



To the Mayor and Members of the City Council

May 5, 2020

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SUBJECT: REGIONAL WATER PLANNING UPDATE

The purpose of this informal report is to provide an overview of the statewide water planning process, provide an update on the 2021 Initially Prepared Region C Water Plan, and summarize the projections and water supply strategies that affect the City of Fort Worth and its Water Utility. A public teleconference hearing is scheduled for May 26, 2020 to receive comments regarding the adopted 2021 Region C Initially Prepared Plan.

The current state water planning process has been in place since the 75th Texas Legislature passed Senate Bill One in 1997 and is administered by the Texas Water Development Board (TWDB). The Texas State Water Plan goal is to ensure that Texas has an adequate water supply in times of severe drought. The plan is updated every five years, with the last update occurring in 2017. To facilitate preparation of the plan, Texas is broken into 16 different planning areas by the TWDB. Fort Worth resides within Region C, which includes the majority of the upper Trinity River basin and all or part of 16 North Central Texas counties. Engineering consultants are retained by the planning groups in order to prepare the regional water plan, with costs associated with this work funded by the TWDB. The Region C Planning Group consists of 22 voting members representing agriculture, counties, electricity, environmental, groundwater, industry, municipalities, water districts/utilities, river authorities, and the public. Regional plans from the 16 different planning groups are compiled into the State Water Plan by the TWDB.

The regional plan must follow the format and content requirements dictated by the TWDB. The regional plan documents existing and historical population, water usage and water supplies by individual entities, user groups, and jurisdictions, including an analysis on historical growth and use trends. Population and water usage projections and associated water supply needs are developed for a 50-year planning cycle. Specific water supply and management strategies are identified, including the associated project costs and required in-service dates. Examples of water supply and management strategies include conservation, direct and indirect reuse, new reservoirs, desalination, aquifer storage and recovery, and transmission and distribution projects required to move existing supplies to the user. The plan presents planning level analysis only, with the anticipation that detailed engineering analysis, study, permitting and design would follow in the implementation of any recommended supply and management strategy.

Water supply strategies for the City of Fort Worth Utility outlined in the plan include continued implementation of water conservation practices and tools to further reduce water usage, utilization of drought management measures to curtail water usage in times of drought, direct reuse projects at Village Creek, Mary's Creek, and the TRA Denton Creek Water Reclamation Facilities, expansion of the Westside, Eagle Mountain, and Rolling Hills Water Treatment Plants, and additional supply from the Tarrant Regional Water District (TRWD). The cost estimate for the various recommended strategies (which excludes the cost of additional supply from TRWD) over the 50-year planning period is estimated at \$2.67 billion dollars. Of the strategies listed, conservation and reuse account for 31% of Fort Worth's (and TRWD's) future source of water supply.

Fort Worth Utility Service Population (Retail + Wholesale) and Dry-Year Demand (from Region C Plan)						
	2020	2030	2040	2050	2060	2070
Population Served	1,394,591	1,694,815	2,017,530	2,262,135	2,478,090	2,702,871
Demand/Supply (ac-ft/yr)	289,575	347,010	408,324	453,667	493,064	533,882
Total Supplies from Strategies	32,601	88,259	144,559	193,004	240,446	291,831



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TRWD provides the raw water supply that Fort Worth treats to potable water standards and distributes to its retail and wholesale customers. Water supply strategies for the TRWD outlined in the plan include continued implementation of water conservation practices, an aquifer storage and recovery pilot project, additional transmission capacity to convey Richland Chambers reuse water, construction of the Cedar Creek wetland and TRA reuse water project, construction of the Tehuacana water supply reservoir in Freestone County, development of groundwater from the Carrizo-Wilcox aquifer in Freestone and Anderson Counties, TRWD portion of the joint strategy (with North Texas Municipal Water District (NTMWD) and Upper Trinity Regional Water District (UTRWD)) for construction of the Marvin Nichols Reservoir, TRWD portion of a joint strategy (with NTMWD and UTRWD) to increase available water supply from Lake Wright Patman, and additional transmission pipelines necessary to convey the new water supplies to the customer base, the majority of which is located in Tarrant County. The cost estimate for the various recommended strategies over the 50-year planning period is estimated at 6.3 billion dollars.

TRWD Population and Dry-Year Demand (from Region C Plan)						
	2020	2030	2040	2050	2060	2070
Population Served	2,399,399	2,883,379	3,328,157	3,773,780	4,267,998	4,893,661
Water Demand (ac-ft/yr)	495,119	582,072	662,746	747,498	827,523	926,855
Total Supplies from Strategies	49,721	181,810	251,941	444,422	468,228	539,990
Total Supplies	536,746	665,313	731,906	921,219	942,054	1,011,887

The 2021 Initially Prepared Region C Water Plan was adopted by the Region C Planning Group on February 10, 2020. A public hearing teleconference will be held on May 26, 2020, with written comments from the public accepted through July 27, 2020. The final plans from the various planning groups are due to the TWDB by October 14, 2020, at which time they will be consolidated into the State Water Plan. TWDB State Water Plan and Region C Planning Group information, along with a copy of the 2021 Initially Prepared Region C Water Plan, is available at the following website:

<http://www.twdb.texas.gov/waterplanning/rwp/regions/c/index.asp>

If you have questions concerning this report, please contact Chris Harder, Water Director, at 817-392-5020.

David Cooke
City Manager