CENTRAL TEXAS WATER COALITION

May 24, 2021

VIA EMAIL TO PUBLIC-COMMENT@twdb.texas.gov

Ms. Melinda Smith
Water Supply Planning Division
Texas Water Development Board
P.O. Box 13231
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Re: Comments of Central Texas Water Coalition on Draft 2022 State Water Plan

The Central Texas Water Coalition (CTWC), a nonprofit organization advocating for responsible water management and conservation policies, appreciates the opportunity to submit the following comments on the Draft 2022 State Water Plan (the 2022 Plan) developed by the Texas Water Development Board (TWDB). We recognize the enormity of this task, and we appreciate the hard work of the Regional Water Planning Groups, their consultants, and the TWDB in compiling this document. The following comments are submitted for your consideration:

General Comments. We appreciate the treatment of the 2022 Plan as a "living document" that is updated every five years, since Texas is experiencing a number of significant changes in water supply and management. We must stay vigilant with our observations and data gathering, so that water planning can be relevant, useful, and successful in avoiding the disastrous consequences of inadequate or absent water supplies for a state with such significant population growth. The increased emphasis on water conservation is also an important component of the 2022 Plan, and we hope that emphasis continues in future plans.

Water Availability and Existing Supplies (Chapter 5). CTWC is concerned that surface water availability is significantly overstated in Chapter 5 of the Draft 2022 Water Plan, particularly in some regions such as Region K. These concerns originate with the surface water supply and modeling assumptions, which the Draft 2022 Water Plan assumes will remain generally stable, with a decline of 3% from 2020-2070 on a statewide basis. (*See* Page D-67, Chapter 5)

Despite the assertions in the 2022 Plan, surface water supplies that feed Region K's storage reservoirs (the Highland Lakes) appear to be declining. Data on inflows to the Highland Lakes shows statistically significant decreases in average annual inflows over the 1942-2020 period. For reference, average annual inflows reported by the Lower Colorado River Authority (LCRA) from 2008-2020 are about 50% of the averages from 1942-2007.

Within Region K, water management practices by the LCRA assume that historical inflows and inflow patterns to its storage reservoirs will repeat themselves in the future, relying on use of historical data to manage future water supplies. The CTWC is concerned that such an approach does not reflect the general consensus in the scientific community that Central Texas is likely to experience longer, more severe droughts in the future. These concerns are compounded by recent studies on the watershed of the Colorado River Basin from the Texas Water Development Board (Furnans et al, 2019) and Slade (Slade, 2020), noting the proliferation of a very large number of unpermitted or permit-exempt stock ponds in the watershed, the vast majority of which are not included in the naturalized flows of the Water Availability Modeling. (*See* references below) Other factors identified as contributors to the decline in surface water inflows to the Highland Lakes include the large number of unmonitored alluvial wells, the proliferation of noxious brush in the watershed, and higher ambient air temperatures. These factors create a problem with reliance on historical data and naturalized flows in the Water Availability Models that are so fundamental to the planning process. As acknowledged on Page D-67, Chapter 5 of the Draft 2022 Plan, changes over time to reservoir inflows are “not presently accounted for in the methodology” for assessing surface water availability. CTWC asks the TWDB to acknowledge these issues and develop tools and adjustments to incorporate and account for the observed declining inflow trends into water availability modeling, at least in the Lower Colorado River Basin within Region K.

Future Surface Water Availability (Chapter 5, Section 5.3). The CTWC has major concerns with the continued reliance on Firm Yield by many of the regions, such as is used by LCRA in Region K. The methodology of the Firm Yield calculation is very troubling because it allows storage within reservoirs to be drawn down to ZERO without providing any water reserves to cover the situation when future droughts are more severe than droughts observed during the period of record. In a river basin such as the one in the Region K Plan, the LCRA operates large water storage reservoirs under the terms of a TCEQ-approved water management plan, which establishes water management actions that may not be incorporated into the Region K Plan (such as the large volumes of water released from reservoir storage for environmental flows or for specific downstream customers). As we understand it, the surface water availability numbers used by Region K in its Region K Plan do not incorporate the details of LCRA's water management plan, and therefore, the water availability numbers presented by Region K may be substantially larger than the water that is actually present and available for use in the Highland Lakes. CTWC research, conducted by LRE Water,

indicates that under the terms of LCRA's TCEQ-issued water management plan, the required interruptible customer releases and environmental flow releases reduce the water available to firm water customers served by LCRA in Region K by up to 100,000 acre-feet per year. LCRA has reported that environmental flow releases alone in 2020 were expected to approach 140,000 acre-feet/year.

CTWC believes a “Safe Yield” approach to water management is needed in view of Region K's reliance on surface water reservoirs to provide water for a significant and continuously growing Central Texas population. Relying solely on the "Firm Yield" of Lakes Buchanan and Travis in today's water planning evaluations carries risks associated with rapid drawdown of the lakes in times of drought, particularly given the potentially very large interruptible and environmental flow releases required by LCRA's water management plan and the trend toward lower inflows into the Highland Lakes. We believe the reliance on a reservoir's Firm Yield for water planning is dangerous and akin to ERCOT’s poor risk management practices that did not plan for lower and longer than expected temperatures and require adequate protective winterization measures. Requiring a Safe Yield approach would add a prudent safety margin to protect against dangerously low water supplies within times of prolonged drought. The 2022 Draft Plan notes that some regions are incorporating a Safe Yield approach, and CTWC respectfully requests that each region be required to use a Safe Yield approach or justify why such an approach is not appropriate. TWDB's regional water planning rules should be amended to require for the accounting of all permitted and or required water uses/requirements, including interruptible and environmental flow releases, in the Firm and Safe Yield methodologies. This would help to address the water supply uncertainty regarding the frequency, duration, and severity of future droughts. CTWC appreciates that the need for measures such as these are being recognized in this Draft 2022 State Water Plan. Studies are also needed that would support the direct incorporation of climatology into forward-looking water planning processes and management.

Water Management Strategies and Projects (Chapter 7). The CTWC appreciates the work that has gone into the identification of many needed water management strategies described in Chapter 7 of the 2022 Plan. Conservation is one of the strategy types included in this Chapter (in Section 7.3.1), and we strongly recommend including water pricing as a water management strategy that each region must specifically address for all of its water user groups. Water prices are known to have impacts on water conservation efforts, and water sales may provide funding for the development of new water supplies or more efficient water management practices. In addition, pricing water below the cost of managing and delivering said water promotes waste and should be highly discouraged. The 2022 Plan states that "Municipal conservation strategies include a variety of activities, such as … stronger water conservation pricing structures that discourage waste, …" (*See* Page D-121, Chapter 8) CTWC respectfully requests a specific review and discussion on water pricing as part of each Regional Water Plan.

The CTWC wholeheartedly supports conservation as an essential strategy for sustaining water supplies throughout Texas and all of its water user groups. In Region K, we support the conservation strategies presented for agricultural irrigation but are concerned that those strategies may not be implemented without incentives such as higher water rates and outside funding for conservation projects. Water rates can incentivize water conservation, and revenues from appropriately priced water can fund efficiency and water supply projects.

In addition to describing the benefits of conservation and the various conservation-based strategies, CTWC requests that the Regional Planning Groups collect data that allows an accounting of the results of the conservation strategies implemented by the water user groups. Collecting data and verifying the savings associated with a conservation method or practice would assist the regions in making better decisions in future plans. With additional data on water savings, water user groups can identify their successes or deficiencies with respect to different conservation practices.

Conservation (Chapter 8). CTWC applauds the fact that Regional Water Planning Groups are now required to set specific per capita per day water use goals for each municipal water user group for each decade of the 2022 Plan. This information, presented in Chapter 8, will be useful for measuring conservation progress and successes. CTWC respectfully requests the inclusion of comparable goals for every water user group in these plans. Establishing water conservation metrics and goals for groups such as agricultural water users is a logical and reasonable next step toward achieving water savings through conservation, especially in view of the fact that agricultural water users continue to demand the largest quantities of water in the state.

Thank you for your consideration of our comments, and please let us know if we can be of assistance in this important work.

Sincerely,

Jo Karr Tedder

Jo Karr Tedder, President
Central Texas Water Coalition

References:

Furnans, Jordan, Keester, Michael, and Kennedy, Kirk (2019). “Final Report: Evaluation of Rainfall-Runoff Trends in the Upper Colorado River Basin (Phase Two)” – Texas Water Development Board Contracted Report #1800012283.

Slade Jr., Raymond M. (2020) “Runoff Inflow Volumes to the Highland Lakes in Central Texas: Temporal Trends in Volumes and Relations between Volumes and Selected Climatic Indices” Texas Water Journal, Volume 11, Number 1. Pages 32-60.