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MEMORANDUM

TO: T. Clay Schultz, Ph.D., Regional Water Project Development

Clay Schultz Digitally signed by Clay Schultz Date: 2025.09.15 07:31:27 -05'00'

THROUGH: Joe Koen, Regional Water Project Development, Northeast Region

Joe Koen Digitally signed by Joe Koen Date: 2025.09.11 09:24:09 -05'00'

FROM: Kylie Beard, Environmental Protection Specialist

Kylie Beard Digitally signed by Kylie Beard Date: 2025.09.02 11:14:09 -05'00'

SUBJECT: City of Denton, Denton County, Texas
TWDB SWIFT Project No. 51083
Ray Roberts Water Treatment Plant Expansion Project, Phase I
Total Commitment Amount: $195,845,000
Loan Nos. LM2401829, LM2501829, LM2601829, LM2701829, LM2801829

As required by the rules of the Texas Water Development Board (TWDB), 31 Texas Administrative Code (TAC) § 363.14 an environmental review has been performed for the Ray Roberts Water Treatment Plant (WTP) Expansion Project, Phase I, proposed by the City of Denton (City) in Denton County, Texas. The City is proposing to use $195,845,000 in financing from the State Water Implementation Fund for Texas (SWIFT) for planning, acquisition, design, and construction of the project. The Environmental Determination (ED) completed for the proposed project is based primarily on the Environmental Data Form (EDF)[1] received by the TWDB.

PURPOSE AND NEED

The City's total potable water treatment capacity is currently 48.9 million gallons per day (MGD). Continued residential, commercial, industrial, and wholesale growth within the City's public water service area is projected to exceed its 48.9 MGD capacity before 2030. Estimations for maximum-day projections in 2030 are approaching 60 MGD under normal conditions and higher during drought or emergency events. Failure to expand capacity would jeopardize the City's ability to maintain an adequate water supply as required by 30 TAC Chapter 290. Increasing the existing Ray Roberts WTP capacity from 20 MGD to 40 MGD would address both imminent demand and resiliency goals established by Denton Water Utilities.

[1] City of Denton (July 21, 2025). Environmental Data Form (EDF), Ray Roberts Water Treatment Plant Expansion Project, Phase I, Prepared by Freese and Nichols, Inc. Received by TWDB on June 17, 2025. The EDF is complete with the supplementary materials submitted to the TWDB on July 21, 2025.

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Leading the state's efforts in ensuring a secure water future for Texas

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PROJECT DESCRIPTION

The City of Denton proposes to expand its existing water treatment capacity from approximately 20 MGD to approximately 40 MGD. This has been part of the City's strategic long-term water supply plan to meet the projected water demands and improve system operations.

The proposed project is located on the south side of Lake Ray Roberts in Denton County, Texas, and includes the expansion of the Ray Roberts WTP treatment processes and facilities, rehabilitation of the raw water pump station, which pumps lake water to the WTP, and a new parallel raw water pipeline to provide redundancy and resiliency in the water supply to the WTP. The major components of these proposed improvements are summarized in the bulleted list below.

- Raw Water Pump Station Expansion
    - Repair existing pumps, piping, and valves
    - Add new pumps, piping, and valves to support additional treatment capacity and expansion of the site to the south
    - New pump station electrical building
    - Replace the fence, extending the property footprint
- Water Treatment Plant Expansion
    - New process/treatment components including but not limited to a pumped diffusion vault, flocculation/sedimentation basins, 6-million-gallon ground storage tank (clearwell), sludge mixing tanks, and membrane filtration
    - New membrane WTP chemical feed and storage buildings
    - New process vaults and pump stations
    - New process buildings and support facilities
    - New electrical equipment and buildings
    - New generators
    - Expansion of the existing high service pump station with two new vertical turbine pumps
- Raw Water Pipeline Installation
    - Install 2,195 linear feet (LF) of new water pipeline, parallel to the existing pipeline with valves and appurtenances

PUBLIC PARTICIPATION

The project is consistent with local, regional, and statewide planning. Coordination with the appropriate governmental agencies has been made and no adverse comments have been received.

The project does not involve any known, significant socioeconomic or environmental impacts, or historical or cultural resource issues that may affect the evaluation of project alternatives or implementation of the project, such as rate increases, displacement of persons, disproportionate effects on minorities or those living beneath the poverty line,

potential impacts to known cultural resources, waters of the U.S., or protected species, or similar public concerns. Therefore, no public meeting was required.

AGENCY COORDINATION

This environmental review included coordination with state and federal regulatory agencies, local authorities, and other stakeholders and interested parties regarding the project's potential impact. The City submitted notifications to and requests for input from all required parties. Some entities did not require a response. The respondents are listed below, and the results of coordination are summarized in the EDF and reflected in the environmental conditions listed below:

- Texas Historical Commission (THC), in accordance with the Antiquities Code of Texas (THC Tracking No. 202510000)
- United States Army Corps of Engineers (USACE), Regulatory Branch, Fort Worth District, in accordance with Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act of 1899 (Project Number SWF-2025-00223)
- Texas Parks and Wildlife Department (TPWD), Wildlife Division, Ecological & Environmental Planning Program, Austin, in accordance with the Endangered Species Act of 1973, as amended; Migratory Bird Treaty Act; Texas Parks and Wildlife Code; and other applicable regulations (TPWD Project No. 54809)
- United States Fish and Wildlife Service (USFWS), Arlington Ecological Services Field Office, in accordance with the Endangered Species Act and statutes affecting other federally protected species (USFWS Project Code 2025-0085265)
- TWDB, National Flood Insurance Program (NFIP) State Coordinator, pursuant to the Flood Insurance Reform Act of 2004, federal Executive Order 11988, Texas Water Code Section 16.315, and local floodplain development ordinances
- Local Floodplain Administrator pursuant to the Federal Emergency Management Agency's (FEMA) NFIP

Texas Historical Commission

In a review request to the THC, dated May 2, 2025, Freese and Nichols, Inc., on behalf of the City, indicated that according to the THC Archeological Sites Atlas (TASA), there were no historic markers, historic standing structures, or historic properties listed in the National Register of Historic Places, State Antiquities Landmarks, or Recorded Texas Historical Landmarks within the proposed area of potential effect (APE) or within the one-kilometer search radius. One cemetery appears within the one-kilometer records search radius. A very small portion of the existing water line easement has been previously surveyed. In total, four previously studied survey areas and eleven previously recorded archeological sites appear within the one-kilometer search radius. Many of the previously recorded sites were inundated after completion of the Lake Ray Roberts dam in 1987. One of the eleven sites is within the proposed APE and included historic standing structures. No further work was recommended. The structures were not observed during the pedestrian site visit. The Davis Cemetery is approximately 120 meters by 75 meters. According to the TASA, grave

markers range in date from the 1870s to 1940s. The TASA record is from 1980 and recommended archival work only. The cemetery is currently inundated.

In correspondence dated June 2, 2025, THC staff concurred that no historic properties, archeological artifacts or sites, or cultural resources appeared to be present or affected by the project as proposed (THC Tracking No. 202510000). It was noted that additional Section 106 review would be necessary for work on USACE property.

United States Army Corps of Engineers

The proposed project is located on the south side of Lake Ray Roberts, in Denton County, Texas. One concrete-lined, unnamed stream was identified within the project area, crossing the pipeline alignment. The stream is proposed to be avoided by other-than-open-cut construction techniques. As such, there are no proposed discharges of dredged or fill material in potential waters of the U.S. (WOTUS). The USACE, Fort Worth District Office, Regulatory Branch staff were given the opportunity to review the project (USACE Project Number SWF-2025-00223) and in a letter dated May 8, 2025, determined that because the water line installation that crosses the unnamed stream that may qualify as WOTUS under the jurisdiction of the USACE, will use trenchless methods for installation, no permit would be required.

The USACE letter also indicated that because the proposed project would be partially located on USACE-owned land, written approval must be obtained from the Operations and Real Estate Divisions. Upon further discussion with the Ray Roberts Lake manager and Operations Division, including a meeting on May 16, 2025, with follow-up correspondence, the USACE determined that the proposed project would qualify for a categorical exclusion (CE) under USACE rules and would not require further archeological surveys, but would need tribal consultation and coordination with the State Historic Preservation Officer under Section 106 of the National Historic Preservation Act of 1966. This coordination will occur and the USACE CE will be issued during the design phase of the project.

Texas Parks and Wildlife Department

The TPWD Wildlife Division, Ecological & Environmental Planning Program staff reviewed the project in accordance with the Texas Parks and Wildlife Code, and provided a response dated May 27, 2025 (TPWD Project No. 54809). Based on their review, TPWD staff did not anticipate significant adverse impacts to rare, threatened, or endangered species, or other fish and wildlife resources, to result from the proposed project. While some preferred habitat for species of greatest conservation need (SGCN) was identified in the area, the City does not anticipate impacts because most work will occur within the developed WTP and pump station sites.

United States Fish and Wildlife Service

The USFWS Arlington Ecological Services Field Office, in accordance with the Endangered Species Act and statutes affecting other federally protected species, was given the

opportunity to review the project through the Information for Planning and Consultation (IPaC) system (Project Code No. 2025-0085265). The USFWS technical assistance letter dated June 13, 2025, issued a *No Effect* determination for the listed species in the project area and a formal Section 7 consultation was not required.
No known occurrences of or potential habitat for federally listed candidate, threatened, or endangered species were present within or adjacent to the project area during site visits. There was no designated critical habitat within the project area.

Local Floodplain Administrator and Texas NFIP State Coordinator

To ensure compliance with FEMA requirements, the City notified the NFIP State Coordinator. In a letter dated May 6, 2025, the NFIP State Coordinator communicated that all project activities should be conducted in accordance with the community's flood damage prevention ordinance requirements, to include coordination with other state and federal agencies as well as any other requirements for communities participating in the NFIP that the project may occur within.

The City also coordinated with the City of Denton floodplain administrator (FPA). The FPA provided the following information: any development within the floodplain would require a floodplain development permit. Underground facilities should be restored to pre-project conditions while any structures within 200 feet of the floodplain would need to be elevated/floodproofed to 30 inches above the adjacent base flood elevation. Since FEMA has not defined a 500-year floodplain in the area, regulations related to that would not apply.

This environmental finding is conditioned to require a floodplain development permit prior to clearing or construction activities within a Special Flood Hazard Area in order to comply with requirements of the Federal Emergency Management Agency regarding implementation of the National Flood Insurance Act, Flood Disaster Protection Act, National Flood Insurance Reform Act, Federal Executive Orders 11988 and 11990, and to comply with related state statutes.

CONDITIONS AND RECOMMENDATIONS

An environmental review of the project has been completed consistent with the guidelines provided in 31 TAC § 363.14. The environmental review is documented by this ED, which contains environmental conditions that will be applied to the project to avoid significant adverse impact on floodplains, cultural or historical resources, threatened or endangered species, and protected migratory bird species.

The TWDB may not fund testing, remediation, removal, disposal, or related works for contaminated or potentially contaminated materials. However, the project proponent should ensure that, if found, such materials are tested, removed, and disposed of in accordance with applicable state and federal laws.

The project must comply with the following special and standard environmental conditions:

Special Environmental Conditions

- To avoid potential impacts to waters of the U.S., including wetlands, water line crossings of waterways will be performed by a trenchless method (USACE No. SWF-2025-00223).
- Consistent with the Flood Insurance Reform Act of 2004, federal Executive Order 11988 as amended by EO 13690, Texas Water Code Section 16.315, and local floodplain development ordinances, a floodplain development permit will be obtained from the local floodplain administrator prior to construction in, across, or under a Special Flood Hazard Area, and any requirements contained therein will be adhered to.

Standard Environmental Conditions

- Consistent with the TWDB Supplemental Construction Contract Conditions (TWDB-0552), the City of Denton (City) will abide by the standard emergency condition for the discovery of cultural resources.
- Consistent with the TWDB Supplemental Construction Contract Conditions (TWDB-0552), the City will abide by the standard emergency condition for the discovery of threatened and endangered species.

Therefore, it is recommended that an Environmental Determination be issued.