



April 25, 2016

Texas Water Development Board
PO Box 13231
Austin, Texas 78711

Via email: PUBLIC-COMMENT@twddb.texas.gov

Re: Public comments on the Draft 2017 State Water Plan

Dear Texas Water Development Board,

Please consider these comments on behalf of Save Our Springs Alliance on the Draft 2017 State Water Plan for Texas.

The Draft 2017 State Water Plan (“2017 Plan”) is an improvement on the 2012 State Water Plan (“2012 Plan”) in many ways. However, the 2017 Plan still fails to provide us with true water planning by offering a lengthy wish list of outdated and costly solutions to meet inflated water needs, instead of proposing innovative and efficient water solutions based on real need. For example, the 2017 Plan lists at least 25 reservoir projects, the vast majority of which plan to come online by 2020. The 2017 Plan also proposes several long-distance pipeline projects, which would create expensive and potentially environmentally damaging impacts, while still not being a reliable nor efficient water resource. The probable redundancies of these pipeline projects to serve true needs are not clearly addressed.

We urge the Texas Water Development Board to consider more innovative solutions to solving our water needs. Our state water plan should not assume that we will be using water the same in 2070 as we do now. In fact, your own numbers support that it is imperative to prioritize planning for and implementing conservation and innovation to *first reduce demand rather than build to over-utilize the supply side*.

1. The 2017 Plan overestimates municipal water demand.

The overall population and water demand projections for the 2017 Plan are similar to those in the 2012 Plan with a few noted exceptions. Texas’ population is expected to increase more than 70 percent between 2020 and 2070 from 29.5 million to 51 million, and overall water demand is projected to increase by 17 percent from 2020 to 2070.

However, according to the 2017 Plan, statewide municipal water needs in 2020 are approximately 400,000 acre-feet less than what was projected in the 2012 Plan and are expected to be about 8 percent lower in 2060 than was predicted in the 2012 Plan, due in part

Austin's water watchdog since 1992

to lower population projections and lower per capita water use rates in response to drought planning and conservation measures. Unlike the 2012 Plan, the draft 2017 Plan does not explain what per capita water use numbers the total municipal water demand projections are based on. Instead it alludes to Water Use Survey data, which is not readily available.

This data is important for understanding and accurately projecting municipal water demand. For example, the 2012 Plan used data reported from 2008, and projected an *increase* in GPCD by many major user groups as it planned for 2060. Dallas reported using 213 GPCD in 2008, but was projected at 252 GPCD in 2020 and 246 GPCD in 2060; Austin reported 171 GPCD use in 2008, but was projected to use 173 GPCD in 2020 and 169 GPCD in 2060; Houston reported an efficient 134 GPCD use in 2008 but was projected to use 152 GPCD in 2020 and 146 GPCD in 2060.

Yet, the record consistently shows a declining trend in GPCD, a record that can and should impact our state and regional water planning. We should not overpay for unnecessarily large infrastructure projects like reservoirs and pipelines -- or perhaps not invest in them at all -- if they do not scale back easily and may not be needed in the future. We also do not want to discourage conservation that we know is possible, by overstating demand and delivering water in excess of actual demand.

The 2017 Plan and its municipal demand projections should reflect the declining trend and take this record into account when considering what types of water management strategies to recommend.

2. The 2017 Plan's recommended water management strategies would provide far more water than is needed, even at inflated projected municipal demand.

The regional water plans are criticized for operating more as a wish list than any real planning document. This is evidenced by each plan's tendency to "over-plan."

For example, the 2017 Plan predicts that Region G will need 235,276 acre-feet in 2020 (32,314 for municipal use) growing to 565,566 acre-feet in 2070 (259,402 for municipal use). Yet, the 428 recommended water management strategies for Region G would provide 384,000 acre-feet in 2020, growing to 648,000 acre-feet in 2070. This amounts to over-planning by 15-63 percent – the type of over-planning that has become typical of Texas's regional and state water plans.

The 2017 Plan predicts that Region K will require 373,563 acre-feet of water in 2020 (7,881 of it for municipal use) growing to 512,304 acre-feet in 2070 (182,173 of it for municipal use). Yet, the 264 recommended water management strategies for Region K would provide 745,000 acre-feet in 2070 – 45 percent more water than is projected to be needed.

The 2017 Plan predicts that Region L will require 200,071 acre-feet of water in 2020 (72,636 for municipal use) growing to 482,943 acre-feet in 2070 (304,164 for municipal use). Yet, the 260 recommended water management strategies for Region L would provide 610,000 acre-feet in 2070 – 26 percent more water than is projected to be needed.

Although "over-planning" may initially sound like a positive step toward ensuring we have adequate water, in the case of the State Water Plan, it is problematic for three main reasons.

First, while the State Water Plan's projections are based on need in a drought of record, these water management strategies are not necessarily drought management strategies, so they cannot be turned on and off as actual need fluctuates the way it does in a drought. This could make for a lot of wasted water.

Second, people and industry are not the only things that need water. Such extreme over-planning puts fish and wildlife at risk due to the potential for de-watering our aquifers and rivers for unneeded water projects. Planning to take more water from aquifers and rivers than is needed to meet human water supply needs has a profound effect on the health of the region's ecosystems as well as on their economies, for example, in the case of impaired bays and estuaries.

Third, we have seen that municipal water demand is actually decreasing as we adopt water efficiency and water conservation measures permanently. As mentioned previously, the 2017 Plan also recognizes that the projected municipal water demand for 2060 has actually decreased by 8% from what was projected in the 2012 Plan. This means, our 2022 Plan will likely predict an even lower municipal water demand for 2060, 2070, and 2080.

Rather than use our water planning process to carefully select water supply projects that will meet projected water needs, while balancing the needs of our region's ecosystems, various communities, and future generations, the plan operates as a laundry list of projects, many of which are not truly vetted before being recommended by regional groups and are not supported by communities at the source or supply point.

a. The Vista Ridge water pipeline and integration projects are examples of poor water planning and should be removed from the 2017 Plan.

The 2017 Plan states, "[t]he goal of the water planning process is to ensure that we have adequate water supplies in times of drought" and to encourage "voluntary" transfers of water to meet our state's needs. Yet Vista Ridge proposes to pump "abundant" water from an aquifer 142 miles away to the City of San Antonio so that the City can avoid Stage III and IV drought restrictions even in a drought of record.

Although the Vista Ridge project was included in the Region L list of water management strategies, the Region L plan noted that the MAG-limited (and thus recommended size) for the Vista Ridge project is 19,442 acre-feet/year in 2020, increasing only to 34,894 acre-feet in 2070. However, the Vista Ridge contract calls for the delivery of 50,000 acre-feet per year, starting in 2020, and requires SAWS to pay for as much water as is delivered up to that amount, thereby providing no incentive to limit pumping to the MAG. At least one publicly available hydrological report, based on the state's currently used groundwater availability model, predicts Vista Ridge alone will cause the source area's DFCs to be exceeded prior to 2030 and possibly considerably sooner if other Simsboro projects come online.¹ No publicly available hydrological reports prepared for Vista Ridge proponents refute the cited report.

¹ GEORGE RICE, EFFECTS OF VISTA RIDGE PUMPING ON GROUNDWATER AND SURFACE WATER IN THE LOST PINES AND POST OAK SAVANNAH GROUNDWATER CONSERVATION DISTRICTS 3 (2015); RICE, EFFECTS OF VISTA RIDGE PUMPING AND ADDITIONAL PUMPING BY END OP, FORESTAR, AND LCRA ON GROUNDWATER AND SURFACE WATER IN THE LOST PINES AND POST OAK SAVANNAH GROUNDWATER CONSERVATION DISTRICTS 5, 10 (2016); *both reports are available at* www.NoVistaRidge.org/learn-more/documents.

Furthermore, the Vista Ridge well fields are located in Bureson and Milam counties, and it utilizes and affects the same Simsboro formation of the Carrizo-Wilcox Aquifer under Lee County, all of which are in planning Region G. The Vista Ridge project does not appear on Region G's list of recommended water strategies. The Simsboro formation also underlies Bastrop County in Region K, but Vista Ridge is not included on Region K's list either.

The controversial Vista Ridge project is currently facing financial troubles as well as popular opposition at the source, along the pipeline route, at the ratepayer level in San Antonio, and in the sensitive areas of the Edwards Aquifer. It will discourage conservation, place an unnecessary high burden on the ratepayers, and will violate local groundwater pumping standards. Therefore, the Vista Ridge project and related "integration" project should not be included as recommended water management strategies in the 2017 Plan.

3. The 2017 Plan does not include enough drought management planning and conservation.

Kudos to the 2017 Plan for including a section on drought management – something the 2012 Plan did not have. While we acknowledge the addition of this important section, even the 2017 Plan recognizes that most regional plans do not make drought management recommendations. Rather, they (and thus by adoption the State Plan) leave drought recommendations up to the local municipalities and utilities.

In fact, only Regions K and L made any drought management recommendations. Region K recommended demand reductions, ranging from 5 to 30 percent, for most municipal water user groups, regardless of needs, and Region L recommended all municipal water user groups reduce demand by 5 percent during drought. SAWS requested a demand reduction strategy with varying demand reductions from 2020 to 2070.

It will always be imprecise to plan for and recommend water management strategies in Texas without including drought management planning. Proper drought planning is especially important in light of climate change.

4. The 2017 Plan continues to ignore the true costs of the outdated, yet recommended, water management strategies.

The total capital costs of the recommended water management strategies in the 2017 Plan is estimated at \$62.6 billion, which includes costs of developing additional sources, conveying, treating, and saving water through conservation and other demand management strategies. This is up from \$53 billion in the 2012 Plan, and \$31 billion in the 2007 Plan.

The \$62.6 billion price tag does not include the billions in "hidden costs" of the large infrastructure projects such as reservoirs and pipelines. These costs include the energy and other O&M costs required to pump the to-be-developed water long-distances and then to treat the water and resulting wastewater. The plan says nothing about the damage that building reservoirs will do to our already limited free flowing streams, bottom land forests, and riparian farmland. The Plan does not mention what discharging more treated sewage into further depleted rivers will mean to fish, wildlife, recreation, and downstream communities. Although

the plan is quick to point out that new water supplies are needed for a healthy Texas economy, the plan does not consider the very real costs to our economy that these big infrastructure projects create.

Nor does it bother to calculate the risks that the most expensive plan projects will fail when they are needed the most – when prolonged drought or climate change leads to conditions even worse than the record drought of the 1950s.

By contrast, building a water efficient economy is the only way to avoid 90 percent of the billions in capital costs and virtually all of the O&M, economic risks, and environmental damage that the state plan would impose on all Texans.

Conservation is the cheapest and most reliable way to meet future water demands. Consider this critical and little known fact: Texas used less water in recent years than we did in 1974 or 1980, the two earliest years listed in TWDB's database. In other words, statewide per capita water use has declined faster than population has grown for 35 years. And we did that without hardly trying – or even noticing. Rising costs for water and for the energy required to pump, treat, and heat water are driving rapid water efficiency gains, especially among commercial and industrial water users. The biggest residential water users – upper and middle income homeowners with large lawns – are beginning to embrace landscaping with native and drought-tolerant plants. Besides saving water and money, these landscapes are beautiful and safer for children, pets, wildlife, and nearby streams by avoiding the need for pesticides, herbicides, and fertilizers.

The State Water Plan should require that the costs of major infrastructure projects incorporate the “hidden costs,” not just the initial capital costs. If we are to justify the expenditure of state and public dollars on these projects, we must also consider the very real costs of operating and maintaining the infrastructure, treating and integrating new water and resulting wastewater, impacting farmland, recreation potential, and wildlife, and the economic impact one project may have on downstream and source communities.

Thank you for considering these comments.

Sincerely,

/s/Lauren C. Ice

Staff Attorney
Save Our Springs Alliance