

WATER MARKETS IN TEXAS

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KEY POINTS

- The best instrument for optimizing allocation of scarce water resources is the exercise of private property rights in a competitive marketplace, otherwise known as a water market.
- There are several barriers and impediments in Texas to well-functioning water markets, including legal uncertainties, local government intervention, supply concerns, and broader political, community, and social barriers.
- Ultimately, Texas' water laws should be reformed to remove current legal barriers and encourage the development of private water markets.

WHAT IS A WATER MARKET?

A water market is a legal mechanism fueled by economic incentives that paves the way for “voluntary redistribution of water resources” ([Texas Water Code, 1977/2017, Section 16.051\(d\)](#)). The Texas Legislature has instructed regional water planning groups to include in their plans the “voluntary transfer of water within the region using, but not limited to, regional water banks, sales, leases, options, subordination agreements, and financing agreements” ([Texas Water Code, 1977/2023, Section 16.053\(e\)\(5\)\(H\)](#)). Despite very different legal and regulatory environments, surface water and groundwater markets in Texas have developed, but not to the extent needed to provide water for the future needs of the state ([White, et al., 2017](#)).

BACKGROUND

The creation of water markets is critical to allowing the proper valuation of water that encourages the voluntary exchange and transfer of water rights and water. Effective water markets that allow competing users to value water incentivize four things: conservation, movement of water to higher end uses, protection of environmental flows, and ability of water right owners to sell all or a portion of their water.

Garmony and Wight ([2023](#)) reported that between 1987 and 2022 “over 2,350 individual surface water transactions ... reallocated over 4 million acre-feet (AF) at a total cost of \$1.3 billion” ([p. 11](#)). Several regions of the state are experiencing increasing water market activities, with the most active market regions being the Lower Rio Grande Valley (sales and leases of surface water

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rights) and the Edwards Aquifer (sales and leases of groundwater entitlements) ([House Committee on Natural Resources, 2016, p. 17](#)). There have also been market transactions in other regions, for example, a \$261 million contract by the cities of Midland, Abilene, and San Angelo to purchase groundwater in Pecos County ([Doreen, 2020](#)). In Central Texas, the Vista Ridge project currently transports up to 50,000 acre-feet per year of groundwater from Burleson County to San Antonio ([San Antonio Water System, n.d.](#)).

An emerging trend in Texas water markets is to achieve sound environmental outcomes ([House Committee on Natural Resources, 2020, p. 69](#)). Water trading for this purpose has accounted for a substantial amount of the markets in the western United States. These environmental outcomes address such issues as maintenance of environmental flows and recognition of the value of groundwater in-place rather than available for extraction.

PROPERTY RIGHTS AND WATER MARKETS

The best instrument for optimizing allocation of a scarce resource is the exercise of private property rights in a competitive marketplace. The Texas Legislature stated that “voluntary redistribution” of existing water supplies will account for most of the water needed to meet future demand ([Texas Water Code, 1977/2017, Section 16.051\(d\)](#)). Such “voluntary redistribution” envisions water markets in which the owners of a water right voluntarily sell a portion or all of their rights to a buyer for a specified

term or in perpetuity. This is much easier said than accomplished. An effective water market exists when transactions are not hindered by the law, although targeted and limited regulation can facilitate water markets. Private property rights in water must be clearly defined, enforceable, and freely exchanged.

BARRIERS TO WATER MARKETS

There are several barriers and impediments in Texas to well-functioning water markets. White, et al. ([2017](#)) explore these in detail.

1. **Legal uncertainties:** There are uncertainties about the legal scope and exercise of a water right.
2. **Local government intervention:** A local groundwater conservation district’s refusal to issue drilling permits to groundwater owners is an obstacle to water markets.
3. **Pricing uncertainty:** Water often cannot be priced efficiently because of the lack of markets.
4. **Reliability of supply:** The “junior rights” provision in controlling interbasin transfers is a prime example of this restriction. Lack of compliance with established water sharing agreements by third parties, such as river compacts and treaties, certainly has been a similar impediment.
5. **Environmental flows:** Increased off-channel diversion and consumption (including reuse), changes of use between basins and reduced return flows can affect availability of water.
6. **Area of origin impact:** Impassioned debate often surrounds the areas of origin about potentially decreased local economic output, diminished tax base, and effects on environmental flows.
7. **Interbasin transfers:** The review process of interbasin transfers is elaborate. Current law and rules have not resolved the impasse between the area of origin and the receiving basin.

8. Political, community, and other social barriers:

A discussion of moving water raises competing concerns and interests.

NEXT STEPS

To move forward, water markets in Texas should be based upon the following:

- Well-defined, understood, and legally recognized property rights in water that include the freedom to exercise those rights.
- Informed, voluntary buyers and sellers.
- The valuation of water through market prices.

The provision of water should occur through voluntary exchange within fully functioning markets operating under the protections for both groundwater and surface water rights upheld by the Texas Supreme Court ([Edwards Aquifer Authority v. Day, 2012](#)). The Texas Commission on Environmental Quality (TCEQ) and groundwater conservation districts should incorporate these protections in their rules, regulations, and practices. For the TCEQ, this would include enforcing the “first in time, first in right” principle for existing municipal, industrial, and other water users (who have historically avoided curtailment during drought), thus facilitating acquisition of more senior rights to

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avoid curtailment in a drought. For groundwater conservation districts, this would include incorporating the inherent correlative rights in groundwater acknowledged by the Texas Supreme Court in *Edwards Aquifer Authority v. Day* ([2012](#)).

CONCLUSION

Texas’ water laws should be reformed to remove current legal barriers that discourage the development of private water markets. Texas law should not impede private investment in water supply projects, hamper voluntary transfers of water, block interbasin transfers, or bureaucratize approval of water right amendments. Instead, Texas water law should be updated to embrace free market transactions that have been incorporated into other Texas statutes governing markets such as electricity, telecommunications, and insurance. ■

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