



October 25, 2011

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SUBMITTED VIA E-MAIL: kathleen.ligon@twdb.state.tx.us

Re: Draft 2012 State Water Plan

Dear Ms. Ligon:

Please accept these comments as the formal written joint comments of the Lone Star Chapter of the Sierra Club, National Wildlife Federation, and Environmental Defense Fund on the draft 2012 State Water Plan. We appreciate the opportunity to provide input on this document.

Our organizations acknowledge the vast amount of work and effort that has gone into this latest update of the state water plan and the regional water plans that provide the basis for the state document. We are impressed with the wealth of information that the state water plan provides about our state's water resources, and we acknowledge the commitment that our state's leaders have made to comprehensive water planning on an ongoing basis, something that is not common among states across the country.

Our state's water policies have been evolving dramatically over the past decade and a half, and usually in a positive direction, as witnessed by the growing acceptance of the importance of water conservation as a means of addressing water demands and by statutory enactment of a process for formally identifying environmental water needs and setting standards based on those needs. *But Texas has a long way to go in devising a state water plan that will truly meet the needs of our people and our environment in the 21st century.*

While improved from the 2007 State Water Plan, the 2012 draft plan has many of the same weaknesses. It proposes to remedy many water shortfalls with outdated and expensive solutions. For example, in addition to the 26 proposed reservoir sites (up from 14 in the 2007 Plan), there is a series of proposed long-haul pipeline projects, which would create expensive and potentially

environmentally damaging impacts, while still not being a reliable resource given potential changes in climate. The most dramatic change between the 2012 and the 2007 plan is the cost of implementation. The cost for implementing the State Plan would rise from \$31 billion (in 2007) to \$53 billion due to increased construction cost, water purchasing costs, and increasing land costs related to mitigation.

In many respects the draft 2012 state water plan is a “place holder” based to a large extent on data that was gathered or used for the 2007 plan. New census data were not available. New information, such as the results of recent joint groundwater planning efforts and the standards for instream flows and freshwater inflows, generally was not incorporated into the plan. We do recognize that, at this point, the adoption of the 2012 plan is pretty much a foregone conclusion, since it is the culmination of regional water planning over the past five years.

Therefore, as we prepare to embark on the next round of regional and state water planning, our focus now will be on building on the progress made thus far and addressing the inadequacies of the current draft state water plan in order to better inform those future efforts. What follows is a discussion of the key issues that need to be addressed in the next round of regional and state water plans and comments on the policy recommendations that are included in the draft state plan.

Water Conservation

The role of water conservation as a water management strategy needs to be enhanced. Although the draft state plan envisions that one-fourth of the state’s future water demands would be met through municipal or agricultural water conservation efforts, there is much more that could be, and needs to be, accomplished by more aggressive conservation initiatives. In the 2012 plan, water conservation appears to be a focus primarily in areas with no alternative water supply sources. The goal should be to maximize conservation in all regions to postpone the need for new water as well as protect the sustainability of existing water supply.

San Antonio Water System pumps no more water today than they did 20 years ago, despite the tremendous population increase in San Antonio over that period. That is true because they have had an ambitious and effective water conservation program over the last decade and a half. If more water suppliers, such as big regional suppliers like the City of Houston, were to match that level of effort, water conservation would be a much more significant management strategy in future water plans.

We acknowledge the discussion regarding the use of total municipal per capita water use as an imprecise tool for comparing water use between municipalities. However, comparisons of water use of a common user group across years can

provide very useful information. For example, a look at total statewide per capita use over time can be used to demonstrate the limited extent of enhanced water conservation in the 2012 State Water Plan. Comparing Municipal Demand Projections (Table 3.3) and project supply volumes for the Municipal Conservation Strategy (Table 7.2) against State Population Projections (Table 3.1) provides a benchmark to illustrate the inadequacy of water conservation within the municipal use category as a mechanism for reducing per capita use.

| <u>Year</u> | <u>Statewide Per Capita Use (gpcd)</u> |
|-------------|--|
| 2010 | 166 |
| 2020 | 160 |
| 2030 | 156 |
| 2040 | 153 |
| 2050 | 151 |
| 2060 | 150 |

Such small projected reductions in statewide domestic per capita water use over the next five decades demonstrate the need to enhance the use of water conservation as a water management strategy. The state Water Conservation Implementation Task Force in 2004 recommended (using the same methodology for calculating per capita use as is used here) that the statewide goal for domestic per capita use should be 140 gpcd.

It simply is not reasonable to maintain that water conservation efforts over the next fifty years will only reduce per capita use by 16 gallons per day. In only a 30-year period, San Antonio reduced per capita use by more than 70 gpcd. As Texans, we can, and must, do much better than that. Failing to plan for significant advancements in water conservation sets an inadequate goal for using a limited resource efficiently and undermines the credibility of the entire State Water Plan.

Drought Management

Drought management needs to be incorporated as a water management strategy for all water user groups required to prepare drought contingency plans. With the exception of the regional plan for the Lower Colorado (Region K) and the early years of the regional plan for Region L, the state water plan and the regional water plans on which it is based continue to ignore the reality that *the Texas Water Code requires the preparation and submittal of drought contingency plans by a large number of water suppliers and water rights holders and these drought plans are expected to be implemented, obviously, in dry years!*

The state and regional water plans are intended to address such dry years but they rely mainly on proposing new water supplies to allow people to use as much

water as they would in a normal year without any restrictions – as if there were no drought contingency plans and as if those drought plans did not involve any reductions in water use at various stages of drought!

This continues to be a source of amazement and disappointment. These plans not only need to be submitted, but they need to be critically reviewed and revised in an iterative process that both educates the submitter and ensures best practices are adopted. If implementation of effective drought contingency plans by water user groups was included in the state and regional water plans, we would have a much more realistic estimate about how much additional water supply is really needed in dry years. Indeed, the San Antonio Water System notes publically that drought management efforts in 2009 resulted in a savings between 24,000 and 30,000 acre-feet at a unit cost of \$25 per acre-foot.

The failure to meaningfully incorporate drought management in the State Water Plan results in overstated water shortages, unrealistically high cost estimates, and proposals for unneeded projects.

Water Use by the Oil and Gas Industry

The use of water by the oil and gas industry – especially the heavy use of water for hydraulic fracturing – needs to be evaluated more thoroughly and incorporated into the planning for regions where that use is increasing dramatically. The draft 2012 plan acknowledges this issue (for example, on page 140 in the discussion of “Mining Water Demands”); however water demand projections for mining remain constant over the 50-year horizon. We appreciate the fact that the Texas Water Development Board contracted with the Bureau of Economic Geology to study mining water demand projections for the 2016 regional water plans. Unfortunately the Barnett Shale region and now the Eagle Ford Shale region are already being impacted by the dramatic expansion of hydro-fracking water use that was not foreseen in previous water plans or the current draft. Ignoring this potential impact in the 2012 Plan simply because it hasn’t yet been fully quantified presents a false picture in those regions where drilling is rapidly increasing.

Water Demand Projections

In developing population and water demand projections the Texas Water Development Board needs to evaluate the impacts of potential changes in immigration from south of the border and the increasing trend toward multi-family residential housing (including high-rise housing) in Texas cities. Recent studies indicate significant reductions in birth rates in Mexico, which may reduce pressure for out-migration and thus could decrease the population growth rate in Texas. In addition, the increasing attractiveness of

multi-family living in the central city may mean that some population growth is not going to be accompanied by the increases in water use that might otherwise result from suburban population growth and attendant outdoor landscaping.

Energy-Water Nexus

The increasing focus on the water-energy nexus may lead to a decrease in future water demands for steam-electric generation that is not reflected in the current draft state water plan.

The push for energy efficiency is accelerating; reliance on non-water-using renewable energy sources such as wind power and distributed solar is expanding, and clean air regulations and other factors may lead to the retirement of existing coal-fired power plants and prevent building new ones, for which water has traditionally been the cooling source. In addition, because reporting of water consumption by power plants doesn't include many of the evaporative losses, it is difficult to get an accurate forecast of use. These trends call into question the projection in the draft state plan (page 141) that steam-electric water use will increase by 121 percent over the next 50 years. Because almost 50% of all US water withdrawals are for power generation, ensuring accurate projections in this area is critical for long-term water planning.

Climate Change

Climate change will likely have an increased impact on traditional water management strategies. The State Water Plan proposes \$53 billion worth of water management strategies, most of which are likely to be adversely impacted by hydrologic changes associated with climate change.

We appreciate the discussion of the Future Variability of Climate included in the draft 2012 Plan. Such potential variability highlights the fact that strategies such as reservoirs may be susceptible to increased evaporation and decreased runoff, while non-structural strategies such as water conservation and drought management may be even more cost-effective compared to the 'traditional' strategies.

TWDB and the regional water planning groups need to address the issue of climate change and not ignore its implications for the state and its water resources. Texas needs to prepare for climate change and prepare state and regional water plans based on an acknowledgement that climate change is happening, that it may have profound effects on our water resources and demands, that it requires creative and innovative approaches not bound by traditional assumptions and strategies which may no longer make sense, that it may significantly affect population and growth trends, and that the state needs to make a commitment of financial resources sufficient to develop realistic

projections of the impacts of climate change and of options for responding to them.

Inter-regional conflicts

We are disappointed that the TWDB continues to neglect its responsibility to acknowledge and resolve interregional conflicts. One purpose of the regional water planning process is to prevent such conflicts, yet the Board continues to avoid its duties under 31 TAC §357.14 (c)(3). The conflict between Region C and Region D over the proposed Marvin Nichols reservoir on the Sulphur River continues as a conflict under any reasonable definition of that term, despite the Board ruling that no such conflict exists.

The 2012 Plan gives rise to a new conflict between Region K and Region L over use of the Simsboro Aquifer. Rather than confronting and resolving this conflict, the Board recommended that Region L denominate its project as an ‘overdraft’ of the Carizzo-Wilcox Aquifer. Such semantics do nothing to resolve the very real conflict over the use of the resource and do nothing to further the TWDB leadership role in the “conservation and responsible development of water for Texas.”

Environmental Flows

TWDB and the regional water planning groups need to assure that environmental flow standards adopted by TCEQ are incorporated into the fourth round of planning, and they need to evaluate water management strategies for other uses in light of those standards. Moreover, particularly for basin and bay areas where consensus recommendations were not developed and where adopted standards are far below levels supported by scientific assessments, regional plans should be free to address the provision of water for environmental flows over and above what the standards adopted by TCEQ may set as a minimum. We continue to maintain that environmental flow needs ought to be considered a water need in the state and regional water planning process, just as municipal, industrial, agricultural, and other such needs are so recognized.

Policy Recommendations

Our organizations have the following comments on the policy recommendations developed and presented by TWDB in the draft state water plan:

Issue 1 – Reservoir Site and Stream Site Designation – We oppose the designation of additional sites of “unique value for the construction of reservoirs” recommended in the 2011 regional water plans. The designation of unique

reservoir sites should not be lightly undertaken. It is disquieting that sites have not been recommended for removal from the list even when, for example, the reservoir has already been built (e.g., Muenster) or an off-channel version of the project has been substituted in planning (e.g., Texana Stage II). It is far from clear that there is an actual need to designate the proposed additional sites. Inclusion of a proposed reservoir in a regional water plan is no guarantee that such a reservoir is going to be pursued or that it will pass muster in the permitting process. Indeed some reservoirs proposed in the first rounds of regional water planning were dropped in later rounds of regional planning. Putting landowners within the footprint of a potential reservoir in such a state of limbo regarding the status of their land on the mere possibility that the area (which is usually not precisely defined) may be used someday as a reservoir is unjustified.

Although we understand that various state officials remain angry about the designation of the Neches River National Wildlife Refuge, it simply is not appropriate to suggest, as the draft Plan does, that the refuge was intended as a one-acre conservation easement. A more balanced treatment is needed.

We support the designation of the nine river stream segments of “unique ecological value” recommended in the 2011 regional water plans. Although the designation actually provides very limited protection for those streams, it is nevertheless an important recognition of the natural heritage value of those streams, most of which have been the focus of citizen protection efforts for years.

Issue 2 – Reservoir Site Acquisition – We oppose the establishment of a mechanism to acquire “feasible” reservoir sites. We start from the premise, of course, that in most instances there are more responsible alternatives to meeting true future water supply “needs” than the building of a surface water reservoir, so the acquisition of such sites would be unnecessary. In addition, such efforts at acquisition are costly, take private property unnecessarily, and the benefits are highly questionable. Available state funds can be put to better use. At a minimum, any such site acquisition should follow only after a thorough environmental evaluation and determination that the site likely would be appropriate for reservoir construction.

Issue 3 – Interbasin Transfers of Surface Water – TWDB maintains in the draft plan that existing “unreasonable restrictions” on the voluntary transfer of surface water from one basin to another should be eliminated, but it never identifies or discusses what those “restrictions” are, which ones are “unreasonable,” and why they are considered “unreasonable.” Restrictions on interbasin transfers were enacted by the legislature specifically to protect the basin of origin, which remains a critically important goal. Simply, lifting restrictions without proper study and consideration risks providing the appearance of short-term benefits at the expense of actual long-term sustainability. Furthermore, without explanation of what restrictions are recommended for elimination, meaningful public comment and discussion opportunities are precluded.

One of the statutory provisions that governs new, non-exempt interbasin transfers is the requirement that certain levels of water conservation be demonstrated by those proposing to seek authorization from TCEQ to bring water from another river basin into their own basin for their use. Is that something that TWDB considers an “unreasonable restriction” on interbasin transfers? If so, why would a demonstration that the applicant “has developed and implemented a water conservation plan that will result in the highest practicable levels of water conservation and efficiency achievable within the jurisdiction of the applicant...” before receiving a permit for an interbasin transfer of water” be considered “unreasonable”?

Issue 4 – The Petition Process on the Reasonableness of Desired Future Conditions – We believe that there is value in TWDB being able to review and provide official feedback to joint groundwater planning committees about proposed “desired future conditions” (DFCs) for groundwater in their planning areas. The fact that ultimately the planning committees might decide not to make any changes in the DFCs does not diminish the value of the professional expertise that TWDB is able to bring to the evaluation of those DFCs, which, at the very least, provides the public with a second opinion that helps them assess the appropriateness of the DFCs.

Issue 5 – Water Loss – We wholeheartedly support the recommendation that all retail public utilities should be required to conduct water loss audits on an annual basis, rather than the currently required five-year cycle. As our state grapples with water supply issues, it is imperative that existing water supplies be managed and stewarded well, and curbing water losses in distribution systems is central to that effort. The first step in curbing those water losses is a robust and ongoing program to identify those losses and act accordingly.

Issue 6 – Financing the State Water Plan – Any new mechanism for financing the water management strategies in the state water plan must include funding for the water conservation strategies currently in the plan and those which should be added as conservation becomes a larger part of the plan. Also, a financing mechanism must include funding to assist utilities in implementation of drought contingency plans, funding to assist in the implementation of environmental flow standards adopted by TCEQ and other environmental flow protection efforts (through, for example, the lease and/or purchase of water rights for preservation of environmental flows), and funding for research to establish more precise environmental flow protections. If Texas is to have a truly comprehensive and effective approach to the management of its water resources for people and the environment, the state must commit funds to address water issues on a holistic basis and not just push money at infrastructure projects, some of which are unnecessary and some of which may have negative impacts on achieving and maintaining other important water resources goals, such as the maintenance of

healthy rivers and streams and adequate freshwater inflows to bays and estuaries.

Conclusion

In conclusion, our organizations again express our appreciation for to the opportunity to submit comments on the draft state water plan, which is a key document for determining the future well-being of our state, its people, and its environment. We realize and acknowledge that grappling with water issues in a state as big and diverse as Texas is not an easy endeavor, and there are legitimate differences of opinion on how to move forward. But we must place the emphasis on finding and implementing water policy that promotes effective water management and water stewardship so that all valid water needs are addressed and so that we maintain the natural heritage of our state, which is central to our economy as well as our ecology. Our organizations will continue our efforts to be constructive participants in helping to shape decisions that will accomplish that mission.

Thank you for your careful consideration of these comments. Please don't hesitate to contact us if you should wish to discuss anything herein.



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