

**WATER RIGHTS IN TEXAS:
OWNERSHIP, DOCUMENTATION
AND DEVELOPMENT**

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WATER RIGHTS IN TEXAS: OWNERSHIP, DOCUMENTATION AND DEVELOPMENT

I. INTRODUCTION

A. Private Rights – Private Transactions

This paper discusses the necessary requisites to own, document and develop water resources in the State of Texas. Specifically, I have focused on private transactions regarding water rights, and not on policy, governmental solutions or management of water resources. That is to say – there are numerous law reviews, seminar papers, articles and general topical material discussing the changing state of Texas water law and public policy. These papers are valuable in advancing the current public and private debate surrounding water and its conservation. But public policy is not the realm of the traditional *natural resource practitioner*. In addition, this paper does not address how water rights become originally vested in a landowner or permit holder. Rather, I have attempted to set forth an outline and framework for protecting and exploiting private property water rights already issued from the sovereign. To properly maximize one's water rights the treatment of such rights to logical rules of property law and documentation is imperative. Consequently, this article provides a comprehensive discussion of Texas water law as it relates to the ownership and transfer of surface water rights and to the reservation and conveyance of the groundwater estate.

For surface water, the State of Texas requires a water right document, usually a permit or certificate, issued by the Texas Natural Resource Conservation Commission (herein the "TNRCC") representing the privilege to use water from a certain river, lake or stream. Certain important exemptions to the permitted water rights framework are more fully discussed below.

For groundwater, Texas still enforces the absolute rule of capture, thereby dictating that one only needs fee title to the wellbore location and groundwater rights in and to the wellsite tract. The increasing proliferation of groundwater management districts, however, means that water pumpers must now acquire, secure and protect groundwater rights in large

acreage tracts directly proportional to their quantity of sustained pumping.

B. Transfers of Water Rights Apart From the Surface Estate are Increasing

Currently, surface water rights are increasing in economic value, because the amount of unappropriated State surface water is limited to population sparse and rainfall rich East Texas. In the growing population centers of Texas all surface water has been appropriated, meaning that the forecasted increase in demand will drive up the price of existing surface water rights. The transfer of surface water rights apart from the land that such rights have historically benefited, is prescribed and severely limited in the Texas Water Code and based on the type of right held by the permit owner. While some surface water rights may not be severed, others are transferred freely like any other property right.

As the private market for water in Texas develops, the economic value of groundwater rights also continues to monetize, and landowners are increasingly called upon to transfer water rights to third party developers. Thus, groundwater rights are important natural resources that a landowner may desire to sell, acquire, lease or manage separately from the surface estate. The creation of a separate perpetual groundwater estate in a particular tract of land requires a comprehensive segregation of surface estate rights normally associated with the ownership and production of water from underground sources. The legal ability to create a corporeal interest in groundwater, and the necessary elements of a groundwater conveyance instrument, form the major topics of discussion in the last half of this article.

C. Unit of Measure

All water rights authorizations and transfers deal in units of water not based on flow rates, which are either in gallons per minute (GPM) or cubic feet per second (CFS), but rather in a fixed volume of water denomination: the acre-foot. An acre-foot of water is that amount of water sufficient to cover one acre of land one foot deep. One acre-foot of water at standard temperature and atmosphere equals 325,851 gallons. Consequently, a reservoir capable of

holding 200-acre feet of water could be a 200 acre reservoir one foot deep; a 100-acre reservoir 2 feet deep; or a 10-acre reservoir 20 feet deep.

Governmental regulations concerning water rights often limit the number of acre-feet of water that can be taken from a particular point of withdrawal or well bore based on acre-feet per year. This establishes a flow rate or proration schedule.

D. Beneficial Use

All water taken and severed within the State of Texas must be put to a "beneficial use." Beneficial use is defined as:

"Use of the amount of water which is economically necessary for a purpose authorized by law, when reasonable intelligence and reasonable diligence are used in applying the water to that purpose and shall include conserved water." 30 TEX. ADMIN. CODE § 297.1(6) (2001); *see also* TEX. WATER CODE ANN. § 11.002(4) (Vernon 2000).

II. SURFACE WATER OWNERSHIP AND REGULATION

The entire water resources of the State of Texas are divided into three categories, which are subject to different legal rules depending on their classification. The first and most important resource is surface water, otherwise known as State surface water. State water is defined as:

"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, and the storm water, floodwater, and rainwater of every river, natural stream, canyon, ravine, depression, and watershed in the State..."

TEX. WATER CODE ANN. § 11.021(a) (Vernon 2000). Waters captured artificially behind dams or diverted into reservoirs are also surface waters.

The second category of water is diffused surface waters. These waters do not flow in any defined water course but rather cross the surface of the earth in unregulated ways, as water runs across a parking lot or over a farmer's field.

Typically, this water comes from storms or rainfall runoff. Once the runoff arrives in a defined water course, it automatically becomes State surface water. If the water seeps downward through the soils and reaches the water table below, it automatically becomes private groundwater.

The third category of water is commonly called groundwater or, as defined in the Texas Water Code, "underground water." This is water existing and percolating beneath the surface of the earth that is reduced to possession by pumping from water wells. Ownership documentation and development of groundwater resources is fully discussed in the second half of this paper.

Consequently, there are two distinct types of water subject to economic exploitation: surface water and groundwater. Surface water is that which can be seen and exists on the surface, and is confined in water courses, rivers, lakes, streams and other impoundments. It also includes water that may flow beneath the ground under such courses. The Texas Water Code in Chapter 11.021 reserves all surface waters to the State of Texas. The appropriation, impoundment, use, sale and lease of surface water is highly regulated and governed by specific case law, statutes and other rules. A rather complicated permit system for surface water exists under the Texas Water Code, which is administered by the Texas Natural Resource Conservation Commission. *See generally* TEX. WATER CODE ANN. § 11.001 *et seq.* (Vernon 2000).

Although a landowner does not own the surface water on or abutting his property, such owner may acquire the right (which may or may not be appurtenant to the permittee's land) from the State of Texas, by and through the TNRCC to withdraw water from a stream, creek, pond or lake, or to impound the water in a lake or pond.

To use, take or impound State waters, a person must acquire a permit to appropriate the State water. An appropriator is:

"[a] person who has made beneficial use of any water in a lawful manner under the provisions of any act of the legislature... or a person who makes or has made beneficial use of any water within the limitations of a

permit lawfully issued by the commission or one of its predecessors."

TEX. WATER CODE ANN. § 11.002(6) (Vernon 1988). The Texas Water Code further provides that:

"The right to the use of state water may be acquired by appropriation in the manner and for the purposes provided for by this chapter. When the right to use state water is lawfully acquired, it may be taken or diverted from its natural channel."

TEX. WATER CODE ANN. § 11.022 (Vernon 2000).

The Texas legislature has established an appropriative preference for surface water which starts with domestic and municipal uses, followed by industrial uses and then irrigation. Mining and recovery of minerals is the fourth most preferred use out of ten listed. Each application to the TNRCC for a permit to withdraw and use surface water is reviewed for administrative and technical requirements to evaluate its impact on other water rights, bays and estuaries within the river basin of origin. Other factors that the TNRCC uses in determining whether a permit may issue include its effect on other water rights, the bays and estuaries, conservation, water availability, public welfare, etc. *See generally*, 1 F. SKILLERN, TEX. WATER LAW § 4(B) (rev. ed. 1993).

Absent the specific exceptions discussed immediately below, surface waters may be captured, impounded, taken and used only with direct written authorization from the State of Texas through the TNRCC, or through a valid historical claim.

A. General Exemptions to TNRCC Permit Requirement

1. Domestic and Livestock Use

Water for livestock watering and normal household uses is exempt from the requirement to secure a permit from the TNRCC. TEX. WATER CODE ANN. § 11.303(l) (Vernon 2000). The taking or diverting of water must be done by landowners living adjacent to the waterway. This is the normal riparian right that was recognized under Spanish land grants and is considered a vested right that predates the prior appropriation system in Texas and is superior to

appropriative rights. *See* 30 TEX. ADMIN. CODE § 297.21(a) (2001). The amount of water that may be taken is based on a reasonableness standard, and this type of riparian right is not explicitly quantified. This right to take the State's surface water for domestic and livestock use without written authorization reflected in a permit or certificate is a property right that is appurtenant to the land adjacent to the water source. It is impossible for a seller of the land to reserve the domestic and livestock exemption and claim its use at other locations because § 297.21 limits the domestic and livestock use exemption to "land owned by the person and that is adjacent to the stream". *Id.*

2. Personal Stock Tanks

Many oil and gas and ranch law practitioners are often asked by their landowner clients whether they need a TNRCC permit for the large stock tank located on their property. Stock tanks, livestock stock tanks or other impoundments located entirely on private property do not require a permit from the TNRCC so long as the reservoir has an engineered capacity of 200-acre feet of water or less. The elements of the exemption are completely contained within the language of § 11.142(a) of the Water Code:

"Without obtaining a permit, a person may construct on his own property a dam or reservoir with normal storage of not more than 200-acre feet of water for domestic and livestock purposes."

TEX. WATER CODE ANN. § 11.142(a) (Vernon 2000). This exemption may not necessarily apply to reservoirs that dam a navigable stream as defined in the water code. 30 TEX. ADMIN. CODE § 297.21(c) (2001) ("Such dams may not be located on a navigable stream..."); *see also* *Garrison v. Bexar-Medina-Atascosa Counties Water Imp. Dist.*, 407 S.W.2d 771 (Tex. 1966). TNRCC regulations themselves contain other important factors: the water may not be marketed for use off of the property, such as in a public drinking water supply system. Domestic use is limited to watering of homestead lawns and water use in daily activities such as drinking, personal hygiene, cooking and cleaning. Livestock use is further limited to that water

used for open range watering of livestock. The impounded water may not be used for irrigation of growing crops or grasses. And, use of the water for irrigation of land and crops that will be subsequently used for pasturage of livestock does not constitute livestock use. If the water was indeed being used to irrigate crops for the feeding of cattle or otherwise, then a permit for the impoundment, regardless of the storage capacity, would be required. *See generally* 30 TEX. ADMIN. CODE 297.1(16) and (26) (2001) (definitions of domestic use and livestock use); 30 TEX. ADMIN. CODE § 297.21(d) (2001) (discussion of watering of range animals). As with the domestic and livestock exemption, the right to maintain a reservoir having a capacity of up to 200-acre feet of water is appurtenant to the land on which the reservoir is located and may not be specifically reserved or conveyed; nor may the water itself be specifically used and transferred. Quite simply, all water must be used beneficially on the land where the reservoir is located.

B. Water Rights and Permits

"State law requires a water right document for all other uses of surface water in Texas. None of these documents guarantees that water will always be available, but some of them provide more certainty than others. Each such document has a priority date assigned to it. The various types of water right documents are known as certificates of adjudication, permits, term permits and temporary permits." *Surface Water Rights in Texas: How They Work and What to do When They Don't*, TEXAS NATURAL RESOURCE CONSERVATION COMMISSION website: <<http://www.tnrcc.state.tx.us/admin/topdoc/gi/228/index/html>>.

A water right or permit once issued is considered real property. Surface water rights then are considered part of the corpus of real property. *Goodwin v. Hidalgo County Water Control & Imp. Dist.*, 58 S.W.2d 1092, 1094 (Tex.Civ.App.—San Antonio 1933, writ dis'm'd by agr.). Surface water rights may be held as tenants-in-common, and are subject to all of the normal legal rights of common ownership: use of the water, and the ability to make appropriate disposition of the common owner's share.

Republic Prod. Co. v. Collins, 7 S.W.2d 187 (Tex.Civ.App.—Eastland 1928, writ ref'd).

C. Certificates of Adjudication and TNRCC Permits

1. Certificate of Adjudication and Earlier Water Claims

In 1967, the Texas Legislature enacted the Water Rights Adjudication Act. *See* Act of April 13, 1967, 60th Leg., R.S., ch. 45; 1967 Tex. Gen. Laws 86. For twenty or so years following the Water Rights Adjudication Act, the Texas Water Commission, the predecessor agency to the TNRCC, conducted adjudications of all water rights and water rights claims existing prior to the date of the Act. The claims brought forth in 1967 were under Spanish and Mexican land grants, riparian rights and appropriative rights, both initial and after adoption of a permitting system. There are many excellent articles discussing the definitions and characteristics of water rights, the genesis of which are under pre-1967 Act's riparian or the appropriative schemes. *See* Robin A. Melvin, *Conveyance of Surface Water*, THE CHANGING FACE OF WATER RIGHTS IN TEXAS, State Bar of Texas, Tab 10 (2001); Glen Jarvis, *Fundamentals of Surface Water Law*, THE CHANGING FACE OF WATER RIGHTS IN TEXAS, State Bar of Texas, Tab 3 (2001). The Texas Water Commission adjudications were further subject to court claims and ultimately the water rights were deemed vested by issued certificates.

According to the TNRCC, over 10,000 claims to certificated water rights have been adjudicated.

Certificates of adjudication set forth the following elements:

- i. a reference to the final decree;
- ii. the name and address of the holder of the adjudicated right;
- iii. the priority, extent and purpose of the adjudicated right, and if the right is for irrigation, a description of the irrigated land; and
- iv. all other information in the decree relating to the adjudicated right.

TEX. WATER CODE ANN. § 11.323(b) (Vernon 2000).

All Certificates of Adjudication are to be recorded with the county clerk of each county in which the appropriation is made. TEX. WATER CODE ANN. § 11.324(a) (Vernon 2000). Interestingly, the certificate is to be indexed by the county clerk under the name of the holder of the certificate and under the name of the stream or source of water supply. *See Id.* at § 11.324(b).

2. Permits

After Certificates of Adjudication were finalized, all significant surface water rights in the State of Texas are represented by either a Certificate of Adjudication (a "Certificate") or a permit issued by the Texas Water Commission, or later, the TNRCC (a "Permit"). Without a certified filing or Certificate of Adjudication one must hold a permit to appropriate State surface water or even begin the construction of water works for storing, taking or diversion of State surface water. TEX. WATER CODE ANN. § 11.121 (Vernon 2000).

While the process of adjudicating claims for certificated water rights involved evaluating the riparian rights and appropriation claims under Spanish, Mexican and Texan laws, and the use by owners thereunder, permits were and are issued under a different standard. Permits are based on the availability of water within a river basin.

Permits issued by the TNRCC set forth the following elements:

- i. the name of the person to whom the permit is issued;
- ii. the date the permit is issued;
- iii. the date the original application is filed;
- iv. the use or purpose for which the appropriation is to be made;
- v. the amount or volume of water authorized to be appropriated for each purpose;
- vi. a general description of the source or supply from which the appropriation is to be made; and
- vii. other information.

TEX. WATER CODE ANN. § 11.135 (Vernon 2000). If the appropriation is for irrigation, the TNRCC is to also provide in the permit a

description and statement of the approximate area of the land to be irrigated. *Id.* at § 11.135(c). In a like manner as the Certificate of Adjudication, the Permit is to be recorded in the office of the county clerk of the county in which the appropriation (withdrawal) is to be made. TEX. WATER CODE ANN. § 11.136(a) (Vernon 2000). The permit is also to be indexed alphabetically under the name of the applicant and the stream or source of the water supply. *Id.* at § 11.136(b). The Texas Water Code explicitly establishes that the recording of a permit is constructive notice of all rights arising under filing of the application and the issuance of the permit. *Id.* at § 11.136(c)(3).

3. Regulation of Ownership of Certificates and Permits by the TNRCC

A Certificate of Adjudication and TNRCC Permit should be considered a valuable title document, an original of which should be recorded in the official public records of the counties where all or part of the land to which the certificate is appurtenant is located. The Certificate or Permit evidences the landowner's ownership of all water rights represented by the document.

Certificates of Adjudication and Permits are both managed by the TNRCC through its Water Permits and Resource Management Division, Water Rights Permitting and Availability Section. The Certificate of Adjudication or Permit both reflect the right to and manner in which a holder may take, withdraw, impound, use and ultimately return to a water body, state surface water. In addition, the permit may often dictate the place of use of the water. Collectively, these limitations and rights are commonly known as surface water rights.

Both Permits and Certificates of Adjudication are issued in perpetuity and they may be bought and sold like all other personal and real property interests.

The holder of a Permit, certified filing or a Certificate of Adjudication may change any of the criteria of the Certificate or Permit by application to the TNRCC. Specifically, permission must be obtained to change the place of use, purpose of use, point of diversion, rate of diversion, acreage to be irrigated or otherwise alter the water right. TEX. WATER CODE ANN.

§ 11.122 (Vernon 2000). Each time there is a sale or transfer of the Permit or Certificate of Adjudication, a written and TNRCC issued amendment to the water right will be required. Amendments to water rights that increase the amount of water authorized to be diverted or the rate of the diversion generally constitute whole new agency proceedings, while all other changes are generally granted if they do not cause adverse impact on other water rights holders or the environment in the watershed of greater magnitude than under circumstances upon which the Permit, certified filing or Certificate was exercised prior to the request. *See Id.* at 11.122(b).

D. Conveyance of Surface Water Rights

Section 297 of the Texas Natural Resource Conservation Commission Rules in Subchapter H, entitled *Conveyance of Land and Water Rights*, sets forth all of the pertinent rules relating to the transfer of surface water rights. First and foremost, the right to use water for the purpose of irrigation is appurtenant to the land authorized to be irrigated. 30 TEX. ADMIN. CODE § 297.81(a) (2001). As more fully discussed in Paragraph 2 below, a conveyance of land with an appurtenant water right also conveys the water right unless expressly reserved or excepted. *Id.*

1. Irrigation, Municipal and Industrial Use

All water from whatever source, be it surface water or groundwater, must be put to a beneficial use. Any use is beneficial so long as the water is not intentionally wasted or used solely to injure a neighbor. However, Certificates and Permits concerning surface water explicitly define the manner of beneficial use as either for irrigation, for municipal purposes, or for industrial purposes. The latter two are known as M&I use. The type of Certificate or Permit, irrigation or M&I, dictates the real property rules for ownership, documentation of subsequent transfers, and terms of development of the water right as a natural resource.

The impoundment or use of water for irrigation, municipal or industrial purposes, as more particularly set forth in the Certificate or

water rights Permit, may or may not be appurtenant to a specific tract of land.

2. Irrigation Use of Surface Water is Appurtenant to Real Property

Generally, the impoundment and use of water for irrigation purposes are water rights appurtenant to the specific lands set forth in the permit which are to be irrigated with the water. All of the water represented by the certificate or permit must be impounded and used on the specific lands described in the certificate or permit. Although the water itself must be used on specific lands, the water rights represented by the certificate or permit are considered by the TNRCC to be appurtenant to all of the land held by the landowner under a normal chain of title. For example, if a permit authorizes the irrigation of 100 acres that are located within the 1,000-acre Blackacre tract owned by Mr. Jones, then the permit is considered appurtenant to all of Blackacre and not to the specific 100 acres. To get an idea of how the TNRCC considers the water rights represented by the certificate to be appurtenant to all of Blackacre, consider the fact that the landowner can currently irrigate only the lands specified in the permit, being the 100 acres described in the permit. The specified irrigated lands within all of Blackacre to which the certificate or permit is appurtenant can be changed, but only after application to the TNRCC and subsequent approval. The certificate or permit, therefore, represents authorization to store and take the stated sum of water and use it solely for irrigation purposes on the identified land. Such aggregate water rights are, however, appurtenant to the entirety of Blackacre. To state it another way, the certified or permitted rights to take and use State of Texas water from the specified water body attach to an undivided part of the 1,000-acre Blackacre farm. The water itself will need to be used for irrigation purposes only on the 100 acres but, as aforesaid, the specific tract which may be irrigated may be changed upon an appropriate application and approval by TNRCC.

Any conveyance of all or any portion of Blackacre will automatically transfer a proportionate share of the surface water rights to the new owner unless the Grantor specifies otherwise in their conveyance instrument. In

other words, the water rights are appurtenant to all of Blackacre, and any future sale or transfer will include proportionate water rights to store water or irrigate the lands with State water, unless the Grantor specifically reserves such water rights. However, in order to specifically reserve irrigated water rights, one must retain other lands on or near the same river or water body which will be subject to irrigation.

"Riparian rights arise out of the ownership of land through or by which a stream of water flows, which rights cannot extend beyond the original survey as granted by the government." *Sun Co. v. Gibson*, 295 F. 118 (5th Cir. 1920), citing *Watkins Land Co. v. Clements*, 98 Tex. 578, 86 S.W. 733. Riparian and littoral rights being real property attributes of tracts of land crossed or bordered by surface water, are subject to conveyance. *City of Corpus Christi v. McLaughlin*, 147 S.W.2d 576 (Tex.Civ.App.—El Paso, 1940, writ dism'd).

There are two broad exceptions to the rule that irrigation use of surface water is appurtenant to real property and passes with such property in the absence of an explicit reservation. Irrigation water rights do not attach to irrigated land when held by a water corporation, water district, river authority or other governmental entity authorized to supply water to others. 30 TEX. ADMIN. CODE § 297.81(b) (2001). These types of water rights may be transferred only by express written conveyance. In addition, a water right may have been granted to a tenant farmer, leasehold owner or other possessory party of land that is irrigated but not to the fee owner. If the water right is in the name of the tenant farmer instead of the record fee title holder of the irrigated land, then the water right is considered personal property of the named permittee and does not pass with the conveyance of the underlying land even if such permit describes the land to be irrigated by the permit. 30 TEX. ADMIN. CODE § 297.81(a) (2001).

3. Municipal and Industrial Water is Personal Property Right

Of course, water rights may be issued for purposes other than irrigation and most municipalities and large industries that directly withdraw water from waterways have permitted water rights from the TNRCC. Although these

permits also list places of use and points of withdrawal, the water right may be conveyed separately from the land. This transfer right may be fully exercised, but the transferability may be of little value in that the water right must continue to be utilized in accordance with the terms and conditions of the original permit including compliance, the point of withdrawal, place of use and rate of diversion. 30 TEX. ADMIN. CODE § 297.81(d) (2001). If a transfer is made without changing the characteristics of the permit then the transferee need only inform the TNRCC of the transfer. 30 TEX. ADMIN. CODE § 297.82 (2001). If a new owner proposes to move the point of withdrawal or place of use, then the amendment of permit process must be commenced with the TNRCC.

A seller of municipal and industrial surface water rights may wish to make clear in the purchase and sale documentation or in the water deed itself, that the water right is given AS IS, WHERE IS, and in accordance with the terms and conditions of the Certificate of Adjudication or Permit. As such, all risk of loss resulting in a change of the amendment or in a degradation of the water rights will be borne by the purchaser.

Even though these water rights are considered personal and not appurtenant to real property, the TNRCC requires a written instrument evidencing the transfer of the water right to be recorded in the office of the county clerk. Thereafter, certified copies of the recorded instruments establishing the complete chain of title from the original permit holder on the Certificate of Adjudication or Permit through the new owner should be filed with the TNRCC, along with a completed change of ownership form and required fee. See 30 TEX. ADMIN. CODE § 297.83 (2001) (recording conveyances of water rights).

E. Record Title; Legal Title

1. Title

Title to surface water rights is represented by the Certificate of Adjudication (issued by the Texas Water Commission) or the TNRCC permit held by the named owner. TEX. WATER CODE ANN. § 11.121 (Vernon 2000). As with all regulatory permit issues, appropriate changes in ownership and use may not have been reflected on the records of the issuing agency.

The TNRCC Water Rights Division maintains a record of all Certificates of Adjudication and all Permits. Much like the General Land Office with land patents issued by the sovereign, the TNRCC records maintained at the Central Records Section in Austin are dispositive of record, but not necessarily legal, ownership. *c.f.* TEX. WATER CODE ANN. § 11.136(c)(3) (Vernon 2000). The Agency's central files for currently issued surface water rights will contain the historical background information and prior claims upon which the Certificate or Permit was based, as well as any authorized amendments, new owners or changes through a current date.

Ownership changes of a surface water right however effectuated, even by transfer, assignment or through sale of the underlying land to which the right is appurtenant, must be reported to the Texas Natural Resource Conservation Commission. *See* 30 TEX. ADMIN. CODE § 297.82 (2001). As mentioned above, irrigation rights are statutorily and regulatorily deemed to be appurtenant to the land irrigated with the water withdrawn under the Permit. *See* 30 TEX. ADMIN. CODE § 297.81(a) (2001).

2. Due Diligence

In summary, legal title and possession to irrigation water rights generally pass with deeded and testamentary transfers of the underlying land unless specifically reserved or conveyed. And, other types of surface water rights are transferred by deeds, assignment, bill-of-sale or property transfer instruments recorded in the Texas county where the point of withdrawal is located. A thorough land title search at the county level must be complemented by a review of the central files of the TNRCC. Any discrepancies in title should be cured by securing appropriate certified copies of the change instruments from the county clerk's office and submitting them to the Water Rights Division for acceptance. Record transfer at the TNRCC is not complete until an approval letter or amended permit is issued by the State.

F. Surface Water Deeds and Assignments

How does a current landowner effectuate a reservation or conveyance of surface water rights separate and apart from the land? Chapter 30 of the Texas Administrative Code,

§ 297.81(d) (West 2001) fully contemplates segregated transfers and sets forth the requirements for a transfer to be "accepted" or recognized by the TNRCC. A surface water rights reservation or conveyance starts with specific language of grant or reservation, if the transfer occurs through a land title document. In other words, the seller must use present words of grant such as "give, grant, sell and convey," indicate the name and address of the grantee, and describe the water rights being conveyed. TEX. PROP. CODE ANN. §§ 5.021 and 5.022 (Vernon 1984). Language such as the following is sufficient for a description of the property transferred:

"All right, title and interest in and to that certain Certificate of Adjudication No. 74-1234 dated January 24, 1984, issued by the Texas Water Commission (now the Texas Natural Resource Conservation Commission) to Farmer Brown concerning the right to appropriate surface waters of the State of Texas in the Nueces River Basin for irrigation purposes on the lands more particularly described therein, a copy of which is attached hereto as Exhibit "A" and made a part hereof for all purposes."

If the water rights are appurtenant to specific lands, the description may continue with a reference to the entirety of the lands to which the water rights are currently appurtenant and would need a description of the lands that are to be partitioned out to the buyer. Of course, because a water right is an easement and passes with title to the land, a conveyance of land in the absence of a reservation or exception, includes all of the water rights. *Graham v. Kuzmich*, 876 S.W.2d 446 (Tex.App.—Corpus Christi 1994, n.w.h.) (holding that deed of trust to trustee transferred land and all associated surface water rights even when instrument was silent as to water rights). In *Graham*, the purchaser at the trustee's sale acquired fee title to the land and Certificate water rights because in the underlying deed of trust instrument, the Mortgagor did not reserve the Certificate or water rights. This case is instructive because earlier transactions in the chain of title had segregated the water rights from the land, but ultimately merged them back in the Mortgage.

For non-irrigation water rights (i.e. municipal or industrial uses), the conveyance or reservation may be handled by a water deed or assignment of water rights merely describing all or the appurtenant portion of the transferred right. Forms of such conveyance documents can be found at Rhonda G. Jolley, *Methods of Conveyance and Documentation*, THE CHANGING FACE OF WATER RIGHTS IN TEXAS, State Bar of Texas, Tab 13 (2001). Municipal and industrial sales often transfer a set amount or portion of the yearly withdrawal amount. This gives the grantee a right to take the stated amount of water.

G. TNRCC Regulatory Schemes Ratify Private Transactions Involving Surface Water Rights

Section 11.040 of the Texas Water Code clarifies that a permanent water right is a real property interest that passes with the land. Specifically, the water right is denominated an easement. As an easement, it is an appurtenant right that is automatically conveyed with the dominant estate in conveyance instruments. TEX. WATER CODE ANN. § 11.040(a) (Vernon 2000) ("A permanent water right is an easement and passes with the title to land"). See also *Edinburg Irr. Co. v. Paschen*, 235 S.W. 1088, 1090 (Tex. 1922). The permitted or certificated surface water right "constitutes a vested interest in or title to the use of the water thereby appropriated. Which interest or title is assignable (except where attaching to specific land)..."; *Clark v. Briscoe Irr. Co.*, 200 S.W.2d 674, 679 (Tex.Civ.App.—Austin 1947, writ dismissed).

The Texas Water Code further provides that the instruments conveying water rights may be recorded as any other instrument relating to a conveyance of land. TEX. WATER CODE ANN. § 11.040(b) (Vernon 2000). Consequently, all TNRCC water rights permits should be recorded in the official public records of the county or counties where: (i) the land to which the water right is appurtenant is located, i.e. the point of use, and (ii) the point of withdrawal of the physical water from the state water body.

H. Production, Treatment, Storage and Transportation Facilities

State surface water is obviously retrieved or withdrawn from a body of State water, usually a lake or river. These locations offer unfettered access because by their very nature they are public. An appropriator holding of a Certificate or Permit may have a more onerous task in locating and establishing the treatment, storage and transportation facilities necessary to take and move the water to its ultimate place of use or sale. In other words, the delivery of the physical water to a specified location may act as the greatest factor in establishing the marketability of a water right. If an amendment to the point of withdrawal under a TNRCC permit is not available, then a permit holder may need to acquire rights-of-way or easements for facilities involved in the production, storage and treatment of the State surface water. Surface water rights holders can exercise eminent domain power under the Texas Water Code if explicitly authorized by the TNRCC to appropriate State surface water.

Normal rights and powers appurtenant to the appropriation of State water rights attach to TNRCC appropriation permits associated with a particular tract of land or point of withdrawal. The Texas Water Code in § 11.033 entitled, *Eminent Domain*, provides that:

"The right to take water necessary for domestic and municipal supply purposes is primary and fundamental, and the right to recover from other uses water which is essential to domestic and municipal supply purposes is paramount and unquestioned in the policy of the state. All political subdivisions of the state and constitutional governmental agencies exercising delegated legislative powers shall have the power of eminent domain to be exercised as provided by law for domestic, municipal and manufacturing uses, and for other purposes authorized by this code, including irrigation of land for all requirements of agricultural employment."

TEX. WATER CODE ANN. § 11.033 (Vernon 2000). This specific statutory grant of eminent domain power is the basis upon which all general law districts, political subdivisions,

including municipalities and other governmental agencies, exercise eminent domain in condemning lands for reservoirs, transportation and interconnection facilities and other manners of providing water to retail customers. Unfortunately, § 11.033 does not grant private persons or corporations the power to exercise eminent domain. However, § 11.035 entitled, *Condemnation of Private Property*, does so provide. Section 11.035 reads in pertinent part:

"(a) An appropriator may obtain rights-of-way over private land and may obtain the land necessary for pumping plants, intakes, headgates, and storage reservoirs by condemnation.

(b) The party obtaining private property by condemnation shall cause damages to be assessed and paid for as provided by the statutes of this state relating to eminent domain.

(c) If the party exercising the power granted by this section is not a corporation, district, city, or town, he shall apply to the commission for the condemnation.

(d) The executive director shall have the proposed condemnation investigated. After the investigation, the commission may give notice to the party owning the land proposed to be condemned and hold a hearing on the proposed condemnation."

TEX. WATER CODE ANN. § 11.035(a-d) (Vernon 2000). It is unclear if the reference in Subsection (c) of § 11.035 to a "corporation" means a private corporation or a 'water supply corporation,' as defined in various other parts of the Texas Water Code. A water supply corporation is a non-profit, member owned, member controlled corporation, organized under a specific legislative grant. See e.g. TEX. WATER CODE ANN. § 13.002 (24) (Vernon 2000). Regardless of whether or not a particular landowner would be considered a corporation within the meaning of Subsection (c), any order for condemnation issued by the TNRCC by and in the name of the State of Texas for the use and benefit of a particular surface water rights permit would be an appurtenant benefit of the

withdrawal right allowing the actual taking, handling and transportation of the water product.

Consequently, any off-site production, treatment, storage and transportation facilities can be acquired through private negotiation or through the use of State condemnation powers. Surface water rights transfers from the original appropriator to the new owner should incorporate the record transfer of these off-site facilities through appropriate deeds and other transfer instruments because they are appurtenant rights-of-way that benefit the actual appropriation of State water.

III. GROUNDWATER OWNERSHIP AND REGULATION

A. Groundwater Ownership

Water found beneath the surface of the ground may be categorized as (i) percolating groundwater, (ii) waters which are part of the underflow of a surface river, or (iii) waters which constitute an underground stream. 1 F. Skillern, TEXAS WATER LAW 5 (rev. ed. 1993). The distinction between water from a well that is drawing water from an underground stream and true groundwater is unclear. Water from an underground stream is State water and would probably be subject to the surface water permitting laws of the Texas Natural Resource Conservation Commission. *Texas Co. v. Burkett*, 117 Tex. 16, 296 S.W. 273 (1927). Waters which are in the ground but which flow under a river ("underflow") are also classified as surface water. TEX. WATER CODE ANN. § 11.021(a) (Vernon 2000).

Percolating groundwaters move in all directions through the soil into underground aquifers, formations and traps. In this way, groundwater is geologically and hydrologically like oil and gas. It exists in and between formations, is susceptible to drainage and may be pumped to the surface. The major difference is that it is not finite under the land, but is rather recharged, supplemented and replaced by a variety of mechanisms. Groundwater is statutorily defined as the "water percolating below the surface of the earth." TEX. WATER CODE ANN. §§ 35.002(5) and 36.001(5) (Vernon 2000). It is this type of groundwater - percolating groundwater - that comprises the

greatest source of water for private bartering and which is, for the present, the least regulated.

The distinction in the law between surface and groundwater is based on the fact that surface waters are known and quantifiable such that planning decisions and allocations can be made and implemented. *See e.g. Acton v. Blundell*, 12 Mees. & W. 324, 152 Eng. Repts. 1223 (1843). Today, most conservationists agree that when managing the entire water resources of a geographic area, the difference between surface water and groundwater is negligible because groundwater often is connected hydrologically to surface water, and regulation of one places demands on the other. *See e.g. Note: Obsolescence, Environmental Endangerment and Possible Federal Intervention Compelled Reformation of Texas Groundwater Law*, 32 S. TEX. L. REV. 641 (1991); *see also*, Behrens & Dore, *Rights of Landowners to Percolating Groundwater in Texas*, 32 S. TEX. L. REV. 185, 187-193 (1991). Many western states now manage groundwater in conjunction with surface water.

Texas groundwater law is both separate and distinct from surface water law, and groundwater is currently much more susceptible to economic exploitation. The State of Texas has not declared ownership of and does not seek, at this time, to significantly regulate ownership of groundwater. *See* TEX. WATER CODE ANN. § 36.002 (Vernon 2000). The Edwards Aquifer Authority is the one exception in Texas to the general rule of minimal regulation. The Authority has broad powers to regulate new wells and pumpage, including mandating a prior appropriative scheme. In addition, as is discussed more fully below, the law creating the Authority legislatively prescribes various types of conveyances.

B. All Underground Water is Groundwater

Until recently, the distinction between groundwater and surface water has been a matter of contention. Today, except where the legislature has explicitly determined otherwise, agencies attempting to establish regulatory authority over underground water (claiming that such water is surface water in the form of an underground stream or underflow) have the burden to prove the location, flow, route, nature

and other factors that are normally considered with a surface river. Therefore, it is a strong, almost conclusive presumption that all groundwaters are percolating waters and, thus, constitute private groundwater in the normal sense.

Springs and the headwaters of streams may constitute the only groundwater source that is excepted from the presumption that any water that can be brought up through a well is private groundwater. Any naturally occurring spring which creates the headwaters of a surface watercourse is governed by Texas surface water law, and not by groundwater law. *Fleming v. Davis*, 37 Tex. 173 (1872-73); and *Bartley v. Sone*, 527 S.W.2d 754 (Tex.Civ.App.—San Antonio 1974, writ ref'd n.r.e.).

One should note, however, that wells or springs located near and in communication with a headwaters source are not necessarily headwaters, such that they may not be subject to surface water regulations. *See Pecos County Water Control and Improvement Dist. No. 1 v. Williams*, 271 S.W.2d 503 (Tex.Civ.App.—El Paso 1954, writ ref'd n.r.e.). Even springs that provide a substantial amount but not all of the waters for a creek have been held to be groundwaters. *See Denis v. Kickapoo Land Co.*, 771 S.W.2d 235 (Tex. App.—Austin 1989, writ denied).

C. Absolute Rule of Capture

Texas courts have generally allowed the surface owner to claim ownership of all of the groundwater that he captured from beneath his land pursuant to the English common law or the absolute ownership rule adopted in the case of *Houston & T.C. Ry. Co. v. East*, 98 Tex. 146, 81 S.W. 279 (1904). A corollary to the absolute ownership of groundwater is the right of the landowner to capture and reduce such water to possession. *City of Sherman v. Public Utility Commission*, 643 S.W.2d 681 (Tex. 1983). Although the English common law rule has been rejected or modified in almost every jurisdiction, Texas has held fast to the rule that allows the landowner to utilize all water that is captured from beneath his surface. Groundwater is, then, subject to the absolute rule of capture. The rule of capture is a rule of non-liability concerning the drainage of water from beneath another's

land and is not a property right. Therefore, the Texas Supreme Court or the Texas Legislature could at any time abolish or modify this rule of non-liability. At this time, however, groundwater is still subject to the absolute control of the surface owner of the land under which it flows or is located. See *City of Corpus Christi v. City of Pleasanton*, 154 Tex. 289, 276 S.W.2d 798, 800-801 (1955). The only private limitation on the landowner's right to withdraw water is the slight risk of liability for the subsidence of an adjoining owner's land caused by the negligent, willful, wasteful or malicious withdrawal of water. *Friendswood Development Co. v. Smith-Southwest Indus.*, 576 S.W.2d 21, 30 (Tex. 1978).

The only requirement for the right to capture groundwater is that it be put to some beneficial use. Any use is beneficial so long as the water is not intentionally wasted or used solely to injure a neighbor. Stated another way, the absolute rule of capture allows a landowner to appropriate for his or his assigns' use, all water, as long as this is done without malice or pure waste. Generally, a landowner who has water wells located on his property is free to take as much water as he would like and to take more than his "fair share," without liability to any adjoining owner for drainage, and without liability for hindering the recharge of the reservoir. Groundwater and its absolute rule of capture does not have attendant correlative rights that is, some obligation and duty to manage the underlying resource with prudence. It is important to note that the absolute ownership rule of Texas groundwater has been intensively reviewed and maintained by the Texas Supreme Court in *Sipriano, et al. v. Great Spring Waters of America, Inc. a/k/a Ozarka Natural Spring Water Company*, 1 S.W.3d 75 (Tex. 1999). Nonetheless, and perhaps more importantly, the Texas Supreme Court has recognized the Texas Legislature's authority to restrict and regulate groundwater appropriation. See *Friendswood Dev. Co. v. Smith-Southwest Indus., Inc.*; 576 S.W.2d 21 (Tex. 1978) (recognizing ground-water property rights are subject to reasonable police power regulations under legislative authority to promote conservation and prevent injurious subsidence); *Adjudication of Water Rights of Upper*

Guadalupe Segment of Upper River Basin, 642 S.W.2d 438, 444 (Tex. 1982) (holding that vested riparian rights - surface water rights - are subject to reasonable regulations under the police power of the State).

In adjudicating the constitutionality of the Edwards Aquifer Act and regulation of groundwater from the Edwards Aquifer, the Texas Supreme Court held that "the State has the right to regulate use of underground water." *Barshop v. Medina Underground Water Conservation Dist.*, 925 S.W.2d 618 (Tex. 1996) (not resolving when regulation becomes an invasion of property rights in underground water). Consequently, any number of different permit or appropriation systems regulating groundwater may be constitutional if passed by the Texas Legislature.

D. Groundwater Conservation Districts

Regulation of groundwater is constitutionally authorized, as is conservation and development of all natural resources of Texas, and the preservation and conservation of such natural resources are declared public rights and duties. TEX. CONST. art. XVI, § 59(a); *Berkendorf v. Harris-Galveston Coastal Subsidence Dist.* 563 S.W.2d 239 (Tex. 1978). The only true governmental regulation concerning groundwater comes from a groundwater conservation district or other similarly situated governmental conservation district. These entities may limit the number of wells by permit. They may institute spacing and proration formulae, and they may regulate withdrawal rates (i.e., production). In addition, the withdrawal of groundwater is subject to certain Texas Natural Resource Conservation Commission rules addressing groundwater quality. See generally, 30 TEX. ADMIN. CODE § 290 et seq. (2001). The most significant regulation of groundwater, however, is conducted by groundwater conservation districts. For instance, the following governmental districts are currently regulating groundwater production:

1. Edwards Aquifer Authority;
2. Barton Springs - Edwards Aquifer Conservation District;

3. Hickory Underground Water Conservation District No. 1;
4. Panhandle Groundwater Conservation District No. 3; and
5. Harris - Galveston Coastal Subsidence District.

The first legislative endeavor to regulate groundwater in any significant way occurred in 1949, when the creation of underground water conservation districts were authorized. See TEX. WATER CODE ANN. Chapter 52 and statutes codified therein. Chapter 52 was repealed in 1995 and replaced by Chapter 36 of the Texas Water Code. Chapter 36 of the Texas Water Code, forms the basis of Texas groundwater regulation as it relates to the drilling, production, sale and transfer (export and use outside of the district boundaries) of private water. Chapter 36, entitled *Groundwater Conservation Districts*, deals explicitly with underground water conservation districts that may limit, to some extent, wellsite locations and pumpage. See generally TEX. WATER CODE ANN. CHAPTER 36 (Vernon 2000).

In essence, the Texas Water Code encourages residents within a defined geographical area to form local underground water conservation districts. The Texas Natural Resource Conservation Commission is also given the responsibility of identifying critical needs areas and encouraging the formation of such districts. This is accomplished through the TNRCC's suspension of Texas Water Development Board funds for use in areas in which a district was recommended, but in which the voters did not adopt the recommendation. Without getting into the complexities of groundwater regulation and its constitutionality, it can be said that, in general, underground water districts and the rules promulgated thereby are constitutional. See *Beckendorff v. Harris - Galveston Coastal Subsidence Dist.*, 558 S.W.2d 75 (Tex.Civ.App.—Houston [14th Dist.] 1977), *aff'd*, 563 S.W.2d 239 (Tex. 1978); *Barshop v. Medina County Underground Water Conservation Dist.*, 925 S.W.2d 618 (Tex. 1996).

This paper will not address the specific statutory authority of groundwater conservation districts other than to point out the limits they

may impose on the withdrawal of water and the sale of water rights under contract, lease or conveyance. Groundwater conservation districts regulate withdrawal by requiring permits for the drilling, equipping or completing of wells or for substantially altering the size of wells and pumps. Chapter 36 of the Texas Water Code, states that groundwater conservation districts are:

"the state's preferred method of groundwater management through rules developed, adopted, and promulgated by a district...."

TEX. WATER CODE ANN. § 36.0015 (Vernon 2001).

E. Regulatory Schemes Ratify Private Ownership of Groundwater Rights

Groundwater management by the State does not mean that the State is attempting to displace private ownership of water. Rather, Section 36.002 specifically validates private ownership of groundwater by stating:

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

TEX. WATER CODE ANN. § 36.002 (Vernon 2001).

Consequently, the basic regulatory function of a groundwater conservation district is carried out by the permitting of wells. Districts are required to issue permits for the drilling, equipping or completing of wells or for substantially altering the size of wells or well pumps. TEX. WATER CODE ANN. § 36.113 (Vernon 2000). Perhaps the most important aspect of groundwater conservation districts is their regulation of drilling and production in substantially the same way as the regulation of oil and gas production by the Railroad Commission. A district may promulgate rules regulating the spacing of water wells and the production from such wells:

"in order to minimize as far as practicable the draw down of the water table or the reduction - of artesian pressure, to control subsidence, or to prevent waste."

TEX. WATER CODE ANN. § 36.116 (Vernon 2000).

In addition, the most recent Legislature amended § 36.101 to explicitly authorize rules based on tract size and the spacing of wells:

"A district may 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...."

TEX. WATER CODE ANN. § 36.101 (Vernon 2001).

This change to Chapter 36 of the Water Code was a reaction to *South Plains Lamesa Railroad, Ltd. v. High Plains Underground Water Conservation District No. 1*, 2001 WL 387386 (Tex.App.—Amarillo 2001, no pet. h.), in which the appeals courts struck down a tract size proration rule based on the rule of capture and the absence of explicit delegation of such power by the Legislature to groundwater districts.

No landowner, assignee or lessee may drill a well, alter the size of a well or operate a well without first obtaining a permit from the groundwater conservation district, if one exists for the area in question. TEX. WATER CODE ANN. § 36.115 (Vernon 2000). However, there are numerous exemptions from the drilling and operating permit requirement of Chapter 36. The following are statutory exemptions, but each groundwater conservation district may promulgate its own exceptions:

1. Wells that produce less than 25,000 gallons of water a day;
2. Wells that supply domestic water for ten or fewer family households;
3. Wells used to provide water for feeding livestock, poultry or used in connection with farming or ranching operations;
4. Wells used to supply water for oil and gas activities; and
5. Jet wells for normal, domestic needs.

TEX. WATER CODE ANN. § 36.117(a) (1-5) (Vernon 2001).

The first step in severing or leasing water rights is to determine whether a groundwater conservation district exists and has jurisdiction over the specific property involved. The legislature has allowed districts to promulgate rules requiring a person to obtain a permit before transferring produced groundwater out of the district boundaries. TEX. WATER CODE ANN. § 36.122 (Vernon 2000). The permit to transport would be a necessary curative item before the leased water could be fully severed and sold. Second, groundwater conservation districts may establish acreage allocation formulae. For instance, under the Gonzales County Underground Water Conservation District Rules, the maximum allowable production rate from a single well is based on the amount of acreage prescribed for or dedicated to a particular well. This is based on district rules which state:

"The maximum production for a tract of land shall not exceed two-acre feet of water per acre of land owned per year, nor shall the pumping capacity of the well exceed five (5) gallons per minute per acre of land."

If such production or capacity rules are in effect, then water rights pertaining to a significant amount of acreage will be required in order to permit and produce a commercial well or well field because production is directly linked to acreage dedicated to a particular well. Simple rules such as this, promulgated by groundwater management districts, are vitiating reliance on the rule of capture. With a groundwater conservation district in place, a water purveyor or marketer must secure groundwater rights in large tracts of land to ensure legally sustainable production yields from single production wellsites.

IV. GROUNDWATER RIGHTS ARE HELD BY THE OWNER OF THE SURFACE ESTATE

A. Landowners Hold Title to All Groundwater Rights Appurtenant to and Beneath the Land, and All Water

Pumped from Wells Bottomed Under the Land

The fee owner of the surface of a tract of land owns the entire bundle of sticks which constitutes groundwater rights in, on, and under the land. The landowner is also vested, pursuant to the rule of capture, with a personal property interest in all water produced from the same land. *Texas Company v. Burkett*, 117 Tex. 16, 296 S.W. 273 (1927); see also *Bartley v. Sone*, 527 S.W.2d 754 (Tex.Civ.App.—San Antonio 1975, writ ref'd n.r.e.). Moreover, the *Texas Company v. Burkett* case also stands for the proposition which has now become an economic reality for most Texas landowners: groundwater is the exclusive property of the surface owner and subject to sale and transfer, as is all property. In fact, the language of this 1927 Supreme Court case is dispositive in contrasting the private ownership of groundwater with the public ownership of surface water:

"The record shows that the clause placed in the contract giving the Texas Company authority to excavate on the banks of the river for the purpose of gaining access to underground waters was placed there after its agent had been informed as to the readily accessible water underground, and after he had in fact seen excavations previous made for such purpose. There is no evidence in the record that the waters to be thus obtained by excavation were underground streams with defined channels, and therefore, possibly within the rule invoked in some jurisdictions that the use thereof was a limited or correlative one. Long on Irrigation § 43. In the absence of such testimony, the presumption is that the sources of water supply obtained by such excavations are ordinarily 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."

Texas Company v. Burkett, 117 Tex. 16, 296 S.W. 273 (1927) (Emphasis added).

B. Fee Ownership of Land Equals Fee Ownership of Water

The simplest form of ownership of groundwater and oil, gas and other minerals is that held by the fee simple owner.

"This ownership of underground water comes with ownership of the surface; it is part of the soil."

Friendswood Development Co. v. Smith-Southwest Indus., 576 S.W.2d 21, 30 (Tex. 1978).

Groundwater reservations can be analogized to mineral reservations because both remove part of the fee estate and create a new corporeal property interest in the same tract of land. In Texas, absent any conveyances or reservations, the owner of the surface of the land owns all the rights underlying his property. *Texas Co. v. Daugherty*, 107 Tex. 226, 176 S.W. 717 (1915). Texas observes the theory of mineral ownership in place. *Id.* In other words, the landowner, or the mineral estate owner (if the minerals have been severed from the surface), owns all of the substances, including oil and gas, which underlie the bounds of his tract. When the mineral estate is severed from the surface estate by conveyance or reservation, the mineral estate retains all of the rights, powers and duties appurtenant to it. In *Humphreys-Mexia Co. v. Gammon*, the Texas Supreme Court stated that

"where the minerals in place were severed by the conveyance from the residue of the soil,... the original land [was] as effectively divided into two tracts as if the division had been made by superficial lines, or had been severed vertically by horizontal plain."

113 Tex. 247, 260, 254 S.W. 296, 302 (1923).

Like a conveyance affecting groundwater, a conveyance or a reservation of the minerals by a grantor creates a severance from the surface. This results in two separate fee simple estates - the surface estate and the reserved estate. The initial severance and later conveyance or reservation of the mineral estate is subject to the same formalities as required for the conveyance of any real property. See TEX. PROP. CODE.

ANN. § 5.021 (Vernon 1984). Likewise, the creation of a separate groundwater estate would also be subject to the same formalities of a conveyance of real property. *Id.* Deeds to real property are generally construed to convey the greatest estate possible, and instruments that do not expressly except or reserve an interest or part of the real property owned by the grantor convey the grantor's entire estate. Water rights in or appurtenant to a tract of land are always included in the grant/conveyance to the grantee in absence of an explicit reservation to the contrary. *Graham v. Kuzmich*, 876 S.W.2d 446, 449 (Tex.App.—Corpus Christi 1994, no writ) (holding that certificated surface water rights are conveyed with land unless explicitly reserved from grant). Attorneys and courts look to the written instrument of conveyance as the final recitation of intent and effect of the parties' transaction.

Land title abstracts include a significant number of deeds and leases which reserve or convey, in addition to oil and gas, the "other minerals" or "the mineral estate," or perhaps even "coal and other minerals." These instruments create two separate, dominant and distinct estates in land which cannot be fully delineated by a specific horizontal depth. Each estate - the mineral estate and the surface estate - comes with certain mineral substances including water, and each estate enjoys rights dominant to the other in the exploration of these retained substances. All of these issues result in title conflicts between the surface holder and the mineral holder over ownership and physical access. Particular to water is the possibility that water rights may have been included as part of the mineral estate.

The relatively few early Texas cases to discuss the ownership of minerals held that minerals meant "all substances legally cognizable as minerals." *Anderson & Kerr Drilling Co. v. Bruhlmeier*, 134 Tex. 574, 136 S.W.2d 800 (1940). The only exception to this straightforward definition had to do with substances that had traditionally been utilized by the surface owner and his tenants on the land items such as sand, gravel, building stone [cut stone, limestone, rock, stones, etc.], and fresh water. *Heinatz v. Allen*, 147 Tex. 512, 217 S.W.2d 994 (1949); *Psencik v. Wessels*, 205

S.W.2d 658 (Tex.Civ.App.—Austin 1947, writ ref'd).

A person intending to acquire groundwater rights in a particular tract of land must carefully examine the entire chain of title from Sovereignty of the Soil through a current date to identify if water rights have been separately conveyed, or if the water rights were specifically included as part of the reserved or conveyed mineral estate. The mineral estate, or a currently subsisting mineral leasehold estate, includes the exclusive right to groundwater if and only in the event that the creating instrument specifically devised groundwater.

C. Surface Owner and Not Mineral Owner Holds Title to Water Rights

The Texas Supreme Court has further refined ownership of groundwater as being vested in the owner of the surface estate as a matter of law, except in those cases where the rights have been specifically reserved or conveyed. In the case of *Fleming Foundation v. Texaco*, 337 S.W.2d 846 (Tex.Civ.App.—Amarillo 1960, writ ref'd n.r.e.), the Amarillo Court of Appeals resolved the question of whether the reservation of the entire mineral estate by language including "oil, gas and other minerals" and subsequent conveyance of the surface estate to a third party vested ownership of subsurface waters in the mineral owners or the surface owner. Explicitly finding that the right to such water was conveyed with the surface estate absent contrary language, the court held that "the reservation of oil, gas and other minerals does not include the sub-surface water." *Id.* at 852.

Groundwater rights remain appurtenant to the surface estate in that a reservation or conveyance of the surface estate only in a tract of land vests in the surface owner such rights to the use thereof as are usually exercised by owners in fee. The Texas Supreme Court in *Sun Oil Company v. Whitaker*, 483, S.W.2d 808 (Tex. 1972) held succinctly:

"Water, unsevered expressly by conveyance or reservation, has been held to be part of the surface estate."

D. Water is Part of the Surface Estate as a Matter of Law

Interestingly, the following ten (10) substances belong to the surface estate as a matter of law, and no inquiry into the construction of a prior reservation or grant of "other minerals" is necessary:

1. Building stone, *Heinatz v. Allen*, 147 Tex. 512, 217 S.W.2d 994 (1949);
2. Limestone, *Heinatz v. Allen*, 147 Tex. 512, 217 S.W.2d 994 (1949); *Atwood v. Rodman*, 355 S.W.2d 206 (Tex.Civ.App.—El Paso 1962, writ ref'd n.r.e.);
3. Caliche, *Atwood v. Rodman*, 355 S.W.2d 206 (Tex.Civ.App.—El Paso 1962, writ ref'd n.r.e.);
4. Surface shale, *Atwood v. Rodman*, 355 S.W.2d 206 (Tex.Civ.App.—El Paso 1962, writ ref'd n.r.e.);
5. Sand, *Psencik v. Wessels*, 205 S.W.2d 658 (Tex.Civ.App.—Austin 1947, writ ref'd.);
6. Gravel, *Psencik v. Wessels*, 205 S.W.2d 658 (Tex.Civ.App.—Austin 1947, writ ref'd.);
8. Near surface lignite and coal, *Reed v. Wylie*, 597 S.W.2d 743 (Tex. 1980);
9. Iron ore (probably only near surface iron ore), *Reed v. Wylie*, 597 S.W.2d 743 (Tex. 1980); and
10. Water, *Fleming Foundation v. Texaco*, 337 S.W.2d 846 (Tex.Civ.App.—Amarillo 1960, writ ref'd n.r.e.); *Sun Oil Co. v. Whitaker*, 483 S.W.2d 808 (both fresh water and salt water that is pumped from the ground).

See *Moser v. United States Steel Corp.*, 676 S.W.2d 99, 102 (Tex. 1984).

In summary, groundwater rights constitute part of the surface estate. These rights may be transferred as part of the mineral estate only if the conveyance instrument includes specific language to that effect. Language of conveyance such as "other minerals" does not include groundwater rights even when constructional rules are applied by a court when trying to interpret general severance language transferring valuable natural resources to a third party.

E. Non-Participating Interests in Water Production

Non-participating royalty owners may be entitled to a royalty on commercial water production from the tract of land in issue if the non-participating interest was carved from and burdens the surface estate. In 1995, the Texas Supreme Court finally reconciled several conflicting appellate court opinions and applied an "ordinary and natural meaning" analysis to non-participating royalty interests. *Plainsman Trading Co. v. Crews*, 898 S.W.2d 786 (Tex. 1995). Its decision found that, under a royalty reservation made in 1949, the owner of a 1/16 non-participating royalty on all oil, gas or other minerals was not due royalties on any strip-mined lignite or other substances that the surface owner may have owned, such as groundwater. The court held:

"A non-participating royalty is an interest in the mineral fee, however large or small that fee is and regardless of how its limits are determined." *Id.* at 790.

Simply stated, the non-participating royalty interest could not attach to a particular substance not part of the mineral fee estate (groundwater, mineral or other natural resource), because the non-participating royalty is carved from and burdens the mineral fee.

For non-participating interests, the analysis is straightforward. First, one must determine which estate owns a particular substance. For groundwater, the analysis will almost always yield the following: the water rights are an appurtenant part of the surface estate. If the substance is part of the surface estate, then the non-participating owner receives nothing, because the non-participating interest is carved from and burdens the mineral estate only. However, if the water rights have been transferred to and are thus now part of the mineral estate, then a non-participating royalty may be due on commercial water production ascribed to the tract. Conversely, non-participating royalties can and sometimes are carved from the surface estate, thereby authorizing the non-participating royalty owner to participate in the production of near surface

minerals, such as lignite, and, fortuitously, water.

F. Limitations on the Groundwater Estate

The cases above clearly establish that the surface estate owns all groundwater rights underneath the land, subject only to the following exceptions and limitations:

1. Potential limitations on pumping under rule of capture jurisprudence;
2. Reasonable regulation under specific statutory schemes or groundwater management districts;
3. Prior and specific severance of such groundwater rights as part of the oil, gas and mineral estate;
4. Non-participating royalties due on water production if such royalty is due on natural resources owned by the surface estate; and
5. Dominant, but reasonable use of water, by the oil, gas and mineral owner or his lessee in the exploration, development and production of oil and gas. This burden on the groundwater estate is discussed in more detail below.

V. CAN WE ACTUALLY SEVER THE GROUNDWATER ESTATE FROM THE SURFACE ESTATE?

Once a determination has been made on which owner, be it the surface or mineral owner, owns groundwater rights, the next question that may arise is whether those rights may be severed from the respective estate, thereby creating a groundwater estate in the same tract of land. Clearly, the actual water, once reduced to personal property possession on the surface of the earth, may be taken, severed, sold, transported off of the tract of land and used at other locations. But, can the groundwater estate, itself, be separately segregated from the surface estate, thereby depriving the surface owner from any use of groundwater from beneath his land and vesting such rights in a new, third party estate holder?

The answer is yes. *Pfluger v. Clack*, 897 S.W.2d 956 (Tex.App.—Eastland 1995, no writ) stands for the proposition that surface or subsurface water, unsevered expressly by

written instrument, is part of the general rights constituting the surface estate. In this case, the appeals court reviewed title to a tract of land in which water rights had been expressly reserved in a prior deed in the chain of title. The court held that such prior reservation validly encumbered the title of the then existing surface estate owner such that a buyer could justifiably object to title to the surface estate to be sold under an earnest money contract. In other words, the prior water severance was valid and the current owner/vendor breached the sales contract covering the property by not specifically excepting the prior water rights severance. However, there does not exist in Texas case law, an opinion directly reviewing, interpreting and giving effect to a reservation of water rights separate from the surface estate.

As discussed earlier, Chapter 36 of the Texas Water Code in Section 36.002 entitled *Ownership of Groundwater*, specifically validates the creation by a landowner of separate estates in land regarding groundwater:

"The ownership and rights of the owners of the land and their lessees and assigns in 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, subject to rules promulgated by a district."

TEX. WATER CODE ANN. § 36.002 (Vernon 2000).

Consequently, a leasehold estate in the groundwater may be granted by the landowner. In addition, the most comprehensive statutory scheme in Texas governing groundwater rights, the Edwards Aquifer Authority enabling statute also contains analogous language ratifying that the groundwater estate may be owned by the surface owner and thereafter vested in a lessee and assign, thus creating a separate groundwater estate holder. Act of May 30, 1993, 73d Leg., R.S., ch. 626, 1993 Tex. Gen. Laws 2350, amended by Act of May 29, 1995, 74th Leg., R.S., ch. 261, 1995 Tex. Gen. Laws 2505, and Act of May 16, 1995, 74th Leg., R.S., ch. 524, 1995 Tex. Gen. Laws 3280, and Act of May 6, 1999, 76th Leg., R.S., ch. 163, 1999 Tex. Gen.

Laws 634 [hereinafter Edwards Aquifer Act]. Article 1, Section 107, of the Edwards Aquifer Act entitled *Ownership of Underground Water*, reads:

"The ownership and rights of the owner of the land and the owners, lessees and assigns, including holders of recorded liens or other security interests in land, in underground water and the contract rights of any person who purchases water for the provision of potable water to the public or for the resale of potable water to the public for any use are recognized."

Id. at § 1.07.

It is worth noting, however, that the Edwards Aquifer Act, in Article 1, Section 134, entitled, *Transfer of Water Rights*, mandates the following:

"A permit holder may lease permitted water rights, but a holder of a permit for irrigation use may not lease more than fifty percent of the irrigation rights initially permitted. The users' remaining irrigation water rights must be used in accordance with the original permit and must pass with transfer of the irrigated land."

Id. at § 1.34.

Thus, it seems reasonably certain that groundwater rights may be separately conveyed or reserved in a tract of land, subject only to any specific prohibitions created by a groundwater management district or other regulatory agency, such as the Edwards Aquifer Authority, under a direct legislation mandate. Indeed, as evidenced by a 1999 proposed bill, the Texas Legislature believes that separate groundwater estates in land can be created either by lease or deed. This proposed bill related to prohibiting the severing of surface rights from groundwater rights when conveying real property. The proposed act would have amended Subchapter A, Chapter 5 of the Texas Property Code by adding a new Section 5.012 entitled, *Severance of Surface Water Rights from Groundwater Rights Prohibited*. The proposed addition to the Texas Property Code was to read as follows:

"In conveying real property, the owner of the property may not sever surface rights from groundwater rights. The owner may not:

1. Retain surface rights and convey groundwater rights to the real property; or
2. Retain groundwater rights and convey surface rights to the real property."

Tex. H.B. 109, 76th Leg., R.S. (1999).

The proposed law, introduced by Representative Alvarado, died in the House Business and Industry Committee.

VI. CREATING THE GROUNDWATER ESTATE

Traditionally, the sale and transfer of groundwater was of limited importance because every landowner could exercise the right to sink a well on his property, regardless of its size or production capability. The increasing urbanization of Texas, droughts, the specific regulations of the Edwards Aquifer Authority, and the proliferation of groundwater management districts with minimum acreage requirements for commercial pumping have forever changed the dynamics of the groundwater market. Certain water purveyors and other investors are now seeking to acquire groundwater rights in rural areas, to place such rights under lease, to drill and equip wells and to construct pipelines to transport the water to urban areas. Consequently, a person wishing to sever groundwater rights either by reservation in himself, or by conveyance or lease to a third party must:

1. Establish the surface owner of record - the person having the right to extract groundwater;
2. Confirm that no separate groundwater severance has been made by a predecessor in title;
3. Identify the existence of any groundwater conservation district and its particular field rules and permit provisions;

4. Conduct negotiations for the acquisition of the water rights;
5. Draft, review and negotiate the groundwater conveyance instrument; and
6. Place the water deed or instrument of record in the county where the land is located and file the deed as a transfer instrument with any water regulatory agencies having jurisdiction.

A. Written Instrument of Conveyance is Dispositive

Ultimately, the acquisition of water rights will require documentation by an instrument filed of record in the office of the county clerk where the tract of land is located. This instrument, either a deed reserving the groundwater estate in the original surface owner or conveying the groundwater estate to a third party, cannot rely on normal rules of construction and court-imposed implied duties in determining the rights and obligations of each party. Stated simply, the conveyance instrument must fully set out all rights, obligations and duties between the surface owner and the groundwater rights owner.

B. Granting Language

Groundwater is statutorily defined in the Texas Water Code as "water percolating below the surface of the earth." TEX. WATER CODE ANN. §§ 35.002(5) and 36.001(5) (Vernon 2000).

This language is far too vague when segregating all groundwater rights from a tract of land. Because of the many legal cases interpreting potential sources of underground water, such as aquifers, sands, traps, and artesian wells, a more inclusive description of the groundwater estate is required in a water deed. The following language for description of the estate granted is suggested:

"all groundwater, being all underground water, percolating water, artesian water and other waters from any and all reservoirs, formations, depths and horizons beneath the surface of the earth in, under, or that may be produced from the said land."

C. Surface Use by Groundwater Estate Owners or Their Lessees

1. Bad Example: The Dominant Mineral Estate

Under Texas law, when a mineral severance has occurred, the right to minerals carries with it "the right to enter upon and extract them and all such incidents thereto as are necessary to be used for getting and enjoying them." *Cowan v. Hardeman*, 26 Tex. 217, 222 (1862). The rationale for the doctrine may be stated thus:

"a grant or reservation of minerals would be wholly worthless if the grantee or reserver could not enter upon the land in order to explore for and extract the minerals granted and reserved."

Harris v. Currie, 142 Tex. 93, 176 S.W.2d 302, 305 (1944).

Hence, the mineral estate, together with the right to use the surface for developing the minerals, is the "dominant estate" (meaning that the mineral owner's common law right to use the surface generally has superiority and priority over any purposes for which the surface owner desires to use the surface) even when the surface owner is a public entity needing the property for public use. See *Chambers Liberty County Navigation Dist. v. Banta*, 453 S.W.2d 134 (Tex. 1970). As the dominant estate, the mineral owner may make as much use of the surface as is reasonably necessary in enjoying the minerals or in effectuating the goals of the oil, gas and mineral lease. However, even under the established common law rule, use of the mineral rights must be reasonably exercised with due regard to the rights of the surface interest owners. The mineral owner should use no more land than is reasonably necessary for development of the minerals and should exercise, at the least, ordinary care. *General Crude Oil Co. v. Aiken*, 344 S.W.2d 668 (Tex. 1961); see also, *Brown v. Lundell*, 344 S.W.2d 863, 866 (Tex. 1961) (mineral owner owes duty not to negligently injure surface). This doctrine, the "due regard" doctrine, has generally been applied from the perspective of the mineral owner and not from that of the burdened surface owner. If the lessee's activities are objectively reasonable within the industry, they will not

expose the lessee to liability to the surface owner irrespective of their impact to the surface estate. See generally Burney, *Accommodating and Condemning Surface and Mineral Estates — The Implications of Tarrant County Water Control and Imp. Dist. No. 1 v. Haupt, Inc.*, in 1994 ADV. OIL, GAS & MIN. LAW INST. (1994). The due regard doctrine does recognize the concurrent rights of the two estates — the surface owner's right to use and enjoy those parts of the surface not required for mineral activities and the mineral owner's right to use so much of the surface as is reasonably necessary for purposes of exploration and development of minerals.

2. The Groundwater Estate is Not Dominant

A severed groundwater estate may not have the benefit of the dominant estate theory, nor an implied right to reasonably use the surface. See e.g. *Pfluger v. Clack*, 897 S.W.2d 956 (Tex.App.—Eastland 1995, no writ). It is obvious, however, that a grant or reservation of water rights or the groundwater estate is rendered wholly worthless if the owner cannot actually enter upon the land in order to explore for and produce the water in commercial quantities. Significantly, there is no existing case law in Texas addressing whether or not a separately owned groundwater estate would be of greater, equal, or lesser dignity than the retained surface estate. However, in *Pfluger v. Clack*, the Eastland Court of Appeals held that the right to use of water by fee owner is greater than the right to use of water granted the dominant mineral estate, under a theory of implied easement. See *Id.* at 960. It seems quite likely that Texas courts, in interpreting groundwater severances, would treat the groundwater estate more in the form of an easement or profit à prendre (in real property law, the right to take soil, gravel, minerals and the like from another's land). Consequently, the specific rights of surface use, wellsite location, access easements and production, treatment, storage and transportation facilities must all be addressed in the specific written agreement.

3. Access and Facility Easements

The first goal of any water rights holder is to enter onto the land and commence exploring the

depths below. Absent express language in the water lease or deed providing for easements, there exists no statutory or common law remedies in order for the operator to use existing access easements, and erect pipeline rights-of-way and facility sites on the acreage in question. Necessarily, the creating instrument should include language specially granting a non-exclusive blanket easement, much like the following:

"together with the right of access for ingress and egress reasonably necessary to conduct the foregoing activities from and over said land, including all necessary and convenient uses of the surface and subsurface estate covered hereby."

In addition, the water deed should create an express easement for extracting water, for authorizing reasonable use of the surface for exploring, drilling, producing, transporting and marketing the water from the lands, and for selecting wellsites. In *Pfluger v. Clack*, the following surface use language was included in the water rights reservation:

"[water rights holder] shall have the right to use and enjoy all subsurface water in and under said land necessary and proper for the aforesaid purposes..."

Id. at 959.

a. Surface Use Must Benefit the Aquifer Underneath

First, a clear limitation on any contractual right of the water grantee to use the surface of the land lies in the fact that one must be involved exclusively in exploring for or producing water located under the specific tract of land described in the water deed. This merely constitutes an application of the general principle of property law, which is that an easement may not be used for the benefit of any property other than the dominant estate, that being the estate which the easement benefits. Use of the surface for the benefit of an adjoining estate generally constitutes an abuse and overuse of the scope of the easement. The exclusivity is further limited in that the authorized surface use cannot involve operations that benefit both on-site and off-site water. For example, a road,

pipeline or storage facility constructed in connection with a well drilled on one tract may not also be used in conjunction with operations on an adjoining tract. Courts take a strict view of the scope of the easement, and the rights holder has no right to conjunctive uses. The only exception to this rule is in the case where the two tracts of land are pooled or unitized under an explicit contractual agreement placed of record in the county clerk's office, such that the owner of the utilized tract shares in both the benefits and obligations of the surface use. This paper does not address surface use in connection with a pooled unit other than to note that any part of the surface of the pooled unit might be used to benefit the underlying unitized water rights.

b. Surface Use Must be in Accord With the Water Deed or Lease Terms

Second, the surface use must be in accordance with the dispositive agreement creating the two estates in land. A typical groundwater lease contains specific provisions limiting the general blanket easement for surface use but also includes a general listing of the activities that are itinerant with water production. In the same fashion, a water deed should grant a surface use easement,

"...onto grantee for the purpose of investigating, exploring, prospecting, drilling and operating for and producing water, injecting waters, other fluids, and air into subsurface strata, laying pipe lines, storing water, building tanks, roadways, telephone lines, and other structures and things thereon to produce, save, take care of, possess, store and transport said water, in the following separately described tracts of land in Bexar County, Texas, to wit:"

or

"...unto grantee the lands hereinafter described, including all necessary and convenient uses of the surface and subsurface estate covered hereby, for the purposes and with the exclusive right of exploring, investigating, conducting geologic, hydrogeologic and geophysical surveys and tests, drilling, operating for,

producing and owning groundwater, constructing waterworks, storing water, transporting water, laying water gathering and transportation pipelines and electric lines, installing metering devices, building storage tanks, establishing power and pumping stations, telephone lines, roads, and all other structures thereon, therein or thereunder that are necessary and useful in Grantee's operations to find, produce, sever, save, care for, measure, store, treat and transport the groundwater from and over said lands, including the right to install and emplace interconnection facilities, transportation, distribution or utility systems."

The water deed, then, specifies which surface uses are authorized. The stipulated activities are often fashioned as an agreement between the grantor and grantee. Any surface protections found in a deed, such as burying pipelines and requiring that drilling be kept a specified distance from houses, are covenants running with the surface estate. *See e.g. Thomas v. Thomas*, 767 S.W.2d 507 (Tex. App.—Amarillo 1989, writ denied).

Recitation of the purpose of the blanket surface easement included with the water rights can also aid in later determining the scope of the easement. A water deed should include language granting:

"all rights, titles, and interests appurtenant thereto [the Groundwater Estate] and that are necessary and useful in Grantee's operations to find, protect, produce, sever, save, care for, measure, store, treat and transport the groundwater from and over said land."

It may also be helpful to recite the purpose of the surface use and the ways in which such use actually benefits the groundwater estate holder. The purpose of the deed is to exclusively vest in the groundwater estate all rights of:

"exploring, investigating, conducting geologic, hydrogeologic and geophysical surveys and tests, drilling, operating for, producing and owning groundwater."

D. Drilling a Water Well - Wellsite Ownership

The number and location of well sites that will be constructed on the surface of a tract of land is usually not known at the time of a groundwater severance or lease. If pumping stations or planned wellsites exist, then rights to possess, use and occupy the sites may be addressed in the conveying document. If, on the other hand, groundwater rights are severed for speculation or investment, the water rights owner must rely on a written mechanism to gain use and possession in the future if and when exploration, drilling and production activities are commenced. Certainly groundwater rights in the acreage may be dedicated to an offsite well located on adjoining land for use in complying with a groundwater management district's well spacing or acreage allocation formula rules. However, the conveyance instrument must address siting issues, by language such as:

"Surface owner and water owner agree to jointly select well sites, but neither party will unreasonably withhold consent as to well site locations. Surface owner agrees that water owner is entitled to drill, develop and maximize, to the extent permitted by law, or regulation, the maximum quantity of well sites, and the maximum allowable production from each well. The historical production and historical use of each producing well shall attach to and be exclusively associated with the point of withdrawal for each well site owned by water owner."

E. Production, Treatment, Storage and Transportation Facilities

In the process of buying and selling water, water companies will eventually need to lay and operate both gathering and transportation pipelines in order to accumulate and remove the severed water offsite. Additionally, the operator will require storage tanks and necessary treatment equipment on the surface of the land so long as such structures and machinery facilitate the operator's fundamental production operations "to produce, save, care for and dispose" of the severed extractive substance. If the water produced from a well is to be delivered to a public drinking water supply system, then,

in all events, a sanitary control easement will be required. See 30 TEX. ADMIN. CODE § 290.47 (2001). The surface owner should contractually agree, as a covenant running with the land, to execute a sanitary control easement upon request by water owner, with content substantially similar to that set forth in Title 30 Texas Administrative Code Section 290.47, as periodically amended, to provide sanitation easements around each completed and producing well site. It is advised that a drafter of water deeds review the Texas Administrative Code provisions regarding water wells to stay apprised of such requirements.

F. Permit and Other Personal Property Rights

Existing permits and other personal property rights that concern water wells and water production should also pass to the groundwater estate holder under the water deed. Such transfer may occur by assignment and bill of sale language imbedded in the deed. The important items to address are as follows:

1. wells, pumps and equipment;
2. licenses, allotments, and permits;
3. rights associated with the ownership of wells drilled for the production of groundwater;
4. any past historical production or use, and projected future historical production or use;
5. declarations of historical use now or hereafter existing; and
6. all claims and permits, easements, and all rights and obligations of applicable federal, state, local or conservation agency programs and cooperative or association memberships.

The deed should also instruct government regulators to change ownership records pursuant to the deed and by issuance of a new certificate of title or authority.

VII. CO-TENANTS IN THE GROUNDWATER ESTATE

Existing permits and other personal property rights that concern water wells and water production should also pass to the groundwater

estate holder under the water deed. Such transfer may occur by assignment and bill of sale language imbedded in the deed. The important items to address are as follows:

Groundwater, royalties and other interests in the groundwater estate may, like all real property, be subject to a diversity of ownership. It is the tenancy in common, or undivided fractional interest of water rights, that may ultimately be of greatest concern to a surface owner or owners. For example, Texas law relative to development and leasing rights between co-owners of oil and gas, no matter the number, generally facilitates the speedy exploration, development and ultimate production of the mineral resource. In short, any co-tenant of the minerals can drill for oil without the consent of the remaining mineral owners. *Burnham v. Hardy Oil Co.*, 147 S.W.2d 330 (Tex.Civ.App.—San Antonio 1912), *aff'd* 108 Tex. 555, 195 S.W. 1139 (1917).

Necessarily, each separate participating oil and gas developer is authorized to make use of the surface overlying the mineral property. See generally 1 E. SMITH AND J. WEAVER, TEXAS LAW OF OIL AND GAS § 2.3(A)(1) (1998). Simply put, any co-tenant owning an interest in a portion of the mineral estate that is possessory in nature may explore, drill and produce oil, gas or other minerals from locations on, and may make full use of, the surface, even if such activities duplicate other mineral owners' surface activities. *TDC Engineering, Inc. v. Dunlap*, 686 S.W.2d 346 (Tex.Civ.App.—Eastland 1985, writ ref'd n.r.e.). Texas law has developed these rules to encourage the rapid and successful development of natural resources and to prohibit the owner of a minority interest from blocking mining or drilling or use the surface. Each co-tenant may exercise the rights of a dominant estate owner to utilize the surface, the titles and other incidents that are a necessary part of his undivided share in the minerals.

Likewise, as with all other incidents of surface ownership, any tenant in common (or the co-tenant's lessee) has the absolute right to explore and produce his property without the permission of the other undivided owners. The co-owner or his lessee must account to the non-producing co-tenants for the value of the

produced substance, less the reasonable costs of production.

The severed mineral estate is analogous enough to the severed groundwater estate to posit that groundwater rights may also be owned in individual undivided fractions. Each co-owner should have an absolute right to develop and produce groundwater subject only to the obligation to account for net proceeds to the other owners of the groundwater estate. Net proceeds are those proceeds attributable to production of water after deducting lifting costs and recovering the reasonable expenses of drilling and equipping the wellsite.

VIII. WATER USE BY MINERAL OWNERS

A. Groundwater

As discussed above, water, both saltwater and fresh water, is owned by the surface owner. However, such ownership rights are subordinate to the mineral estate's reasonable need and use. Most oil and gas activities require a large quantity of water in drilling operations. The mineral lessee's need for water is heightened by the fact that most oil and gas activities are not conducted close to domestic supplies. Therefore, the mineral lessee will desire to either dig a water well or utilize existing landowner water wells for drilling or waterflood operations.

The mineral estate has been held to have an implied right to take and use as much of the water as is reasonably necessary for the production of the underlying minerals. *Guffey v. Stroud*, 16 S.W.2d 527 (Tex. Comm'n. App. 1929). This right to industrial use of water by the mineral owner was made clear by Texas courts even in absence of a definitive statutory or court pronouncement regarding fresh water being part of the surface estate as a matter of law. *Stradley v. Magnolia Petroleum Co.*, 155 S.W.2d 649 (Tex.Civ.App.—Amarillo 1941, writ ref'd.). In fact, until curbed by various provisions of the Texas Water Code, a mineral lessee was entitled to use the surface owner's waters not only for relatively short term drilling purposes, but for extended period secondary recovery operations by which water was continuously flooded into the oil-bearing formations. TEX. WATER CODE ANN. § 27.0511(c) (Vernon's 1999); *Sun Oil v.*

Whitaker, 483 S.W.2d 808 (Tex. 1972). Consumption of water by the mineral owner, even when it causes substantial damage to the surface owner by diminishing the remaining available supply, constitutes reasonable use. *Id.* The existence of other alternate means of off-premises supplies does not temper the mineral lessee's right of dominant use. *Id.* A mineral owner's use of water is, however, generally limited to groundwater. Of course, only groundwater can be unilaterally utilized by the mineral lessees, because it is only that type of water which is owned by the surface owner. Surface water, as opposed to groundwater, is owned by the State of Texas.

B. Saltwater

1. Use

Saltwater existing beneath the surface of the earth, even if it exists in the mineral stratum or is co-mingled with oil, gas or "other minerals," has been expressly held by the Texas Supreme Court to be owned by and be part of the surface estate. *Robinson v. Robbins Petroleum Corp., Inc.*, 501 S.W.2d 865 (Tex. 1973). Nevertheless, in *Robinson*, the Supreme Court, based on prior case law allowing reasonable use of the surface and the rights therein for the benefit of the mineral estate, granted the oil and gas operator a right to use saltwater in secondary recovery operations. *Id.*

2. Disposal

As recently publicized in a series of exposés in the San Antonio Express-News, the production of saltwater is a necessary but environmentally hazardous by-product of oil pumpage. In the early days of the industry, saltwater was spilled upon the surface of the earth or was contained in evaporation ponds as a method of disposal. This highly destructive method of dealing with saltwater has more or less been regulated into nonexistence, although, in common law, the practice has been considered a reasonable use of the surface. *Brown v. Lundell*, 162 Tex. 84, 344 S.W.2d 863 (1961). Today, the disposal of saltwater is conducted via reinjection wells into depleted formations beneath known fresh water tables. Reinjection of saltwater generated by oil and gas production activities into the same tract of land

from which it was produced is authorized as a reasonable use of the surface of the tract of land. *TDC Engineering, Inc. v. Dunlap*, 686 S.W.2d 346 (Tex.Civ.App.—Eastland 1985, writ ref'd n.r.e.). In sum, a mineral owner may produce saltwater and may reinject saltwater, regardless of the surface ownership of the tract from which it was produced or to which it was disposed. This is true even if there are different tracts and surface owners, so long as the saltwater production and saltwater disposal benefits the same underlying mineral estate. In the same manner, a mineral owner may produce and then reinject saltwater into the ground, regardless of whether a severed estate in groundwater exists.