to be changed to make use of an acquired right.

## **VII. INTERBASIN TRANSFERS**

Prior to Senate Bill 1, Section 11.085 of the Texas Water Code addressing interbasin transfers contained four subsections (a-d). The old Section 11.085 limited interbasin transfers if they would prejudice any person or property situated within the watershed from which the water was proposed to be taken or diverted. Senate Bill 1 has expanded Section 11.085 to 22 subsections with numerous sub-parts, all of which are designed to make approval of interbasin transfers more difficult and time consuming. After notice and the required public hearings, new Section (k) of 11.085 provides that:

In addition to other requirements of this code relating to the review and action on an application for a new water right or amended permit, certified filing or certificate of adjudication, the commission shall weigh the effects of the proposed transfer by considering:

- (1) the need for the water in the basin of origin and in the proposed receiving basin based on the period for which the water supply is requested, but not to exceed 50 years;
- (2) factors identified in the applicable approved region of water plans which address the following:
  - (A) the availability of feasible and practicable alternative supplies in the receiving basin of the water proposed for transfer;

- (B) the amount and purpose of use in the receiving basin for which water is needed;
  - (C) proposed methods and efforts by the receiving basin to avoid waste and implement water conservation and drought by contingency measures;
  - (D) proposed methods and efforts by the receiving basin to put the water proposed for transfer to beneficial use;
  - (E) the projected economic impact that is reasonably expected to occur in each basin as a result of the transfer; and
  - (F) the projected impacts of the proposed transfer that are reasonably expected to occur on existing water rights, instream uses, water quality, aquatic and riparian habitat, and bays and estuaries that must be assessed under Sections 11.147, 11.150, and 11.152 of this code in each basin. If the water sought to be transferred is currently authorized to be used under an existing permit, certified filing or certificate of adjudication, such impacts shall only be considered in relation to that portion of the permit, certified filing or certificate of adjudication proposed for transfer and shall be based on historical uses of the permit, certified filing or a certificate of adjudication for which amendment is sought;
- (3) proposed mitigation or compensation, if any, to the basin of origin by the applicant;
  - (4) the continued need to use the water for the purposes authorized under the existing permit, certified filing or certificate of adjudication if an amendment to an existing water right is sought; and
  - (5) the information required to be submitted by the applicant.

Thus, the four-corners rule is abrogated for an interbasin transfer and a substantial burden is placed on the applicant that is far beyond a consideration of impacts on existing water rights holders. Perhaps more importantly, subsection (1) provides that:

the Commission may grant, in whole or in part, an application for interbasin transfer only to the extent that:



- (1) the detriments to the basin of origin during the proposed transfer period are less than the benefits to the receiving basin during the proposed transfer period; and
- (2) the applicant for the interbasin transfer has prepared a drought contingency plan and has developed and implemented a water conservation plan that will result in the highest practicable levels of water conservation and efficiency achievable within the jurisdiction of the applicant. (emphasis added)

This, of course, is a burden that no applicant can be certain of meeting under any circumstances, and would certainly have jeopardized all previous interbasin transfers upon which a substantial portion of the state's citizens currently rely. As if this were not enough to deal the surface water market in Texas a mortal blow, the Legislature added a junior rights provision in subsection (s) that makes any transfer of all or a portion of a water right out of basin junior in priority to all water rights granted before the application for transfer is accepted for filing.

### VIII. GROUNDWATER / RULE OF CAPTURE

Since 1904, Texas has followed the English common law rule of absolute ownership, or the rule of capture, in determining liability for damages caused by the use of underground water. *Texas in Houston and T.C. Railway Company v. East*, 98 Tex. 146, 81 S.W.2d 279 (1904). Since its adoption, commentators have suggested that the rule of capture in Texas be abandoned in favor of systems adopted by other states, including states previously following absolute ownership rule. One recent commentator noted that all other western states have established "more progressive" groundwater laws. The criticism is primarily focused on the lack of protection available to landowners adversely affected by nearby groundwater usage or downstream users of surface water deprived of historic flows by surface owners of springs or landowners capturing groundwater.

The origins of the rule of capture are interesting and informative in the context of describing the ownership right. The rule arose, and was first applied to wild game, in the context of land ownership. Ownership of a deer or fox could not be claimed until possession was actually taken. The right, therefore, did not vest until possession had been obtained by the surface owner and vested, not as a consequence of ownership, but rather the act of taking possession of the animal by virtue of capture. The rule was applied in England to water and resulted in findings of no liability for damages caused by a surface landowner's use of water. The rule was applied even if the water was used on land other than the land from which the water was produced.

The facts of the *East* case presented the Texas Supreme Court with its first opportunity to address the law to be applied to the ownership of groundwater and liability for its use. The case arose as a claim for damages by a landowner against an adjacent landowner for injuries allegedly caused by new, large volume pumping by the nearby landowner. The plaintiff farmer had historically used groundwater which became unavailable because the railroad company/landowner

began pumping groundwater to cool locomotives some distance from the locations of the wells. The Texas Supreme Court recognized no right to recover damages for the loss of use of the plaintiff's wells and the plaintiff could not prevent the railroad's use of the water, even though such use clearly deprived the plaintiff of a historically exercised right. The Court refused to adopt a system that would limit the use of groundwater to prevent harm to nearby property owners or sanction a claim for damages. The Court expressly rejected the American rule, which limits the use of the water to the reasonable amount for the land from which it is produced. The landowner, in the Court's opinion, was free to capture and use as much water as could be beneficially used without waste. The Court expressed considerable concern about the adverse economic development consequences of adoption of the American Rule, particularly in the context of the railroad industry's need for water along its growing network of lines.

In 1927, the Texas Supreme Court reaffirmed the rule of capture in *Texas Co. vs. Burkett*, 117 Tex. 16, 296 S.W. 273 (1927). In this case, the Court expressly held that a landowner had the right to enter into a contract to sell groundwater produced from property, even though the water would not be used on the property from which the water would be produced.

All was quiet on the water front until the drought of the 1950's.

## IX. WASTE

The *East* decision adopting the rule of capture did so after a thorough discussion of the argued alternative, the American, or reasonable use, rule. The Court's reasons for adopting the rule were as follows:

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, any attempt to administer a set of legal rules with respect to them would be involved in hopeless uncertainty and would therefore be practically impossible.

2. Any such recognition of correlative rights would interfere to the material detriment of the commonwealth with regard to drainage and agriculture, mining, the construction of highways and railroads with sanitary regulations, building and the general progress of improvement of works of embellishment and utility.

The Court acknowledged that while under the common law use was permitted without regard to volume, waste of the water was not authorized, despite its ownership by the landowner. The Court noted that the mere quantity of water taken by the owner from his land has nowhere been held to effect the question. In distinguishing cases relied upon by the plaintiffs, the Court stated:

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.

In distinguishing a Minnesota case holding that a plaintiff damaged by a neighboring owner's use could enjoin the neighbor's production of groundwater, the Court noted:

... The defendant made no use whatsoever 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 wasting it.

The Court then held that:

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.

While the waste exception to the rule of capture has been recognized since its adoption in 1904, it was not until the Supreme Court decision in *City of Corpus Christi v. City of Pleasanton*, 154 Tex. 289, 276 S.W.2d 798 (Tex. 1955) that the extent to which the waste exception limited the rule of capture was actually tested. The facts of the case were straightforward. A river supply district and the City of Corpus Christi made an agreement under which the district would allow groundwater to flow from the district's artesian wells into a river which would then transport the water 118 miles to the City of Corpus Christi's reservoirs. The City of Pleasanton's water supply was threatened by these actions and it filed a lawsuit to enjoin performance of the contract and prevent the "waste" of the groundwater caused by the loss of water during its transit to the City of Corpus Christi. The plaintiff claimed that the City's use was wasteful, and therefore could be enjoined. The claim was based upon proof that up to 75% of the water removed from the ground was lost to evaporation and seepage before it was actually used by the citizens of the City of Corpus Christi. The plaintiffs relied upon a 1925 statute that defined waste in relation to artesian wells to be permitting the waters of an artesian well to run into any river unless it was put to lawful use. In reversing the lower courts' decisions enjoining the wasteful means of transporting the water, the Supreme Court found that it was not waste to transport water down a natural stream bed with consequent loss of water by evaporation, transpiration and seepage. Examining the limitations on the rule of capture right, the Supreme Court noted that:

About the only limitations applied by those jurisdictions retaining to the English rule are that the owner may not maliciously take water for the sole purpose of injuring his neighbor, (citations omitted) or wantonly and willfully waste it.

In examining whether the facts presented justified a finding that the water had been wasted, the Court noted that no common law limitation of the means of transporting the water to the place

of use could be found and that the question of whether the use to which the water is put is lawful or unlawful cannot reasonably turn on whether some of the water put into the system escapes during transportation. The Court concluded that:

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 is not seen fit to do so.

The Court went on to hold that:

The Legislature is now in session. It will have this opinion before it before adjournment. It will recognize the problem. If it wishes to declare that the transportation of water and conduits which permit the escape of a large percentage is wasteful and unlawful it will have ample time in which to do it.

Justices Griffin, Wilson and Culver dissented. All three were troubled by the percentage of water lost. After lamenting the majority's finding, Justice Wilson wrote on the limitations of the rule of capture and suggested an alternative.

In the field of water law there is no consolation to be found in the law of capture. . . . If the law of capture has any true application to underground water, it is an extremely limited one. No one can live in a vacuum. Therefore, all property rights are to a certain extent correlative.

The jurisprudence with regard to waste is extremely limited. Given the precedent of the *City of Corpus Christi* case, no other cases have made their way to the appellate courts in which a claim of waste of underground water was sustained.

## X. SPRINGS

Springs are the special place in Texas where groundwater subject to the rule of capture and presumptively owned by the landowner that obtains possession of it suddenly becomes surface water and the property of the State of Texas. As early as the case of *Texas Co. v. Burkett*, the Supreme Court recognized that spring water which was neither surface water nor water in a subsurface stream with defined channels was the exclusive property of the landowner.

The conflict between ownership and use of percolating groundwater ultimately emerging at springs and landowners that have historically benefitted from and used downstream flows from a spring resulted in court decisions addressing the issue beginning in 1951. *Pecos County Water Control & Improvement Dist. v. Williams*, 271 S.W.2d 503 (Tex. Civ. App.—El Paso 1954, writ ref'd n.r.e.). Defendant Williams owned large areas of land over groundwater formations which historically had provided flow to Comanche Springs. Plaintiffs were the beneficiaries of the spring flow and had used and enjoyed the waters of Comanche Springs for 90 years. During the 1950's

drought, defendant Williams began pumping large volumes of groundwater and Comanche Springs stopped flowing. Williams' extensive groundwater use was alleged to have caused the cessation of the spring flow and the downstream water users sued. The District Court refused to enjoin the use since it was not wasteful and refused to judicially declare correlative rights in the water issue. In affirming the trial Court's judgment, the El Paso Court of Appeals ruled that:

It seems clear to us that percolating or diffused and percolating waters belong to the landowner and may be used by him at his will.

Rejecting the idea that there could be some type of declaration of correlative rights between the landowner and the beneficiaries of the surface flow, the El Paso Court held:

The cases cited in the paragraph above, holding that the surface owner owns the underground percolating water and may use it at his will in a non-wasteful, manner do not authorize, but preclude, any correlative regulation as far as such percolating water is concerned in the situation here presented and under the law as it now exists.

Finally, the Court noted that:

It may be that the answer to this unhappy situation is legislative.

Forty-five years later, the answer to this unhappy situation may indeed be legislative, but no such legislative remedy has been applied. *Bartley v. Sone*, 527 S.W.2d 754 (Tex. Civ. App.-- San Antonio 1974, writ ref'd n.r.e.) and *Dennis v. Kickapoo Land Co.*, 771 S.W.2d 235 (Tex. App. -- Austin 1989, writ denied) reached similar conclusions concerning the ownership of and right to use groundwater feeding springs. In *Dennis*, the Court was unpersuaded by arguments that the withdrawal of water from, at, or near the spring opening constituted water flowing through a subterranean water course or that the spring water contributed to the flow in the creek relied upon by downstream owners, therefore making it state water. The Court acknowledged that previous opinions might imply that percolating waters contributing to a surface water course might be the exception to the English rule of absolute ownership. Despite this, the Court reasoned that an exception of such magnitude would be inconsistent with Texas law because it would be, in effect, a statement similar to the American rule on percolating groundwater rather than the English rule.

## **XI. SUBSIDENCE**

Subsidence caused by unregulated groundwater withdrawals due to explosive growth in the 1940's, 50's and 60's in the Harris-Galveston County areas created the next conflict in which the rule of capture would be examined. Extensive groundwater pumping in this highly urbanized area had been shown to be causing subsidence. Once it became abundantly clear that a direct linkage between increasing groundwater withdrawals and subsidence had been established, the region recognized the need for limits on the hitherto unlimited right to capture and use groundwater in their area. The region sought legislation creating an underground water conservation district with the power to limit

groundwater use and prevent further damage from subsidence. The Legislature responded by creating the Harris-Galveston Subsidence District. A lawsuit for damages for subsidence allegedly caused by excessive groundwater use in this same part of the state was decided by the Supreme Court in *Friendswood Development Co. v. Smith-Southwest Industries, Inc.*, 576 S.W.2d 21 (Tex. 1978).

In 1973, Smith Southwest Industries and other landowners in Harris County brought a class-action lawsuit against Friendswood Development Company, alleging that severe subsidence of their lands was caused by the Defendant's past and continuing withdrawals of vast quantities of groundwater. The Defendant filed third-party actions against other landowners withdrawing groundwater in the area. The trial Court granted a summary judgment in favor of the Defendants. The Court of Civil Appeals reversed and remanded, holding that the Plaintiffs had stated a cause of action for nuisance and negligence, raising issues of fact. The Supreme Court reversed the Court of Appeals and affirmed the trial court's judgment. However, the Court established a new cause of action limiting the future exercise of the right to capture and use groundwater if such use is negligent and causes subsidence.

A majority of the Supreme Court reviewed plaintiff's argument that the absolute ownership rule should not insulate defendants from damages due to nuisance or negligence in the manner by which they made use of their property and found that it was, in effect, a contention that the reasonable use doctrine should apply to groundwater. After a careful examination of the history and background of the rule of capture in other jurisdictions and in Texas, the Court concluded that some aspects of the rule are harsh and outmoded and that the rule had been severely criticized since its reaffirmation by the Court in the 1955 *City of Corpus Christi* case. The Court specifically held that:

On this subject we are not writing on a clean slate. Even though good reasons may exist for lifting the immunity from tort actions in cases of this nature, it would be unjust to do so retroactively. The doctrine of stare decises has been and should be strictly followed by this Court in cases involving established rules of property rights (emphasis added).

The Court then made two very significant rulings. First, the Court created a common law exception to the unlimited right to use groundwater by recognizing a cause of action for "future" subsidence proximately caused by negligence in the manner in which wells are drilled or produced in the future. The Court concluded:

Therefore, if the landowner's manner of withdrawing groundwater from his land is negligent, willfully wasteful, or for the purpose of malicious injury, and such conduct is the proximate cause of the subsidence of the land of others, he will be liable for the consequences of his conduct. The addition of negligence as a ground of recovery shall apply only to future subsidence proximately caused by future withdrawals of groundwater from wells which are either produced or drilled in a negligent manner after the date this opinion becomes final.

The Court also called upon the Legislature to exercise its proper role in regulating and managing groundwater withdrawals in the State of Texas. Specifically, the Court wrote:

The need for additional legislation for creation of districts to cover unregulated groundwater reservoirs and to solve other conflicts which may arise in this area of water law and subsidence seems to be inevitable. 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 groundwater uses and subsidence on a case by case basis.

In a dissenting opinion by Justice Pope, joined by Justice Johnson, a strong argument was made for recognition of a cause of action for damages caused to the land of another by groundwater withdrawals as distinguished from a claim for damages caused by the loss of the use of the water.

In 1975, the Texas Legislature created the Harris-Galveston Coastal Subsidence District specifically in response to the subsidence problems caused by groundwater withdrawals in the Gulf Coast region. This legislative effort led to litigation challenging the District's powers as an unconstitutional limitation on the exercise of the property rights of landowners. The decision in that case and its implications will be discussed below.

## **XII. THE LATEST CHAPTER**

The last chapter in the common law history of the rule of capture in Texas was written in the Supreme Court decision in *Sipriano v. Great Spring Waters of America, Inc.*, 1 S.W.3d 75 (Tex. 1999). The procedural history and claims in the case provide the context in which the decision can be analyzed. Sipriano claimed that wells he owned were severely depleted by the defendant's alleged nuisance, negligence, gross negligence and malice. Defendant had purchased land, constructed wells and begun producing groundwater for bottling purposes. The defendant obtained a summary judgment denying all of the plaintiff's claims, which was affirmed by the Court of Appeals. In the lower Court, Sipriano argued that his claims fell within recognized exceptions to the rule of capture and further, that Texas should abandon the rule of capture and replace it with the rule of reasonable use. Sipriano abandoned the argument that he had stated a claim under a recognized exception to the rule of capture in arguments to the Supreme Court and argued only that the rule of capture should be abandoned.

After granting writ, hearing arguments and receiving amicus briefs from across the State, on May 6, 1999, the Texas Supreme Court, in a unanimous decision, affirmed lower court judgments applying the rule of capture to groundwater. However, in doing so, they served notice that the rule of capture could change in the future if the Legislature did not adequately address regulation of groundwater usage.

The Court reviewed the history of the rule of capture and the cases interpreting the rule. The Court reviewed the common law exceptions to the rule that a landowner was not liable to his

neighbors for injury caused by the use of water so long as the water was not wasted, negligently withdrawn or maliciously removed. *City of Corpus Christi vs. Pleasanton*, 154 Tex. 289, 276 S.W.2d 798 (Tex. 1955), *Friendswood Development Co. v. Smith-Southwest Industries, Inc.*, 576 S.W.2d 21 (Tex. 1978).

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. The rule of capture essentially allows, with some limited exceptions, a landowner to pump as much groundwater as the landowner chooses, without liability to neighbors who claim that the pumping has depleted their wells. We are asked today whether Texas should abandon this rule for the rule of reasonable use, ... Because we conclude that the sweeping change to Texas groundwater law Sipriano urges this Court to make is not appropriate at this time, we affirm the Court of Appeals' judgment. (emphasis supplied).

The Court's opinion then reviewed the constitutional amendment that authorized the Legislature to address natural resource conservation and the Legislature's first exercise of this constitutional authority to create groundwater conservation districts in 1949 and its subsequent efforts through the passage of SB-1 in 1997. The Court pointed out that its decision in *Barshop v. Medina County Underground Water Conservation Dist.*, 925 S.W.2d 618 (Tex. 1996) recognized the Legislature's authority to regulate groundwater withdrawals in the Edwards Aquifer, given the legitimate state purpose in managing and regulating use of water given. The Court noted the potential harm to the resource and the region if use remained unregulated. The Court did not address the nature of the ownership right but merely accepted the Legislature's right to regulate the exercise of that right. The Court also noted the recent overhaul of Water Code provisions dealing with groundwater districts included in Senate Bill 1, adopted by the Texas Legislature in 1997. These revisions increased the powers of districts and substantially streamlined the process for creating and empowering groundwater conservation districts to regulate private groundwater withdrawals. The Court then deferred to the Legislature and refused to abandon the rule of capture, but with a substantial caveat.

The majority opinion indicated that there were compelling reasons for abandoning the rule of capture and replacing it with the reasonable use rule. The Court further held that it had the power to make such a change and would not be reluctant to do so in the future if the Legislature did not adequately address the problems. In describing the Legislature's role, the Court held:

Today, again, we reiterate that the people have constitutionally empowered the Legislature to act in the best interest of the State to preserve their natural resources, including water. We see no reason, particularly because of the 1917 constitutional amendment, for the Legislature to feel constrained from taking appropriate steps to protect groundwater.

The Court further held that:



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 attempted to craft regulations to meet this state's groundwater-conservation needs. Given the Legislature's recent actions to improve Texas' 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' natural resources and protect property owners' interests.

In deferring to the Legislature, the Supreme Court made particular note of the recent amendments to Water Code provisions applicable to groundwater districts contained in Senate Bill 1. The Court specifically noted amendments giving more authority to groundwater conservation districts to regulate and manage groundwater withdrawals and regulate water transferred outside the district.

The concurring opinion by Justice Hecht, joined by Justice O'Neill, presents a slightly different view. While agreeing to defer to the Legislature, Justice Hecht makes a persuasive argument for the abandonment of the rule of capture in favor of the "beneficial purpose doctrine" set out in Section 858 of the Restatement (Second) of Torts, which would impose liability for withdrawal of groundwater which unreasonably causes harm to neighboring land through lowering the water table or reducing artesian pressure, or for water use that exceeds the landowner's reasonable share of the annual supply or total store of groundwater, or has a direct and substantial effect upon a water course or lake and unreasonably causes harm to a person entitled to use its water. Justice Hecht then states:

While neither section 858, nor any other common law rule of water regulation is preferable to almost any effective legislative solution, absent such a solution, section 858 is preferable to the rule of capture.

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 usage 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 concur in the view that, for now - - but I think only for now - - East should not be overruled. (emphasis added)

### **XIII. NATURE OF THE OWNERSHIP RIGHT / LEGISLATIVE ROLE IN REGULATING GROUNDWATER**

In adopting and affirming the rule of capture's no liability underpinnings, the courts have been reluctant to clearly define the nature of the ownership right embraced by the absolute ownership rule. Indeed, in *Sipriano*, the Supreme Court deftly avoided a discussion of the nature of the ownership right and instead held that it was inappropriate for the Court, given the Legislature's involvement, to insert itself into the regulatory mix by substituting the rule of reasonable use for the current rule of capture. This implies that the Court believes that a change from the rule of capture to the reasonable use rule would not constitute a change in the nature of the ownership right, but rather would constitute "common law regulation" of the recognized right. By implication, the Court dismisses the thought that such a change could constitute a taking. In each of the cases previously discussed, the Court has deftly avoided a discussion of the nature of the property right encompassed by the rule of capture, but has consistently upheld the Legislature's limitation on the exercise of the right.

In *Barshop v. Medina Underground Water Conservation Dist.*, 925 S.W.2d 618 (Tex. 1996), the Supreme Court was faced squarely with a claim by landowner plaintiffs that the Edwards Aquifer Authority Act did far more than just regulate the use of Edwards groundwater governed by the rule of capture. The plaintiffs claimed that the Act deprived the landowner of a vested property right in violation of the Constitution. Plaintiffs conceded that the State has the right to regulate the use of underground water, but maintained that they owned the water beneath their land and that they had a vested property right in the water, which the Legislation took away. The state countered that the rule of capture, while an ownership right, was not vested until the water was actually reduced to possession and no taking occurs by virtue of regulation of use. As the Court put it:

The parties simply fundamentally disagree on the nature of the property rights affected by this Act.

In avoiding a definitive answer to the nature of the ownership rights embraced by the rule of capture, the Court held:

Because Plaintiffs have not established that the Act is unconstitutional on its face, it is not necessary to the disposition of this case to definitively resolve the clash between property rights in water and regulation of water. Instead our focus will be on the issues which control the resolution of this case.

The Court then held:

We therefore conclude that Plaintiffs cannot meet their burden in this facial challenge of establishing that under all circumstances the Act will deprive them of their property in violation of the Texas Constitution.

#### XIV. HISTORY OF LEGISLATIVE REGULATION OF GROUNDWATER

A severe drought in the early 1900's led to the adoption of the conservation amendment to the Texas Constitution in 1917. Article 16, Section 59 of the Texas Constitution declares the conservation of the State's natural resources, including water, to be a public right and duty. Not until the 1940's did the Legislature authorize the creation of underground water conservation districts for the purpose of managing groundwater resources. The first underground water conservation districts were created in the Texas Panhandle during the 1950's drought, as landowners collectively watched their non-renewable groundwater source decline. The districts were authorized to, and did, regulate production within their jurisdiction by imposing spacing limitations on well locations. This regulatory approach by early groundwater districts was well suited in a largely agricultural area with a vast sand aquifer. Litigation challenging these rules or the legislation creating the districts did not occur, leaving the question of the scope of the Legislature's power untested. The first such test occurred with the creation of the Harris-Galveston Coastal Subsidence District in 1975. In *Beckendorff v. Harris-Galveston Coastal Subsidence Dist.*, 558 S.W.2d 75 (Tex. Civ. App.—Houston [14th Dist.] 1977) writ ref'd n.r.e. percuriam, 563 S.W.2d 239 (Tex. 1978) the Court considered landowner claims challenging the process of adopting the Act and the powers contained in the statute creating the District. In rejecting the landowners' claims, the Court addressed a number of issues significant to the creation of groundwater conservation districts. First, the Court ruled that Article 16, Section 59 of the Texas Constitution was sufficient authorization for the creation of the subsidence district with the powers delegated, relying on its purpose to control flooding and inundation. The Court held that the district could use permit fees to finance district operations, even though not expressly authorized by Article 16, Section 59 of the Constitution. The Court also rejected the argument that the permit fees were a tax, as opposed to a regulatory measure, noting that if the primary purpose of the charge is to raise revenue then it is a tax, if its primary purpose is regulation then it is a license fee. The Court reasoned that the purposes of the Harris-Galveston Subsidence District were undeniably regulatory and that the creation of an economic disincentive to groundwater withdrawal constituted an effective means of regulation. The Court concluded that permit fees were not a tax and could be imposed by the district. The Court also rejected the landowners' equal protection and due process arguments. The failure of the Legislature to include certain areas within the District did not, in the Court's opinion, violate equal protection provisions, nor did uniform fees, even though some regulated areas did not have subsidence problems.

In short, the Court turned aside the multi-faceted claims challenging the Legislature's right to create a district to regulate groundwater withdrawals and the rules adopted by the district in furtherance of those goals. The Supreme Court, in *Barshop vs. Medina County Underground Water Conservation Dist.*, unanimously rejected similar and additional claims related to the Legislature's authority to regulate groundwater withdrawals through the creation of underground water conservation districts, with extensive powers. These decisions imply that challenges to legislation authorizing regulation of groundwater usage will not be favorably received by the courts.

## **XV. EXPANSION OF GROUNDWATER DISTRICT POWERS**

The Legislature has gradually increased the powers of underground water conservation districts. Rules for spacing of wells, and language authorizing the regulation of the production of wells have been in the Water Code provisions applicable to ground water districts for quite some time. It was not until the 1990's, however, that the Legislature greatly increased the powers of underground water conservation districts, with several important amendments to the statutory framework for such districts. Pursuant to Section 36.1071, Districts are now required to adopt management plans which address specific, stated management goals. With mandatory language, the Legislature requires the district to identify the performance standards and management objectives under which the district will operate to achieve the management goals and to state the actions, procedures, performance and avoidance measures necessary to implement the plan. The plan also must include estimates of usable groundwater, current usage, annual recharge and projected demand. Most importantly, the District is obligated to adopt rules necessary to implement the management plan.

Specific authority to set these rules was added to the powers of the districts by the 1997 Legislature, even though this authority had been implied previously. Also in 1997, as part of SB 1, the Legislature authorized districts to include certain conditions, restrictions and limitations in permits to be issued for wells operated within the district. This section specifically authorizes districts to establish conditions and restrictions on the rate and amount of withdrawal from wells. SB 1 also added Section 36.122, authorizing districts to promulgate rules requiring a permit from the district for the transfer of groundwater out of the district. This section establishes criteria that the district must consider in determining whether to issue a permit to transport water outside the district and requires the district to specify in the permit the amount of water that may be transferred and the period for which it will be transferred. These provisions have not generally been tested in court. Several districts that attempted to prohibit exports of groundwater have been challenged in court and export bans have been voided. This area of district authority will generate conflicts in the future when districts attempt to limit or prohibit export of groundwater.

## **XVI. THE ENDANGERED SPECIES ACT - TEXAS' OTHER WATER LAW**

The Endangered Species Act, adopted by the U.S. Congress in 1973, establishes a system of protection for endangered plant and animal species. The Act provides a process for determining which species are worthy of this protection, the administrative process by which the listing, planning and protection will be accomplished and establishes two critical limitations on actions which could cause harm to species subject to the Act's protect. The Act does not propose to establish a mechanism for regulating or state an intention to regulate water usage.

First, the Act prohibits any action that harms (or kills) any listed endangered species or significantly disrupts its critical habitat. This prohibition is crystal clear in the context of killing, hunting, trapping, capturing or commercial trading of protected fauna. Clearly, persons acting with such intent violate the Act when a protected species is harmed by their action. The prohibition is

less clear when the action alleged to cause the harm was undertaken for some purpose other than interference with the endangered species. Have the Endangered Species Act prohibitions made unlawful actions which, prior to the Act, were lawful and authorized? Is the exercise of private property rights by landowners now subject to the Endangered Species Act? The unmistakable answer is yes, although the extent to which the Act can be applied to change the law applicable to groundwater usage has not been the subject of extensive court interpretation. Exercise of groundwater or surface water rights, entirely lawful and authorized, can be argued to be subject to Endangered Species Act constraints.

In addition to prohibiting actions that kill or harm protected species, the Endangered Species Act also requires "consultation" with the U.S. Fish & Wildlife Service on every project which receives federal funding, requires a federal permit or is undertaken by a federal agency if the action may affect protected species. These provisions require all federal agencies to insure that their actions (including permitting and funding) do not harm or adversely affect protected endangered species. While directly applicable to federal agencies, consultation can substantially effect any entity by requiring federal approval or funding for an activity or project.

The pervasive effect and impact of Section 7 consultation requirements on federal agencies, businesses, local governments and individuals is only beginning to be felt in the State of Texas. Established and recognized surface water law and rights and groundwater rule of capture rights may now be vulnerable to restriction or limitation based upon the provisions of the Endangered Species Act. In other words, actions that may be lawful and specifically authorized under state law may be curtailed, modified, restricted or eliminated through the consultation process, or the direct application of the Endangered Species Act "take" prohibitions.

In the Edwards Aquifer region, both the United States Department of Agriculture (*Sierra Club v. Glickman*, 156 F.3d 606 (5th Cir. 1998)) and the U.S. Department of Defense (*Sierra Club v. City of San Antonio*, 112 F.3d 789 (5th Cir. 1997), cert. denied, 552 U.S. 1089 (1998)) have been sued under Section 7 of the Endangered Species Act in connection with activities either funded or undertaken in the Edwards Aquifer region. In *Glickman*, plaintiffs sought to enjoin agricultural program funding which supported irrigated agriculture under Section 7 of the Act. While *Sierra Club v. Glickman* did not directly threaten groundwater, the litigation was intended to deny federal funding to agricultural programs supportive of farmers irrigating crops with groundwater. The *Sierra Club v. San Antonio* lawsuit alleges that the military's Aquifer water usage violates Section 9 of the Act and the military's duties under Section 7 of the Endangered Species Act have been ignored. Groundwater permits owned by military installations under the Edwards Aquifer Authority Act will, despite their validity under state law, be subject to Section 7 Endangered Species Act requirements before they may be used by military bases. Consultation has resulted in agreements by the military to use substantially less water than authorized under state law.

Owners of existing surface water rights and landowners who historically relied upon the rule of capture cannot be satisfied that authorizations or rights under state law will prevail if in conflict with Endangered Species Act prohibitions or limitations. Groundwater users in the Panhandle

Ogallala Region faced the reality of these conflicts when the Sierra Club filed a lawsuit against the U.S. Fish & Wildlife Service seeking to require the designation of the Arkansas River Shiner as an Endangered Species under the Act. The Sierra Club acknowledged in public comments after the suit was filed that the litigation and designation was intended to reduce groundwater usage in the region.

## **XVII. THE EDWARDS AQUIFER AS CASE STUDY**

The southern Edwards Aquifer, the subject of case study and panel discussions at numerous water law and endangered species conferences in Texas, clearly reflects the potential conflict between state water law and the Endangered Species Act. The history of the legislative attention to the Edwards Aquifer dates to the drought of the 1950's. The Edwards Aquifer Underground Water Conservation District (EUWCD) was created in 1959, although with little regulatory power. As a result of regional planning efforts in the 1980's, the EUWCD was authorized to adopt a drought management plan, and legislation to manage and limit groundwater withdrawals from the Edwards Aquifer was recommended. No legislation was passed and the EUWCD lost two counties, Medina and Uvalde, which created their own county districts. The failure to obtain regional consensus on groundwater management encouraged the Sierra Club to use the Endangered Species Act in litigation seeking to force the region, through the federal courts, to limit groundwater withdrawals to protect springflows and species dependent on the Edwards Aquifer. While the disagreement between the Sierra Club and the region's groundwater users centered on limits on groundwater withdrawals required to protect endangered species and preserve the resource, the litigation focused attention on the direct conflict between state groundwater law and the requirements of the Federal Endangered Species Act.

The 1993 Edwards Aquifer Authority legislation was forged in a legislative session during which federal judge Lucius Bunton had ruled in favor of the Sierra Club against the U.S. Fish & Wildlife Service and had ordered the State of Texas to develop and implement by legislation a plan to protect the springflow at Comal and San Marcos Springs, or the Court would entertain the Sierra Club's request for additional relief, specifically, court ordered limits on withdrawals from the Edwards Aquifer. Given these circumstances, the Texas Legislature was certainly aware of the potential application of the Endangered Species Act to the Edwards Aquifer in outlining the duties and obligations of the Edwards Aquifer Authority. Indeed, the Texas Legislature intended for the Edwards Aquifer Authority to make use of the mechanisms contained in the Endangered Species Act for resolving the potential conflicts between the prohibitions contained in the Act, the severe impacts of massive water use reductions necessary to prevent harm to species and unlimited groundwater rule of capture rights.

Prior to the creation of the Edwards Aquifer Authority, no single entity managed withdrawals from the Edwards Aquifer and no goals had been established for management of the resource. The powers of the Edwards Aquifer Authority were shaped by the legislature to allow the authority to obtain a Section 10 permit (authorizing "take" of endangered species if during an otherwise lawful activity) by adopting a habitat conservation plan containing a groundwater management plan as outlined in the legislation. To the extent the authority is able to obtain a Section 10 permit, the

region avoids the delay and cost associated with a Section 7 consultation concerning federal agency actions and approvals required in the region. More importantly, the region's groundwater users, if in compliance with the law, cannot be liable for takes of protected species, even if caused by the activity. Maintenance of a Section 10(a) permit and the obvious benefits of eliminating Section 7 consultation barriers to federal activities and funding in the region provide substantial incentive to the region to accommodate the limitations on groundwater withdrawals contained within the legislation.

When viewed in isolation, the Edwards Aquifer situation can be deemed unique and not reflective of the remainder of the state's groundwater resources. However, the problems faced by the Edwards Aquifer region in resolving conflicts between the ESA and state water rights and law will be encountered throughout the state. The Lone Star Chapter of the Sierra Club filed suit against the U.S. Fish & Wildlife Service in New Mexico seeking a court order that the Fish & Wildlife Service designate the Arkansas River Shiner as an endangered species. Groundwater users from the Ogallala Aquifer in the Panhandle of Texas were justifiably concerned that the listing of this species would result in limitations on groundwater withdrawals from a rule of capture resource. These types of conflicts will continue to arise throughout the state. Effective management decisions now, in anticipation of these conflicts, will result in far less dramatic and disruptive confrontations.

The process of determining how and to what extent federal mandates, and particularly the Endangered Species Act, are applied to established state surface and groundwater law is only just beginning. Texas water law in this area will likely continue to be written. Practitioners representing clients engaged in activities related to water resources, either surface or ground, must now consider potential conflicts between the Endangered Species Act and established rights under state law.

## **XVIII. THE FUTURE**

The law applicable to groundwater in Texas has never been more uncertain. It is clear that groundwater districts already in existence, and those created in the future, will represent the Legislature's preferred method of exercising regulatory control over unlimited groundwater withdrawals. Given the vastly increased powers of groundwater districts, and the until now infrequent exercise of groundwater district powers, conflicts between landowners exercising what they believe to be their property rights under the rule of capture and regulatory restrictions imposed by groundwater districts are inevitable. These conflicts will center on three important powers now vested in groundwater districts.

The power to limit groundwater withdrawals will, inevitably, when exercised, result in litigation by adversely affected landowners. While each case will be evaluated on the facts and circumstances particular to that geographic area and groundwater resource, it seems safe to say that the courts will generally sustain the Legislature's authority to empower a groundwater district, and the district's exercise of regulatory powers when rationally related and fairly applied to the goals of the district. Rules and decisions favoring one type of user over other types or rules adopted to frustrate existing or contemplated use will likely not be sustained.

The second area sure to generate conflict and litigation concerns the vast power of districts to collect user fees for the purpose of regulating groundwater withdrawals. Although addressed in *Beckendorff vs. Harris-Galveston Subsidence Dist.*, it would seem generally that districts will be permitted to establish user fees which support district operations but may be challenged if fees are used to regulate types of use or are used as a means of raising revenue.

The third area of inevitable conflict concerns groundwater districts' power (and inevitable political desire) to limit exportation or transfer of groundwater outside of the district. Given that many districts were created to protect a common resource relied upon by mostly rural and agricultural interests, the conflicts between small districts and growing non-agricultural demand seem inevitable.

While these battles will be fought in the Legislature and the courts, the Texas Supreme Court has served notice that absent effective legislative solutions, it may decide to abandon the rule of capture and replace it with the American, or reasonable use, rule. Does this mean that landowners adversely affected by a neighbor's pumping should pursue claims in district court in the hope that such claims will be recognized by a change in the law in the future? How can such a change be accomplished unless and until claims of this nature are made and pursued to the Texas Supreme Court? What criteria will the Supreme Court use in determining whether the Legislature has met the Court's goal of addressing the problems associated with unregulated exercise of rule of capture rights? Will the change apply in areas currently within the jurisdiction of underground water conservation districts? How will this affect existing or future users?

While it has taken nearly a century to accomplish significant change in Texas groundwater, the rule of capture is threatened, if not endangered. It is very likely that the pace of change will continue to accelerate. The SB 1 planning effort, the growing population and consequent water demand and the vast economic interests dependent upon reliable water sources require this change, while similarly requiring fairness, equity and a recognition of the long-term goal: the management of natural resources vital to the entire state in a manner that recognizes private ownership rights within a regulatory framework that promotes resource development and efficient use.

## **XIX. TRANSACTIONS AT THE WATER FRONTIER**

The San Antonio Water System recently concluded two major contracts involving acquisition of groundwater from Bastrop, Lee and Milam Counties. Both transactions are new to Texas.

In the first contract, SAWS and ALCOA have entered into an agreement pursuant to which ALCOA will supply to the San Antonio Water System up to 60,000 acre/feet of groundwater per year from properties owned by ALCOA and currently operated as a lignite mine. ALCOA currently produces in excess of 30,000 acre/feet per year of groundwater as a product of the process of mining available lignite for its aluminum smelting operation. This contract will obligate ALCOA to develop additional groundwater production in areas owned or controlled by ALCOA and operate the facilities necessary to convey it to a point of delivery.



In the second transaction, the San Antonio Water System acquired all the water rights associated with, and the right to withdraw groundwater from, properties currently owned by the electric utility owned by the City of San Antonio managed by the City Public Service Board. Coincidentally, City Public Service Board entered into a long-term lignite mining lease with ALCOA authorizing ALCOA to mine lignite on a CPS property. CPS reserved for the city, and has now conveyed to the San Antonio Water System the water rights and the right to receive water reserved in the lignite mining lease contract. City Public Service owns approximately 11,000 acres in Lee and Milam Counties from which an estimated 30,000 acre/feet of water per year could be produced.

Together, these two transactions could supply sufficient additional water to the City of San Antonio to meet the City's water needs for the next 25 years. The water rights acquisition agreement between the City Public Service Board and the San Antonio Water System is quite possibly the first of its kind.

## **XX. HOW MUCH IS WATER WORTH?**

The burning question on everyone's mind is: What is water worth? While it seems a simple question, the answer depends on so many variables that it cannot be answered without a frame of reference. Examination of other areas of the country where the water market has operated historically provides little guidance in valuing water resources in Texas.

There are a myriad of ways of valuing water and treatises have been written on preferred models for determining how water as a commodity should be valued. Obviously, one can look at the economic benefit derived from the use of the water, and value the water accordingly. This creates a wide disparity in the value of water used for commercial or industrial purposes vs. domestic or agricultural. Indeed, this wide disparity raises concern among agricultural and rural interests, given the inevitable economics of commodities moving to the highest willing buyer price; substantially more in the case of industry or water purveyor use.

The current state of Texas law prevents any kind of statewide analysis of unit value of water. For instance, permits to withdraw water from the lower Rio Grande have been transferred throughout the lower Rio Grande Valley for the last thirty years, and prices are reasonably well-defined. Similarly, a market has emerged in transferred Edwards Aquifer permit rights which have been leased and purchased for the last several years. Lease prices range from \$70 to \$80 per acre foot per year, while permanent acquisitions or transfers have been accomplished at \$700 an acre foot. Cities in the Panhandle and West Texas have either purchased real estate or acquired the right to produce water from real property by payment of some unit price to the landowner. These prices have varied from very low numbers (\$7 per acre foot) to reported numbers approaching \$100 per acre foot.

Many variables affect the value of groundwater owned by the surface landowner. Obviously, the location of the land in relation to a potential demand or buyer plays a huge role in the value of the water. The capital cost of facilities necessary to extract and deliver the water and the operating

costs of the those facilities also play a large role. Sustainability of production likewise is a factor or variable in determining the value of the groundwater resource. Numerous other factors affect value, including the existence of a groundwater district and the nature of rules regulating production, historical vs. projected use, impact on the resource and sustainability of the production. Water quality is also a huge variable. Nature and extent of treatment required can radically alter the value of a water resource to a potential buyer.

The City of San Antonio has been presented with a myriad of opportunities to acquire water under a variety of scenarios and circumstances, and therefore prices. The City has entered into an agreement with Alcoa and has purchased water rights owned by its sister city agency, the City Public Service Board, and Lee, Bastrop and Milam Counties, as indicated previously. The water rights acquisition from CPS was an outright purchase for cash and future payments valued at approximately \$4 million for land that is projected to produce 15,000 to 20,000 acre feet of water per year over a substantial period of time. The Alcoa contract contains a raw water charge which will be paid to Alcoa for each acre foot of water extracted. The per-acre foot unit cost begins at \$50 per acre foot and escalates during the term of the contract to reflect the future value of water. San Antonio has entered into two smaller groundwater delivery contracts from landowners in Northwest Bexar County. Although structured differently, San Antonio will pay the landowners a unit cost for water delivered. In one contract, the landowner will make all capital investments necessary to deliver the water to a delivery point in the San Antonio Water System structure. San Antonio will pay \$300 per acre foot for this delivered water (requiring no treatment). In a nearby location, San Antonio will invest the capital in the facilities necessary to extract and deliver the water on the land and pay the landowner a unit price of \$150 per acre foot. These unit prices reflect the location, ease and quality of the water for delivery to the San Antonio Water System.

## **XXI. WHAT IS THE FUTURE OF THE WATER MARKET?**

Recognition by the state and its citizens of the value of water will propel and fuel an emerging market in water resources. Governmental limitations on this market generally will frustrate, impair or artificially inflate the cost or value of water and must, over time, be reduced or eliminated. Restrictions on movement of surface water through ridiculous requirements for approval of interbasin transfers devalues historical, senior surface water rights throughout the State of Texas. Landowners with these permits cannot obtain their real value in today's Texas water market.

Groundwater resources likewise can be devalued by governmental restrictions or regulations in the form of groundwater district rules limiting or prohibiting (or punishing through fees) export of water from the district. These types of rules are a direct threat to landowners realizing the true value of the water resources they clearly own under Texas water law.

Given the types of transactions and projects that have been offered to the San Antonio Water System over the last several years, it is reasonable to assume that there will be a renewed focus on development of groundwater resources. We are beginning to see the development of landmen securing leases promising landowners royalty payments when deals are struck. Real estate

transactions are occurring that have more to do with water than with surface estate. Land owners' ability to participate in the market will be highly variable depending upon numerous factors, including whether the water has been produced by the landowner historically, the size of the area, the productivity of the resource, and proximity to demand.

Texas is decades away from a commodity-priced water market. Transactions and projects will help alleviate future demands, but organized, centralized or commodity-based selling and buying of water is impossible to achieve in the current regulatory and legal environment.

## **XXII. 76TH LEGISLATURE & 77TH LEGISLATURE**

The empowerment of groundwater districts accomplished in SB-1, together with the emphasis on long-range planning mandated by the 1997 legislation, led to a flurry of proposed groundwater districts being presented to the 76th Legislature. At least 22 separate groundwater districts, proposed in most cases along purely political subdivision lines, were authorized by legislation passed by the House and sent to the Senate. Senate Natural Resources Committee Chairman, Buster Brown, held these bills in committee, expressing concern over the scattered creation of groundwater districts and the goals of district sponsors. Indeed, the San Antonio Water Systems transactions with Alcoa and its sister agency, City Public Service Board of San Antonio, generated substantial debate about the need for groundwater districts in the counties where the water resources for these projects are located.

At the end of the session, the Senate agreed to a compromise whereby the majority of the districts were established on a temporary basis with somewhat limited powers and a requirement that the districts be re-authorized in the next legislative session. It is safe to assume that at least the Senate will look carefully at the performance of these districts in the interim, and their approach to water resource management in their geographic area.

Among the issues to be reviewed by the Senate Natural Resources Committee during the interim, is a charge to examine the current and future role of groundwater districts in management of groundwater resources in the State of Texas. The Legislature will be under pressure to create groundwater districts where none currently exist, given the Supreme Court's deference to the Texas Legislature and the need to address the concerns expressed by the Supreme Court in the absence of such legislation. It is also highly likely that a substantial debate will concern the geographic jurisdiction of these districts and the extent of the districts' powers to regulate transfers and exports of groundwater within and outside their boundaries.

Indeed, a senate sponsored groundwater "Stakeholders" group has been meeting in Austin throughout the spring and summer in an effort to address these and many other issues. Recommendations from this group may be before the Senate in early fall for action next spring.

Transactions completed and projects constructed prior to the creation of districts should be protected from future legislative changes, but this cannot be considered a certainty.

### **XXIII. CONCLUSION**

The water market in Texas groundwater and surface water rights is severely constrained by institutional limitations and regulatory requirements which must be overcome before water can be transferred from one user to another. Despite these limitations, a water market is emerging in the State of Texas. Creativity will dictate the success of surface water markets in accomplishing win-win situations for the various regions involved. Groundwater transactions can be anticipated to increase in frequency and scope and will generate additional debate concerning the need for or scope of governmental regulation. Texas' political leadership should resist the temptation to increase the burdens and restrictions on landowners' ability to obtain value for these resources.



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