



Lone Star Chapter

Comments of the Lone Star Chapter of the Sierra Club to the Texas House Natural Resources Committee on Interim Charge #2 (Water Markets) – Submitted by Ken Kramer, Water Resources Chair – February 2, 2016

The Sierra Club appreciates the opportunity to present testimony to the Texas House Natural Resources Committee on the Committee's interim charge #2. As directed by the Speaker of the House the charge to the Committee is as follows:

“Evaluate the status of water markets in Texas and the potential benefits and challenges of expanded markets for water. Include an evaluation of greater interconnections between water systems through both engineered and natural infrastructure. Examine opportunities for incentives from areas receiving water supplies to areas providing those supplies that could benefit each area and the state as a whole.”

The water challenges that Texas has experienced historically, with a record of recurring droughts, and the current and anticipated pressures on our state's water resources and the environment of the state make it critical that Texas decision makers thoroughly understand and carefully assess the pros and cons of all reasonable measures, including water markets, to meet our state's future water needs and then act accordingly. As an organization that has been working on Texas water resources issues for literally the past half-century the Sierra Club believes that we have a valuable perspective to bring to this process of examining different approaches to meet the water needs of both the people and the environment of our state.

In that regard we would offer the following five observations that represent our view of the role that water markets play or might play in Texas, and we make recommendations accordingly:

(1) Any use of water markets as an approach to supplying water for consumptive uses should be based on an accurate determination of how much water is truly needed for those purposes. In the absence of that determination there is a risk that water marketing will subject ratepayers and taxpayers to paying for water in volumes far above what is needed while imposing on others the negative impacts that may accompany water transfers. Thus, the first priority of state water policy at this point should not be promotion of major water marketing projects but rather a comprehensive assessment of what Texas might be able to achieve in reducing water demands through advanced water conservation measures and more effective drought management. That is essential to establishing **a baseline of water needs** which may then better inform decisions about what additional water is truly required from water marketing or other water supply solutions.

If the State were to undertake a comprehensive study of what has been or is being achieved in water conservation in some communities in Texas and elsewhere in the nation and how those efforts

might be spread statewide, we might well find that Texas could dramatically reduce projected water demands, making a number of water marketing or other supply projects unneeded. Our 2015 report *Water Conservation by the Yard*, for example, discussed how two major water planning regions might reduce residential water demands simply by instituting reasonable ongoing limitations on outdoor watering without damaging landscapes.

Texas has made progress on water conservation over the past two decades, but we are far from seeing conservation practiced on a universal basis by water utilities throughout the state. A more concerted effort by the State of Texas to make conservation the norm is needed. A study of the maximum potential for conservation and efficiency in Texas would be a first step on that path.

Recommendation: The Texas Legislature should provide funding to the Texas Water Development Board to conduct a comprehensive assessment of the maximum potential for water conservation and efficiency in the state and to outline steps to move Texas forward in achieving that potential.

(2) A number of ways to augment water supplies that could be employed at the local level may be more cost-effective over the long term than expanded use of water markets and could avoid some of the potential “third party” impacts of major water transfers. In addition to water supply solutions such as curbing water loss in existing water distribution infrastructure – which is sometimes considered a conservation measure and sometimes described as a supply measure – there is considerable potential for the expanded use of rainwater harvesting, graywater systems, and other alternative on-site sources of water (capturing air conditioning condensate, for example), many of which may be implemented on a local and distributive basis without having to impose on other areas for water supplies.

For example, Texas may well be missing a great opportunity, given the enormous volume of new residential and commercial building that has and continues to take place in many parts of the state, by not promoting or requiring the use of water supply components such as rainwater harvesting, graywater systems, and use of alternative on-site sources of water in this new construction. If the state and local communities were aggressively to embrace these water supply augmentation methods, there would be the potential to absorb population growth more easily in terms of water demands.

Recommendation: The Texas Legislature should support and facilitate the use of water supply augmentation and conservation methods of a distributive nature at the local level, by various means, including an expansion of the PACE (Property Assessed Clean Energy) program to allow residential properties to take advantage of new funding options for installing energy and water efficiency equipment and related equipment.

(3) There certainly is a role for "water markets" in local or regional situations where marketing makes sense from a financial, environmental, hydrologic, and social perspective. Two examples of such water markets in Texas are in the southern portion of the Edwards Aquifer and in the Lower Rio Grande Valley. In the case of the Edwards, where you have a limited resource and a permitting and regulatory system for groundwater management, mechanisms such as leasing of water and “dry year” options (paying farmers not to pump groundwater for agricultural irrigation during periods of low rainfall) have been used to address water needs, including maintenance of spring flows for threatened and endangered species. In the Lower Rio Grande Valley there have

been transfers of water from agricultural irrigation to municipal water use as the cities in the area have been growing at a fast pace and farmland has been absorbed by that growth. However, we must recognize that even in these types of situations there is an impact or potential impact on third parties – in these cases on those businesses that sell farm equipment and supplies, for example, as the level of agricultural production is temporarily or even permanently altered in the areas where the businesses are located.

There is also the prospect that water markets may be used to provide water to maintain instream water flows and freshwater flows to bays and estuaries, which would provide enormous environmental benefits for the maintenance of fish and wildlife habitat, water quality, and the productivity of coastal nurseries (which in turn support economically important recreational and commercial fishing industries). There is a Texas Water Trust that provides a mechanism for the holding of temporary or permanent surface water rights that are unused or no longer needed by water rights holders and could be used for environmental flow purposes. Either private interests or state, regional, or local political subdivisions could lease or purchase those rights to be put in the Trust. Unfortunately, this mechanism has been rarely used thus far, and some modifications are probably needed to make it an effective tool.

Recommendation: The Texas Legislature should support the use of local and regional water markets in hydrologically connected areas where the use of such markets will provide water on a cost-effective basis while protecting the environment and minimizing or avoiding adverse third party impacts. The Legislature should also promote the use of the Texas Water Trust to preserve water for the environment, including consideration of transferring the administration of the Trust to the Texas Parks and Wildlife Department, the agency responsible for protection of the state's fish and wildlife resources.

(4) While certain local and regional water markets, or special tailored markets such as for environmental flow protection, make sense, trying to take water marketing to an extreme and establish a major state water grid to move massive amounts of water around the state of Texas does not. The financial cost of such an undertaking alone is likely to make the idea still-born. Just the cost of the energy that would be needed to move major volumes of water to the Panhandle and West Texas would be an obstacle to such a project. A 2007 study done for the River Network found that at least 13% of the nation's electricity use at that time was for heating, moving, and treating water. A study done by the California Energy Commission in 2005 showed that California's water related energy use accounted for 19% of that state's electricity, and likely that higher percentage in California than nationally was in part a reflection of the major transfers of water that characterize that state's water supplies. Texas has made progress in energy efficiency, but that progress could be undermined by a huge new energy hog in the form of a state water grid, a prospect that may explain support for this idea from some energy interests. Creating a new demand for energy on this scale probably seems like a great business development move for the electric power industry and other energy producers, but that is not what is best for Texans.

A massive state water grid, no matter how configured, is likely to pose a major threat to the environment in terms of potential impacts to groundwater sources and surface water flows, a major threat to landowners in terms of eminent domain, and a major threat to rural communities in terms of strains on their water supplies, as examples. The citizens of Texas already voted against a state water grid in the late 1960s, long before all the current environmental constraints, the growth of the property rights movement, and the rural backlash against proposed state projects such as the Trans

Texas Corridor. Selling Texas voters on a new state water grid proposal wouldn't be any easier this time. Moreover, the experience in California in its recent drought has demonstrated that a system of massive water movement does not guarantee water security.

Recommendation: The Texas Legislature should reject efforts to establish a state water grid that would attempt to move massive amounts of water around the state and perpetuate the excessive use of water while threatening the environment, property rights, and the future viability of rural communities.

(5) There is already a considerable sharing of water in this state - with large regional wholesale water suppliers such as North Texas Municipal Water District, Tarrant Regional Water District, the City of Houston, and others distributing or selling water to multitudes of water districts and municipalities within their respective areas, and many of these entities are already cooperating on water supply. These entities already have infrastructure projects in place or underway to provide large volumes of additional water to retail water utilities within their regions, and the State of Texas has already established funding mechanisms to provide state financial assistance to these entities as needed for their water projects. These funding mechanisms have included money for conservation and reuse, but thus far very few water suppliers are taking advantage of the new SWIFT funds for those purposes. Moreover, some of the funding for water infrastructure projects is going to entities that have not been aggressive in pursuing greater water conservation and efficiency and have not incorporated advanced conservation commitments into the projects being funded.

Recommendation: The Texas Legislature should continue to support efforts by wholesale and retail water suppliers to cooperate on the provision of water supplies to their respective customers but should also enhance the efforts of those suppliers to cooperate on and implement effective water conservation, drought management, and environmental flow protection measures for the long-term benefit of people and the environment.

In conclusion, our perspective is that water markets should be considered on a case by case basis as part of the path forward in securing our state's water future, but the state's top priorities in water policy should be to expand water conservation efforts, promote or require innovative local methods of augmenting water supplies that will have long-term benefits, and support responsible water development that is balanced by the implementation of more effective water conservation, drought management, and environmental flow protection measures on the part of wholesale and retail water suppliers. Any effort toward creating a massive state water grid will undermine these more reasonable and effective ways of meeting water needs and threaten state goals for environmental protection, property rights protection, and the health of rural communities.