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MEMORANDUM

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

Clay Schultz Digitally signed by Clay Schultz Date: 2026.07.27 14:07:29 -05'00'

THROUGH: Joe Koen, P.E., Regional Water Project Development

Joe Koen Digitally signed by Joe Koen Date: 2026.07.20 11:03:50 -05'00'

FROM: Kylie Beard, Environmental Protection Specialist

Kylie Beard Digitally signed by Kylie Beard Date: 2026.07.15 08:31:40 -05'00'

SUBJECT: North Texas Municipal Water District, Fannin County, Texas
TWDB SWIFT Project No. 51103
North System Raw Water Pipelines
PN642
Total Commitment Amount: $641,695,000
Loan No. L1002218

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 North System Raw Water Pipelines project, PN642, proposed by the North Texas Municipal Water District (District) in Fannin County, Texas. The District is proposing to use $641,695,000 in financing from the State Water Implementation Fund for Texas (SWIFT) program for acquisition, design, and construction of an 84-inch 27-mile long pipeline that will convey water from the Lake Texoma Pump Station to the Texoma Balancing Reservoir near Howe, Texas, and to construct an 84-inch 9-mile pipeline that will connect the expanded Leonard Water Treatment Plant (WTP) to the existing Texoma-to-Wylie raw water pipeline (RWPL). Both of these pipelines will allow the District the ability to provide treated water to its members and customer cities from the available water supply from Lake Texoma. The Environmental Determination (ED) completed for the proposed project is based primarily on the Environmental Data Form (EDF)[1] received by the TWDB.

The two pipelines will be constructed in separate phases. This Environmental Determination (ED) assesses the 9-mile pipeline between the Leonard WTP and the Texoma-to-Wylie RWPL, which is identified by the District as PN642.

PURPOSE AND NEED

[1] North Texas Municipal Water District (July 2, 2026). Environmental Data Form (EDF), North System Raw Water Pipeline Project, PN642. Prepared by Freese and Nichols, Inc. Received by the TWDB on March 13, 2026. The EDF is complete with the supplementary materials submitted to the TWDB on July 2, 2026.

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L'Oreal Stepney, P.E., Chairwoman | W. Brady Franks, Board Member | Ashley Morgan, Board Member
Bryan McMath, Executive Administrator

The purpose of the proposed project is to convey raw water from the Texoma-to-Wylie RWPL to the Leonard WTP Terminal Storage Reservoir located in southwest Fannin County to deliver additional treated water to meet the needs of a growing service area. The proposed pipeline will allow for water from Lake Texoma to be blended with Bois d'Arc Lake raw water that will be treated at the Leonard WTP. The District provides wholesale, treated water to approximately 80 cities, towns, communities, special utility districts, and water districts within the North Texas region.

PROJECT DESCRIPTION

The proposed project is a RWPL to connect the Texoma-to-Wylie RWPL to the Leonard WTP Terminal Storage Reservoir in southwest Fannin County, Texas. The new pipeline would consist of approximately nine miles of 84-inch pipeline connecting to the Texoma-to-Wylie RWPL approximately 1,570 feet northeast of the intersection of County Road 633 and County Road 5005 and would travel northeast across private properties, County Road 5005, Pot Rack Creek, County Road 5010, County Road 5020, Indian Creek, Bailey Creek, Delba Creek, along County Road (CR) 5025, CR 5030, CR 5035, Farm-to-Market Road (FM) 981, State Highway 78, and NTMWD Way to the Leonard WTP located approximately 615 feet east of the intersection of NTMWD Way and the former CR 4960. The proposed pipeline would accommodate growing water demand by allowing for water from Lake Texoma to be blended with Bois d'Arc Lake raw water that will be treated at the Leonard WTP. The proposed project would be constructed within a 100-foot-wide permanent easement. Temporary construction easements are proposed and are generally 100 feet wide by 200 feet long to allow for equipment staging areas and construction equipment turnarounds.

The project components covered by this environmental assessment include:

- Construction of approximately nine miles of 84-inch pipeline with appurtenances
- Construction of a mixer vault and associated appurtenances at the existing Leonard WTP
- Access roads within the 100-foot-wide permanent easement at the western terminus (approximately 760 feet long) and at Indian Creek and Bailey Creek (approximately 1,750 feet long)

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

The District's environmental impact assessment included coordination with state and federal regulatory agencies, local authorities, and other stakeholders and interested parties regarding the project's potential impact. The District 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, in accordance with the Antiquities Code of Texas (Texas Antiquities Permit No. 32373, THC Tracking No. 202604665) State Historic Preservation Officer, in accordance with the National Historic Preservation Act
- 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-2025-00119, Nationwide Permit 58 for Utility Line Activities for Water and Other Substances)
- 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. 57460)
- United States Fish and Wildlife Service (USFWS), Texas Coastal & Central Plains Ecological Services Field Office, in accordance with the Endangered Species Act and statutes affecting other federally protected species (USFWS Project Code 2025-0017925)

The District also coordinated with the following entities and no response was required or received from them.

- National Flood Insurance Program (NFIP) State Coordinator and local floodplain administrator, pursuant to the Flood Insurance Reform Act of 2004, federal Executive Order 11988, Texas Water Code Section 16.315, and local floodplain development ordinances

Texas Historical Commission

The THC was given the opportunity to review the project. A cultural resources survey[2] was performed under Texas Antiquities Permit No. 32373. The survey report was reviewed by the THC staff in accordance with the Antiquities Code of Texas (THC Tracking No. 202604665). The THC staff concurred that no historic properties, archeological sites, or other cultural resources would be affected by the project, in correspondence dated February 5, 2026.

[2] AR Consultants, Inc. (January 9, 2026). Cultural Resources Survey of the Proposed Texoma to Leonard Raw Water Pipeline, prepared for Freese and Nichols, Inc. on behalf of the North Texas Municipal Water District, Texas Antiquities Permit No. 32373.

United States Army Corps of Engineers

The USACE, Fort Worth District Office, Regulatory Branch staff were given the opportunity to review the project (USACE Project Number 2025-00119) and aquatic resources delineation report dated January 5, 2026, prepared by Freese and Nichols, Inc. On March 16, 2026, the USACE verified that the project works appeared to be authorized under Nationwide Permit 58 - Utility Lines Activities for Water and Other Substances with mitigation requirements.

The delineation report identified nine intermittent streams (0.75 acres), eight ephemeral streams (0.09 acres), two forested wetlands (0.25 acres), and one pond (0.03 acres) that would be crossed by the pipeline alignment, with a total potential waterbody impact of 1.12 acres resulting from the proposed project. Named intermittent streams include Pot Rack Creek (Stream 2), Indian Creek (Stream 6), Bailey Creek (Stream 7), Delba Creek (Stream 9), and Bear Creek (Stream 10). There was one named ephemeral stream, Brushy Creek (Stream 8).

A Conceptual Mitigation Plan received by the USACE on September 23, 2025, and prepared by Freese and Nichols, Inc. will be implemented concurrently with project construction. Additionally, 0.08 mitigation credits will be purchased from the Arnold Creek Mitigation Bank prior to any ground-disturbing activities within waters of the United States.

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 December 15, 2025, TPWD Project No. 57460. The TPWD made recommendations to prevent impacts to protected aquatic and terrestrial plant and animal species such as bird, mammal, crustacean, amphibian, insect, and reptile species of greatest conservation need, the state-listed threatened wood stork (*Mycteria americana*), and the federally proposed threatened species, Monarch butterfly (*Danaus plexippus*), whose habitat may occur in the project area.

In correspondence dated February 2, 2026, Freese and Nichols, Inc., on behalf of the District, responded regarding their commitment to the recommendations. In order to mitigate or avoid potential impacts, TPWD recommendations are summarized as environmental special conditions in this ED.

United States Fish and Wildlife Service

The USFWS Texas Coastal & Central Plains 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. 2025-0017925). The USFWS consistency letter dated May 1, 2026, issued a *No Effect* determination for three listed species in the project area and a *Not Likely to Adversely Affect* for the Texas fawnsfoot (*Truncilla macrodon*; threatened); formal Section 7 consultation was not required. Mitigations for impacts to this mussel were not required.

An August 26, 2026 threatened and endangered species report based on a desktop review and eleven field visits conducted by Freese and Nichols from fall 2024 through spring 2025 found that impacts to federally listed species were not anticipated. The alligator snapping turtle (*Macrochelys temminckii*; proposed threatened) and Texas fawnsfoot may inhabit streams in the project area; however, impacts to larger streams within the proposed project area will be avoided using trenchless construction methods.

Monarch butterflies (*Danaus plexippus*) are listed as proposed threatened in Fannin County. Monarch butterflies undergo long-distance migrations throughout North America and lay their eggs on obligate milkweed host plants in a variety of forested and grassland habitats. The proposed project area includes pasture, which may provide nectaring plants and/or milkweed. Milkweed, adult monarch butterflies, and a monarch caterpillar were observed during site visits. Therefore, the proposed project area may include potential habitat for the monarch butterfly. If this species becomes federally listed, or if federal guidance is issued, then a re-evaluation of the project's potential impact on this species and consultation with the USFWS would be required prior to construction.

Additionally, the report assessed potential impacts to bald and golden eagles. Two bald eagles and two nests were observed during the pedestrian surveys. The nest locations were recorded, and a 660-foot buffer was added to the plans. The proposed permanent easement has been shifted to be outside the buffer. However, the existing access road intersects the 660-foot buffer. Work in this area would be limited to adding gravel to the existing road and driving construction equipment on the road. The road is currently in use as part of regular agricultural activities. Due to existing levels of disturbance, no impacts to the eagle nests from proposed construction activities are expected. IPaC consultation did not recommend or require a permit for the project.

There was no designated critical habitat within the project area.

Local Floodplain Administrator

To ensure compliance with FEMA requirements, the District notified the local floodplain administrator for Fannin County in a letter dated November 10, 2025. No response has been received, but receipt has been documented.

The project appears to cross at least seven 100-year floodplains, as designated by the Federal Emergency Management Agency (FEMA) (Pot Rack Creek, Indian Creek, Bailey Creek, Delba Creek, Bear Creek, Thornton Lake, and Lee Creek). Projects involving construction in the 100-year floodplain, including replacement or borings, require a floodplain development permit from the local floodplain administrator prior to construction in the 100-year floodplain.

This environmental finding is conditioned to require a floodplain development permit prior to clearing or construction activities within any 100-year floodplain or floodway 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 results of this environmental review are documented in this Memorandum, which includes 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 and local ordinances.

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

<u>Special Environmental Conditions</u>

- To avoid potential impacts to habitat for the Texas fawnsfoot (*Truncilla macrodon*) and alligator snapping turtle (*Macrochelys temminckii*), waterline crossings of large waterbodies, specifically Stream 2 - Pot Rack Creek, Stream 9 - Delba Creek, and unnamed Stream 13, as identified in the January 5, 2026, Freese and Nichols, Inc. Aquatic Resources Delineation Report will be performed by a trenchless method, with bore pits located outside aquatic habitat.

- Consistent with Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act of 1899, the proposed project will comply with the terms and conditions of the United States Army Corps of Engineers (USACE) Nationwide Permit 58 for Utility Line Activities for Water and Other Substances, which includes the following two special conditions related to wetland mitigation (USACE Project No. SWF-2025-00119).
    - The permittee shall implement and abide by the mitigation plan titled “Conceptual Mitigation Plan" prepared by Freese & Nichols, received September 23, 2025, except where changes are necessary to comply with special conditions listed below. The permittee shall implement the mitigation plan concurrently with the construction of the project. Completion of all elements of this mitigation plan is a requirement of this permit.
    - The permittee shall debit 0.08 credit from the Arnold Creek Mitigation Bank, in compliance with the provisions of "Mitigation Banking Instrument, SWF-2018-00121, Arnold Creek Mitigation Bank” dated March 14, 2022. This debit shall compensate offsite for unavoidable adverse project impacts that would not be compensated for by onsite mitigation. The permittee shall complete the mitigation bank transaction and provide documentation to the USACE that the transaction has occurred prior to commencing any ground-disturbing activity within waters of the United States.

- As per an agreement with the Texas Parks and Wildlife Department (TPWD), Ecological & Environmental Planning Program (TPWD Project No. 57460), to ensure compliance with Chapters 12, 57 , 64, 67, and 68 of the Texas Parks and Wildlife Code, and the Endangered Species Act of 1973, as amended, the Migratory Bird Treaty Act, and applicable federal regulations pertaining to bird, mammal, crustacean, amphibian, insect, and reptile species of greatest conservation need, the state-listed threatened wood stork (*Mycteria americana*), and the federally proposed threatened species, Monarch butterfly (*Danaus plexippus*), the following measures will be implemented:
    - Vegetation clearing must be excluded during the general bird nesting season and hoary bat (*Lasiurus cinereus*) pupping season, March 15 through September 15, to avoid adverse impacts to breeding birds and bats. If vegetation clearing during this time is unavoidable, the area proposed for disturbance will be surveyed by a qualified biologist to identify occupied nests and pupping habitat, not more than five days prior to clearing activities. If occupied nests or bat roosts or hibernacula are observed during surveys, a vegetation buffer area of no less than 100 feet in diameter will remain around the nest or roost until all young have fledged; however, the size of the buffer zone depends on various factors and can be coordinated with the local or regional United States Fish and Wildlife Service (USFWS) office.
    - If the project area downstream of the pool in Stream 6, Indian Creek, as demonstrated in the map attached to this construction contract, is anticipated to be inundated during construction activities, the North Texas Municipal Water District (District) will stop work and conduct a mussel survey as well as coordinate with the TPWD Kills and Spills Team (KAST) prior to the recommencement of project activities at this site. Survey reports will be submitted to the TWDB.
    - The length of trenches left open at any given time during construction will be minimized. Trenching and backfilling activities will be kept close together in time. Trenches and excavation areas will be covered overnight and/or inspected every morning or if left open longer than two daylight hours to ensure no wildlife species have been trapped. If trenches cannot be backfilled the day of initial trenching, then escape ramps will be installed every 300 feet, in the form of short lateral trenches or wooden planks sloping to the surface at an angle of less than 45 degrees, at a ratio one horizontal foot for every one foot of depth.
    - For soil stabilization and revegetation, no-till drilling, hydromulching (avoiding plastic ingredients), and/or hydroseeding will be used rather than erosion control blankets or mats, which pose an entanglement hazard to wildlife. If erosion control blankets or mats cannot be avoided, products that contain no netting or loosely woven natural fiber netting will be used, avoiding any type of plastic netting.
    - When restoring the right-of-way, the District will plant a diverse mix of native species that provide floral resources or allow vegetation to naturally reestablish, unless otherwise requested by landowners.
    - If wildlife are encountered, the animals will be allowed to leave the area safely. State and federally listed species will be handled only by persons with authorization obtained through TPWD.

- A Storm Water Pollution Prevention Plan (SWPPP) will be prepared and implemented to eliminate sediment in stormwater runoff from the construction areas, to include best management practices (BMPs) such as silt fences, hay bales, fiber logs, and berms.

Standard Environmental Conditions

- Consistent with the TWDB Supplemental Construction Contract Conditions (TWDB-0552), the District will abide by the standard emergency condition for the discovery of cultural resources.

- Consistent with the TWDB Supplemental Construction Contract Conditions (TWDB-0552), the District 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.