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## **Texas Water Marketing in Perspective**

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In many western states, including Texas, voluntary transfers of existing surface water rights between willing sellers and buyers will likely play an important role in meeting changing demand patterns over the next decades.<sup>1</sup> This is particularly true in areas where most of the available surface water has already been allocated to permitted uses, at least on paper. Such voluntary transfers are already taking place across the West and in some parts of Texas.<sup>2</sup>

This paper examines briefly some major issues associated with surface water transfers as they play out in California and Texas. Both of these large states have an extensive system of existing surface water permits, growing populations and shifting water demand patterns. The literature on water marketing, even in just these two states, is vast and complex and it is not possible to thoroughly cover all the issues in this paper. Thus, we have included a few key references for each state for those interested in a deeper dive.

## Overview

The western U.S., including Texas, has entered a new era in water allocation and use. The combined forces of population growth, industrial and agricultural development and drought (intensified in some areas by a changing climate), along with requirements to protect fish and wildlife that depend on freshwater flows, are forcing important changes in the nature of surface water rights. From the early prevalence of absolute “first in time, first in right” water use tied to a particular tract of land, western water law is evolving rapidly to meet changing demand patterns and other challenges, and the pressure for such changes is only going to increase over the next few decades.

While there are many aspects of the changing nature of water rights, one of the most important is how existing surface water rights might be transferred—temporarily or permanently—between those who hold the rights now and those who would like to lease or buy them and put them to a different use. Transfers are taking on increasing importance because: (1) the surface water in some river basins is already allocated to existing paper permits and there is no water available for “new” appropriations; (2) urban areas are in search of new supplies and are often turning first to nearby agricultural areas that hold permits for vast amounts of water because they see that as a potentially economically efficient approach to meeting new demand or firming up water supplies in dry years; (3) some agricultural interests, particularly efficient growers with high value crops, are actually in the market for more water than they currently have available to them; and (4) there is increasing interest from both governmental and non-governmental

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<sup>1</sup> See, generally, Craig Bell and Jeff Taylor, Water Laws and Policies for a Sustainable Future: A Western States’ Perspective, Western States Water Council, June 2008, particularly Chapter 2, Sections 6 and 7, available at [www.westgov.org/wswc](http://www.westgov.org/wswc). The present paper is confined to surface water rights marketing issues. It does not cover groundwater marketing, nor wholesale transfers of water without the underlying rights.

<sup>2</sup> See, generally, Brewer, Jedidiah, et al, “Water Markets: Western Transfers from Agriculture to Urban Uses, 1987-2005”, September 2006, research sponsored by the National Science Foundation and Brewer, Jedidiah et al, “Water Markets in the West: Prices, Trading and Contractual Forms”, National Bureau of Economic Research, Working Paper No. 13002, March 2007.

organizations in leasing or buying water to meet instream flow requirements in fully appropriated basins, particularly during dry or drought periods.

Most western states, including the two surveyed here, have statutory and regulatory provisions governing voluntary water transfers. As noted below, these provisions vary significantly among the states and there are many uncertainties and gaps in current law. Nevertheless, as legal scholar and market proponent Robert Glennon points out in *Unquenchable: America's Water Crisis and What to Do About It*<sup>3</sup>:

For any market to operate, the state must establish and protect property rights and enforce contracts. The choices made by the state about when and how to enforce contractual arrangements involve resource allocation decisions. In other words, there is no such thing as a “free market.” Markets involve political decisions made by the state that define property rights and influence the division of labor. The state is responsible for the consequences of these choices. That’s why we should insist on state oversight of the process and the outcomes for markets in water rights....A regulated market makes eminent sense in the case of water, a resource with cultural, spiritual, religious, environmental, and economic value. Water is a shared resource, widely but unevenly distributed, used and reused, in constant movement through the hydrologic cycle. As a shared resource owned by the state and used by its citizens, water requires stewardship by the state.

For water rights transfers to play their envisioned role in helping to meet changing demand patterns and shoring up reliability for critical needs, a clear and fair oversight system is absolutely essential. Water markets are not universally revered and in fact there is much resistance to them from many quarters. Rural areas are often concerned that their water supply and economic base will “dry” up with large “out-of-area” transfers. There are those that see the ability of an existing water right holder to profit from sale or lease of a public trust resource as providing an undue financial windfall. Some irrigation district boards oppose attempts by individual farmers or groups of farmers to lease or sell water because they see it undermining the district’s operations and/or financial base.

Water right transactions have other unusual complicating characteristics that can affect how they are perceived. In an analysis of the notorious Owens Valley to Los Angeles transfer of the early 20<sup>th</sup> century for the Property and Environment Research Center (PERC)<sup>4</sup>, an organization that promotes the use of markets to solve environmental problems, Professor Gary Libecap points out that there are at least three issues that can impede the development of fully functioning water markets:

- **Valuation:** getting the “right” price for water right transactions is often difficult because there are few parties involved, the seller often has sole

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<sup>3</sup> Robert Glennon, *Unquenchable: America's Water Crisis and What to Do About It*, Island Press (2009), at 310.

<sup>4</sup> Gary D. Libecap, *Rescuing Water Markets: Lessons from Owens Valley*, PERC Policy Series, Issue No. PS-33 (January 2005), available at [www.perc.org](http://www.perc.org).

possession of data that affects valuation, and there is a dearth of easily comparable transactions by which to set prices;

- **Bilateral monopoly:** water right transactions often occur between a single seller or pool of sellers and a single buyer, versus in an open, competitive market place; and
- **Third party effects:** negotiating agreements to compensate “third parties” (e.g. local governments that might lose tax revenue from farms, farm employees and farming related business that cease to exist if the water is transferred) is extremely complex and the effects of the transfer are often hard to separate from underlying farm economics.

In addition, there are several more direct issues that arise in water transfers, issues that are likely best addressed through a sound statutory and regulatory framework instead of case-by-case litigation.<sup>5</sup>

First, what portion of a right should be transferrable? For example, should a water right holder be able to transfer an entire paper water right to a different use in a different place, even if not all the water right has been put to consumptive use? The reason this is important is that downstream water right holders may have become dependent on either return flows or the unused portion of the upstream right in order to fully exercise their own right. Should a water right holder be able to transfer an amount of water that is “conserved” from a previous use pattern under the water right? Should a water right holder be able to transfer all or a portion of permitted surface water, while replacing that use with groundwater?

Second, how should potential adverse effects of a proposed transfer on instream flows and fish and wildlife habitat be addressed?

Third, should temporary transfers, such as short-term leases or dry-year option contracts be treated differently from permanent sales and transfers in terms of conditions imposed on the transfer and/or the review process?

Fourth, from a public interest or public trust perspective, should there be conditions “precedent” to major water transfers, particularly inter-basin transfers, requiring the buyer to have strong efficiency measures in place before a transfer of that type can be authorized?

The sections that follow look at water transfers in California and Texas, considering a number of the issues discussed above. Each section begins with a brief analysis of relevant statutory and regulatory provisions, followed by a qualitative discussion of the types of transactions that are happening now and a look at issues on the horizon.

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<sup>5</sup> Bell and Taylor, *supra*.

## CALIFORNIA

### *Brief Overview*

The water transfer market in California, as a whole, is active and growing. The state has a comprehensive statutory scheme for temporary, long-term and permanent transfers.<sup>6</sup> In general, these statutory provisions are consistent with general western water law principles applied to transfers in other states. Proposed transfers generally are limited to historical consumptive use (water which is made available via temporary fallowing or permanent cessation of use, or as it is often called in California, “crop idling”) or “conserved water” made available through efficiency improvements.<sup>7</sup>

Determining the amount of transferrable water can be complex. As noted in the 2005 California Water Plan Update:<sup>8</sup>

Quantifying the actual water savings from crop shifting and crop idling is particularly difficult because only the consumptive use by the crop is transferable in most cases. There is a risk that estimates of the water supply benefits from the transfer to the water system (estimates of “real water”) will be inaccurate and that the transfers have unintended consequences to other water users, local economies or the environment. A key challenge is to improve methods for quantifying these uncertainties and to include adequate monitoring and assurances when implementing water transfers. Monitoring is particularly critical for transfers that obtain water from crop idling, crop shifting, water use efficiency measures, or by increasing groundwater use.

With some very important exceptions, transfers must be reviewed by the California State Water Resources Control Board (SWRCB) to ensure that changes in place and purpose of use do not cause “injury” to other water rights or fish and wildlife.<sup>9</sup> Importantly, if there is effectively no change in place or purpose of use under the water rights permit, such as among State Water Project (SWP) contractors or among Central Valley Project (CVP) contractors, there is no requirement for SWRCB review. Because so much water use in

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<sup>6</sup> See, *inter alia*, CA Water Code, Secs. 380-387; 1020-30; 1700-1705.5; 1725-1732; 1735-1737; 1745-1745.11.

<sup>7</sup> Limiting transfers to historical consumptive use is typical of many western states and is essentially a streamlined approach to implementing the “no injury” rule. The “no injury” rule arises because “appropriators have a vested right to have stream conditions maintained substantially as they existed at the time of their appropriations.” Bell and Taylor, at 118 (citing 2 WATERS AND WATER RIGHTS (Robert E. Beck ed., 1991, ed. 2001), Sec. 14.04.

<sup>8</sup> California Department of Water Resources, California Water Plan Update 2005, Chapter 23.

<sup>9</sup> CA Water Code Sec. 1701.2. California water transfer statutes provide for notice of proposed transfers subject to SWRCB review, as well as opportunity for a contested hearing on issues of possible injury to other water right holders or fish and wildlife. CA Water Code Secs. 1703-1705. The SWRCB is part of the California Environmental Protection Agency and is the state’s primary water rights administration and water quality protection agency. For more information on SWRCB, see [www.swrcb.ca.gov](http://www.swrcb.ca.gov).

California occurs within these two massive projects, the SWRCB has a more limited role than might otherwise be contemplated.<sup>10</sup>

However, rules for these intra-project transfers also require that transfers not harm other existing water users, fish and wildlife or the environment. State water project transfers are reviewed by the California Department of Water Resources (DWR)<sup>11</sup> according to various agency guidelines and statutory requirements, particularly those associated with the California Environmental Quality Act (CEQA).<sup>12</sup> Permanent transfers (i.e. transfers for a term greater than one year) are reviewed under July 2003 guidance.<sup>13</sup>

Transfers among CVP contractors are governed by Sec. 3405 of the Central Valley Project Improvement Act of 1992 (CVPIA)<sup>14</sup> and the Bureau of Reclamation's Interim Guidelines for the Implementation of Water Transfers under CVPIA. The National Environmental Policy Act (NEPA) also applies to BOR transfer approvals.<sup>15</sup>

Transfers of rights from a CVP contractor to an SWP contractor outside the CVP service area require the U.S. Bureau of Reclamation to petition the SWRCB for approval pursuant to the statutory provisions applicable to short or long term transfers.<sup>16</sup> The same is true for transfers from SWP contractors to CVP contractors.

Holders of pre-1914 state water rights can change the purpose of place of use of their right if other water right holders are not injured by the change. The SWRCB does not have authority to review such transfers, except if they are for instream flows purposes, but a water right holder that claimed injury could bring a court action to challenge the transfer. California law contains specific provisions for changing the purpose of a pre-1914 water right and other water rights to instream use.<sup>17</sup>

“Long term” transfers (defined as transfers for more than one year or permanent) subject to SWRCB review are also subject to review under the state environmental quality act

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<sup>10</sup> Gray, Brian E., “The Shape of Things to Come: A Model Water Transfer Act for California”, 14 Hastings W-N.W. J. Env. L. & Pol’y 623, 636 (Winter 2008).

<sup>11</sup> The DWR is part of the California Natural Resources Agency and is responsible for statewide water planning, financing and operation of the State Water Project. For more information, see [www.water.ca.gov](http://www.water.ca.gov).

<sup>12</sup> CA Pub. Res. Code Sec. 21080. CEQA is essentially the state equivalent of the National Environmental Policy Act (NEPA) and applies to actions of state or local government. It requires review of environmental impacts of state and local actions and avoidance or mitigation of negative impacts. See <http://ceres.ca.gov/ceqa>.

<sup>13</sup> California Department of Water Resources, Notice to State Water Project Contractors No 03-09, Guidelines for Review of Proposed Permanent Transfers of State Water Project Annual Table A Amounts, July 3, 2003. The guidelines were adopted pursuant to a settlement agreement in *Planning and Conservation League et al v. DWR*, 83 Cal App. 4<sup>th</sup> 892 (2000).

<sup>14</sup> Pub. L. No. 102-575.

<sup>15</sup> See, for example, the April 2009 FONSI/EA on the 2009 Drought Water Bank, which includes analysis of various environmental, endangered species and socio-economic effects of proposed CVP-related transfers.

<sup>16</sup> For the proposed 2009 Drought Water Bank, DWR petitioned the SWRCB for a temporary (2009-2010) “consolidated place of use” for SWP and CVP service areas. SWRCB approved this petition, with conditions, in May 2009.

<sup>17</sup> CA Water Code Sec. 1707.

(CEQA) review. Temporary transfers (less than one year) are exempt from CEQA review.<sup>18</sup> Transfers that use the SWP or other state, regional or local public agency facilities must also be reviewed to ensure that they do not result in “unreasonable effects on the overall economy in the country from which the water is transferred.”<sup>19</sup>

Some surface water transfers are made on the premise that groundwater will be substituted for the transferred surface water. This kind of transfer has generated significant controversy and specific legislative responses at both the state and county/local levels.<sup>20</sup>

### *Types of transactions*

The majority of California water right transfers, by volume and by number, are temporary agriculture to agriculture transfers occurring among SWP and CVP contractors, respectively.<sup>21</sup> The CVP transfers are largely composed of purchases by farmers in the San Joaquin Valley and Tulare Lake Basins, who are using transfers to replace water cutbacks resulting from the implementation of the Central Valley Improvement Act (CVPIA). CVPIA also contains provisions that allow CVP water to be marketed, under certain conditions, to any non-CVP California water user or agency for beneficial use.

The second biggest category of transfers is purchases for the Environmental Water Account established under the CAL Fed restoration program for the Sacramento-San Joaquin Bay-Delta. Despite the activity in this area, the EWA has still fallen far short of its goals, due in part to funding shortfalls.<sup>22</sup>

Most permanent and long term transfers are from agriculture to municipal use, including the large Imperial Irrigation District and Palo Verde Irrigation District transfers to southern California urban use. Most permanent and long term transfers are from agriculture to municipal use, including the large Imperial Irrigation District Water Conservation and Transfer Project (IID) and the Palo Verde Irrigation District (PVID) transfer to southern California urban use. The historic IID transfer which began in 2003, is a key component of the Quantification Settlement Agreement (QSA) resolving long-standing disputes amongst the Colorado River users by reducing California’s use of Colorado River water to its allocation of 4.4 million acre-feet. This project will ultimately result in the conservation and transfer of up to 300,000 acre-feet from the IID

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<sup>18</sup> CA Water Code Sec. 1729.

<sup>19</sup> CA Water Code Sec. 1810 et seq. The CA DWR notes that “Strictly speaking, [third party] economic issues are typically only required to be evaluated in water transfers that seek to utilize DWR’s water conveyance facilities or those of other State or local agencies. However, economic impacts that are associated with physical changes to the environment may require analysis under the California Environmental Quality Act.” California Water Plan Update, *supra*, at fn 4.

<sup>20</sup> Ellen Hanak, *Who Should be Allowed to Sell Water in California? Third Party Issues and the Water Market*, Public Policy Institute of California, 2003. Available at [www.ppic.org](http://www.ppic.org).

<sup>21</sup> California Water Plan Update, *supra*; Hanak, *supra*.

<sup>22</sup> Environmental Defense, *Finding the Water: New Water Supply Opportunities to Revive the San Francisco Bay-Delta Ecosystem* (2005). Available at [http://www.edf.org/documents/4853\\_FindingtheWater.pdf](http://www.edf.org/documents/4853_FindingtheWater.pdf).

(senior water rights holder) to San Diego County Water Authority helping California adjust to living within its Colorado River allotment. The IID board and the Imperial County community were substantially opposed to the transfer for a number of years until a combination of significant pressure from the federal government, in the form of beneficial use proceedings, and the provision of economic mitigation dollars resulted in sufficient support for the deal to be approved by the IID board (which is elected by all residents of the district, not just landowners). Major issues confronted in the approval of this historic transfer included clearly defining third party economic impacts due to short-term land fallowing, clarifying methods for quantifying conserved water and mitigation of environmental impacts due to reduced return flows to the Salton Sea. Water considered to be eligible for transfer from IID is to be made available primarily through the implementation of on-farm and system-wide conservation measures. Fallowing in the IID project is limited to the initial years of the project while conservation projects are put in place.

In contrast, the PVID to Metropolitan Water District (MWD) transfer is based on “creating” water through fallowing/reducing consumptive use, rather than improved efficiency. In 2004, MWD entered into a 35 year agreement with PVID – participating farmers within the district are paid a substantial one-time enrollment fee to participate and then paid an annual payment for years when they are asked to fallow and transfer their water to MWD. The annual payment is generally in excess of profits they would have realized had they farmed their land. Under the agreement, MWD has the flexibility to decide how much water it needs, ranging from 25,000 to 111,000 acre-feet, based on the availability of other supplies each year. The makeup of the PVID board is exclusively landowners and voting is weighted based on property values. The PVID/MWD transfer was approved easily by the PVID board.

In dry years, the California Department of Water Resources implements a Drought Water Bank, acting as middleman in securing water for transfers, including transfers from north of the Delta to south of Delta agricultural uses.<sup>23</sup> In 2009, the Drought Water Bank facilitated transfers of only about 76,000 acre-feet from north to south, compared to an initial goal of 600,000 acre-feet. Restrictions associated with high rice prices, the effects of fallowing rice irrigation on the threatened giant garter snake and local resistance to groundwater substitution for transferred surface water are thought by some observers to have hindered operation of the bank in 2009.<sup>24</sup>

### *The future*

Over the last decade, several academic studies, task force reports and position statements from various California stakeholders have called for changes to expand opportunities for voluntary water transfers. Making water transfers work to improve both water supply reliability and ecosystem health is likely to become even more important as the state

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<sup>23</sup> See [http://www.water.ca.gov/drought/docs/2009water\\_bank.pdf](http://www.water.ca.gov/drought/docs/2009water_bank.pdf) .

<sup>24</sup> <http://www.lib.berkeley.edu/WRCA/WRC/pdfs/GW27thNiblack.pdf>.

begins to implement new legislation to bring the Bay-Delta, the hub of California's water supply system, out of ecological crisis.<sup>25</sup>

Professor Brian Gray, in a study for the California Business Roundtable, the California Farm Bureau and other organizations, identified several "second generation" transfer issues that have arisen out of experience with transfers to date in California.<sup>26</sup> These issues include bringing greater coherence to the wide variety of sometimes conflicting transfer provisions that have evolved over time in California law; protection of third party interests; transfers to instream uses; conditions and compensation for the use of existing infrastructure (canals, aqueducts, etc) for transfers; and improving transfers under the CVPIA.<sup>27</sup>

Ellen Hanak, a researcher at the Public Policy Institute of California, notes in a detailed 2003 study of water transfers in California that issues associated with real or perceived adverse third party effects and local resistance to transfers that involve increased pumping of groundwater to replace surface water transferred out of the area of origin are significant.<sup>28</sup>

### *References for further reading on California*

Ellen Hanak, Who Should be Allowed to Sell Water in California? Third Party Issues and the Water Market, Public Policy Institute of California, 2003. Available at [www.ppic.org](http://www.ppic.org).

Gray, Brian E., "The Shape of Things to Come: A Model Water Transfer Act for California", 14 *Hastings W-N.W. J. Env. L. & Pol'y* 623, 636 (Winter 2008).

Brewer, Jedidiah, et al, "Law and the New Institutional Economics: Water Markets and Legal Change in California, 1987-2005, 26 *J. Law & Policy* 183213 (2008).

Water Transfer Issues in California, Final Report to the California State Water Resources Control Board by the Water Transfer Workgroup (June 2002). Available at <http://www.waterboards.ca.gov/waterrights/>.

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<sup>25</sup> For the California Department of Water Resources summary of recently passed legislation, see <http://www.water.ca.gov/news/newsreleases/2009/11092009waterpackagefactsheets.pdf>. For the EDF perspective on the package as it was developing and as it passed, see <http://blogs.edf.org/waterfront/>.

<sup>26</sup> Gray at 635, et seq.

<sup>27</sup> U.S. Senators Boxer and Feinstein recently filed legislation to help streamline transfers under CVPIA (S 1759).

<sup>28</sup> Hanak, *supra*.

## TEXAS

### *Brief Overview*

Outside of the Rio Grande basin, voluntary transfers of existing surface water rights in Texas are comparably less widespread than those taking place in California.<sup>29</sup> In part this stems from a lack of need for such transfers, as water demand has not yet strained existing supplies to a point where transfers are a strategy of first choice. However, it is likely that voluntary agricultural to urban transfers, intra-agricultural transfers and transfers to help meet environmental flow needs will become more attractive as the state's population grows and pressure on supplies increases.

Texas water law is somewhat unique among western states in that it contains a provision that purports to authorize transfer of a full paper surface water right, under certain conditions, rather than limiting transfers to historical consumptive use. Section 11.122(b) of the Texas Water Code provides:

(b) *Subject to meeting all other applicable requirements of this chapter for the approval of an application, an amendment, except an amendment to a water right that increases the amount of water authorized to be diverted or the authorized rate of diversion, shall be authorized if the requested change will not cause adverse impact on other water right holders or the environment on the stream of greater magnitude than under circumstances in which the permit, certified filing, or certificate of adjudication that is sought to be amended was fully exercised according to its terms and conditions as they existed before the requested amendment...*” (emphasis added).

A fundamental unresolved question in Texas water law is whether this provision can be read to trump Section 11.134(b)(3)(B), which provides that the Texas Commission on Environmental Quality (TCEQ) shall grant a water permit application only if “it does not impair existing water rights or vested riparian rights.” According to a 1995 regulatory guidance document from TCEQ’s predecessor agency, the Texas Natural Resource Conservation Commission (TNRCC), the water rights to be protected do not depend on whether they are senior or junior to the right sought to be transferred.<sup>30</sup>

Some aspects of Sec. 11.122 (b) were addressed by the Texas Supreme Court in *City of Marshall v. City of Uncertain*,<sup>31</sup> particularly with respect to whether notice and

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<sup>29</sup> For information on Rio Grande transfers, see Texas Commission on Environmental Quality, “*Water Rights and Water Marketing and the Texas Rio Grande Watermaster*,” presented at the U.S.-Mexico Water Summit, November 2005, available at [www.ibwc.state.gov/RG\\_Summit/6B\\_CR.pdf](http://www.ibwc.state.gov/RG_Summit/6B_CR.pdf) and Glenn Jarvis, “*Conversion of Irrigation Rights to Municipal and Industrial Rights: New Legislation, Court Cases and Transactions Affecting the Lower Rio Grande*,” presented at the 9<sup>th</sup> Annual Law of the Rio Grande Conference, April 2009, available at <http://glennjarvis.com>.

<sup>30</sup> Texas Natural Resource Conservation Commission, *A Regulatory Guidance Document for Applications to Divert, Store or Use State Water* (1995), at 27. Though it was issued before the 1997 amendment that added 11.122(b) to the Water Code this guidance has not been revoked by TCEQ.

<sup>31</sup> 206 S.W.3d 97 (Tex. 2006).

opportunity for hearing were required for applications under Sec. 11.122 (b). However, the Court did not reach fundamental statutory, and potentially constitutional issues, associated with the no injury rule of 11.134(b)(3)(B) as applied to vested rights that might be affected by a transfer under 11.122 (b).<sup>32</sup>

Note also that, unlike California, Texas law does not generally differentiate between conditions and review procedures for temporary transfers and permanent transfers.

Texas law appears to allow “conserved water” to be transferred under the applicable statutory notice and hearing procedures for amendments of water rights.<sup>33</sup> “Conserved water” is defined in Sec. 11.002(9) of the Texas Water Code as “that amount of water saved by a holder of an existing permit...through practices, techniques, and technologies that would otherwise be irretrievably lost to all consumptive beneficial use arising from storage, transportation, distribution or application.”

Inter-basin transfers of surface water rights also must meet certain conditions under Sec. 11.085 of the Texas Water Code. Sec. 11.085 (s) provides that “any proposed transfer of all or a portion of a water right [in an inter-basin transfer] is junior in priority to water rights granted before the time application for transfer is accepted for filing.”

### *Types of Transactions*

The most active surface water market in the state is in the Lower Rio Grande Valley, where water rights in the Amistad/Falcon reservoir system are frequently bought and sold on a temporary and permanent basis. Transfers include agriculture to agriculture transfers, as well as agricultural to municipal transactions. The more correlative nature of Lower Rio Grande water rights (as opposed to senior/junior distinctions in other areas of the state), the presence of a watermaster with strong accounting and enforcement procedures, and return flows being largely discharged outside the basin facilitate these transfers.<sup>34</sup>

Water transfers from irrigated agriculture to municipal use are also increasingly common in the Upper Rio Grande, particularly between the City of El Paso and El Paso County Water Improvement District No. 1.

Elsewhere in the state, such as the Colorado River Basin, there have been some in-basin transfers from irrigators to river authorities.<sup>35</sup>

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<sup>32</sup> For more detailed discussion of the *Marshall* case, see Howell, Emily, “Is the TCEQ “Hearing” Impaired? The Impact of *City of Marshall v. City of Uncertain* on the Availability of Contested Case Hearings for Water Use Permit Amendments,” 8 Tex. Tech. Admin. L.J. 299 (2007).

<sup>33</sup> See, e.g., Texas Water Code Sec. 15.703(a)(4), which allows the Texas Water Bank to accept deposits of conserved water for marketing.

<sup>34</sup> See n. 29, *supra*.

<sup>35</sup> Ronald C. Griffin and Gregory W. Characklis, “Issues and Trends in Texas Water Marketing”, *Journal of Contemporary Water Research and Education*, # 121, 29-33, at 30-31 (2002), available at [http://www.ucowr.siu.edu/updates/pdf/V121\\_A5.pdf](http://www.ucowr.siu.edu/updates/pdf/V121_A5.pdf).

While Texas does have a state “Water Bank” there are very few rights in the Bank and it has not functioned well.<sup>36</sup> There are at least two possible reasons for this: first, the fact that water rights cancellation provisions of Texas law are not aggressively implemented and second, the statewide nature of the Bank, which dilutes its ability to focus on local or regional in-basin transfers that may be most viable.<sup>37</sup>

Nevertheless, (and probably due in some significant part to the Lower Rio Grande Valley transfers) Texas is reported to be among the five “most active states” in a recent survey of transactions in 12 western states from 1987 to 2005.<sup>38</sup>

### *The Future*

The 2007 state water plan does not specify a particular amount of voluntary surface water transfers involving existing rights (excluding contract sales) necessary to help meet water demand in 2060. However, several water planning regions are contemplating “voluntary reallocation strategies” that include new transfers from agricultural use to urban use. The viability of those transactions, however, will likely depend on resolving the outstanding questions about transfer procedures and protections for vested junior water right holders, as well as the development of clear procedures for quantifying “conserved water” eligible for transfers.

In the big picture, however, the potential for surface water rights marketing in Texas may be limited by the fact that river authorities and other large water supply entities (cities and water supply districts) currently already hold a vast majority of the water rights in many basins, including those basins that are fully or nearly fully appropriated on paper. Thus, allocation (or re-allocation) of water is more about wholesale and retail transactions between these supply entities and their customers than marketing of underlying existing surface water rights.<sup>39</sup>

Finally, as the Senate Bill 3 process for setting environmental flow standards moves forward it can be anticipated that at least some basins will identify temporary or permanent voluntary transfers of existing surface water rights to instream flow as a desirable strategy to meet flow targets, especially through dry-year options and term leases. It remains to be seen whether this occurs through isolated two-party transactions, through an invigorated Texas Water Trust<sup>40</sup> or, most likely, both approaches. Already,

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<sup>36</sup> See Texas Water Code Ch. 15, subchapter K and <http://www.twdb.state.tx.us/assistance/waterbank/waterbankMain.asp> for information on the bank. Unused water rights placed in the bank are exempt from cancellation for a period of 10 years.

<sup>37</sup> Texas Water Code, Sec. 15.703(a)(7) allows TWDB to establish regional water banks, but it has not exercised this authority to date.

<sup>38</sup> Brewer, J. et al, “Water Markets: Western Water Transfers from Agricultural to Urban Uses, 1987-2005”, (2006). Study for National Science Foundation. Data based on all transactions reported to *Water Strategist*. The other top states were California, Arizona, Colorado and Idaho.

<sup>39</sup> See, e.g., Griffin, *supra*, at 30-31 (2002), available at [http://www.ucowr.siu.edu/updates/pdf/V121\\_A5.pdf](http://www.ucowr.siu.edu/updates/pdf/V121_A5.pdf).

<sup>40</sup> TX Water Code, Sec. 15.7031; [www.twdb.state.tx.us/assistance/waterbank/wtrust.html](http://www.twdb.state.tx.us/assistance/waterbank/wtrust.html)

the Trans Pecos Water Trust in far West Texas has leased over 2,000 acre-feet of unused water rights in the Rio Grande near Presidio and is working through the TCEQ process to add instream flow to those rights.<sup>41</sup>

*References for further reading on Texas*

Ronald C. Griffin and Gregory W. Characklis, “Issues and Trends in Texas Water Marketing” , Journal of Contemporary Water Research and Education, # 121, 29-33, at 30-31 (2002), available at [http://www.ucowr.siu.edu/updates/pdfn/V121\\_A5.pdf](http://www.ucowr.siu.edu/updates/pdfn/V121_A5.pdf).

Texas Water Development Board, A Texan’s Guide to Water and Water Rights Marketing (2003), available at <http://www.twdb.state.tx.us/publications/reports/WaterRightsMarketingBrochure.pdf>.

Numerous papers at prior Texas CLE conferences: see, for example, [www.utcle.org](http://www.utcle.org)

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<sup>41</sup> EDF helped establish the Trans-Pecos Water Trust and Ms. Kelly serves as a Trust board member.