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MEMORANDUM

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

Clay Schultz Digitally signed by Clay Schultz Date: 2025.06.22 23:21:53 -05'00'

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

Joe Koen Digitally signed by Joe Koen Date: 2025.06.16 11:18:44 -05'00'

FROM: Kylie Beard, Environmental Protection Specialist

Kylie Beard Digitally signed by Kylie Beard Date: 2025.06.12 08:07:41 -05'00'

SUBJECT: Upper Trinity Regional Water District, Denton County, Texas
TWDB SWIFT Project No. 51091
Harpool Regional Water Treatment Plant Expansion, Phase 2
Total Commitment Amount: $162,000,000
Loan No. LB2401839
Loan No. LB2501839
Loan No. LB2601839
Loan No. LB2701839
Loan No. LB2801839

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 Harpool Regional Water Treatment Plant (RWTP) Expansion, Phase 2, project proposed by the Upper Trinity Regional Water District (District) in Denton County, Texas. The District is proposing to use $162,000,000 in financing from the State Water Implementation Fund for Texas (SWIFT) Program for planning, 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.

PROJECT DESCRIPTION

The project components covered by this environmental assessment include the expansion of the existing RWTP as follows:

- Installation of a new chlorine dioxide pretreatment system.
- Replacement of the existing raw water transmission flow control sleeve valve at the joint meter vault with a low head loss valve.

[1] Upper Trinity Regional Water District (April 11, 2025). Environmental Data Form (EDF), Harpool Regional Water Treatment Plant Expansion, Phase 2, Prepared by Plummer Associates. Received by TWDB on November 18, 2024. The EDF is complete with the supplementary materials submitted to the TWDB on April 11, 2025.

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Bryan McMath, Executive Administrator

- Replacement of the existing inlet structure plug valve with a new high head reduction control valve.
- Construction of a new high pressure supply header in the outlet structure.
- Construction of a new flow metering and control assembly at the outlet structure.
- Construction of a new membrane complex building, matching the design aesthetics of the existing complex.
- Construction of a new maintenance building with vehicle servicing bays.
- Replacement of existing recovery return pumps with higher capacity and head units.
- Replacement of existing emergency return pumps with higher capacity and head units.
- Modifications to existing chemical facilities to include more storage or dosing capacity, where needed, and connect the new membrane system.
- Construction of a new 6-million-gallon clearwell.
- Addition of a new finished water pump station with three pumps to the existing finished water pump station to provide redundant service to the south distribution area.
- Installation of a variable frequency drive on an existing finished water pump and modifications to existing electrical building equipment.
- Relocation and refurbishment of the replaced 18-inch joint meter vault raw water sleeve valve to the existing membrane building raw water piping.
- Replacement of an existing 24-inch emergency return yard piping with 36-inch piping.
- Construction of a new 36-inch diurnal pond overflow pipe and outlet structure in the emergency storage lake.
- Replacement of the existing 24-inch overflow structure with a 36-inch structure at the emergency storage lake.
- Installation of a new electrical service connection and medium voltage transformer.
- New electrical switch gear, switchgear, motor control, panels, etc. to power new facilities.
- Construction of new electrical buildings to house equipment.
- Installation of new backup generators.
- Upgrade of existing instrumentation equipment to support new facilities, as needed.
- Install additional finished water pumping and/or piping.

PURPOSE AND NEED

The proposed project will provide process expansion at the RWTP to increase the plant's capacity by 30 million gallons per day (MGD), as well as enhance the plant's redundancy, reliability, and operational flexibility. A phased approach to the design and construction of the improvements is being developed so that improvements can be made to meet the operational priorities of the District.

The District's water system consists of two regional water treatment plants that provide treated water to twenty-five members and customers in its service area. The proposed expansion of the RWTP will improve the treatment processes to increase the rated capacity in incremental phases from 30 MGD to 60 MGD (30 MGD increase). The proposed expansion is required to secure water treatment capacity for the growing population.

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 District submitted notifications to and requests for input from all required parties. 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. 202502147)
- United States Army Corps of Engineers (USACE), Fort Worth District, Regulatory Division, in accordance with Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act of 1899 (Project Number SWF-2024-00467, 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. 52942)
- 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 2024-0137092)

Texas Historical Commission

The THC was given the opportunity to review the project. The THC staff concurred in a letter dated October 28, 2024, that no historic properties, archeological sites, or other

cultural resources would be affected by the project. There are no previously recorded significant sites within the project footprint according to THC Archeological Sites Atlas. The project is not within the protected area surrounding a historic cemetery, structure, or district. (THC Tracking No. 202502147).

United States Army Corps of Engineers

The USACE Fort Worth District Office, Regulatory Division staff were given the opportunity to review the project and aquatic resources delineation report prepared by Plummer and dated December 19, 2024. The USACE staff verified that the project works appeared to be authorized under Nationwide Permit 58 - Utility Lines Activities for Water and Other Substances (NWP 58) and issued a verification letter on April 11, 2025 (USACE Project Number SWF-2024-00467).

Two waterbodies would be impacted at the project area according to the delineation report, an intermittent unnamed tributary to Running Branch that would be crossed by a pipeline, and an upland storage pond within which a second outlet would be constructed. The stream was determined to be a water of the United States (WOTUS) and regulated by the USACE under Section 404 of the Clean Water Act.

A cultural resources report was prepared by AR Consultants, Inc. on behalf of the City on January 30, 2025, to evaluate potential historical, archeological, or cultural resources impacts for the NWP 58. The report concluded that there was very little potential for encountering prehistoric and historic cultural resources within the project site.

A biological report was prepared by Plummer on December 19, 2024, based on a site investigation. The biological report did not anticipate impacts to federally listed species due to project construction but found that the federally proposed threatened and state-listed threatened alligator snapping turtle (*Macrochelys temminckii*) may have the potential to be affected by the proposed project. Potential habitat for the federally proposed endangered tricolored bat (*Perimyotis subflavus*) and bald eagle (*Haliaeetus leucocephalus*) is also present at the project site but project construction is not anticipated to cause significant impacts to forest habitat. The USFWS additionally does not recognize the tricolored bat range to currently extend to the location of the proposed project. The special conditions in this ED provide mitigations to avoid impacts to the alligator snapping turtle and migratory birds.

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 October 25, 2024 (TPWD Project No. 52942). The TPWD staff made recommendations to prevent impacts to migratory birds and species of greatest conservation need (SGCN) that may reside in the area.

In correspondence dated November 4, 2024, Plummer, on behalf of the City, 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 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. 2024-0137092). The USFWS consistency letter dated September 24, 2024, 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 the field survey. Although there are ponds onsite that may offer stopover habitat for the endangered whooping crane (*Grus americana*), the ponds are not shallow enough and likely do not provide the undisturbed wetland and grassland habitat preferred by the whooping crane. There was no designated critical habitat within the project area.

Local Floodplain Administrator

The project appears to be partially within the 100-year and 500-year floodplain, as designated by the Federal Emergency Management Agency (FEMA). Projects involving construction in a Special Flood Hazard Area (SFHA), including replacement or borings, require a floodplain development permit from the local floodplain administrator.

This environmental finding is conditioned to require a floodplain development permit from Denton County prior to clearing or construction activities within any SFHA 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

- 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 United States Army Corps of Engineers Nationwide Permit 58 for Utility Line Activities for Water and Other Substances (USACE No. SWF-2024-00467).
- Consistent with the Flood Insurance Reform Act of 2004, federal Executive Order 11988, 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.
- As per an agreement with the Texas Parks and Wildlife Department (TPWD), Ecological & Environmental Planning Program (TPWD Project No. 52942), to ensure compliance with Texas Parks and Wildlife Code, Chapters 1, 12, 64, 67, and 68, the Endangered Species Act of 1973, as amended, the Migratory Bird Treaty Act, and applicable federal regulations pertaining to protected species including the alligator snapping turtle (*Macrochelys temminckii*), the following measures are recommended to be implemented:
    - Vegetation clearing should be excluded during the general bird nesting, March 15 through September 15, to avoid adverse impacts to breeding birds. If vegetation clearing during this time is unavoidable, the area proposed for disturbance should be surveyed by a qualified biologist to identify occupied nests, not more than five days prior to clearing activities. If occupied nests are observed during surveys, a vegetation buffer area of no less than 100 feet in diameter will remain around the nest 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 USFWS office. State and federal regulations as currently interpreted do not permit incidental take.
    - The length of trenches left open at any given time during construction should be minimized. Trenching and backfilling activities should be kept close together in time. Trenches and excavation areas should 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 should 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.
    - Contractors and construction crews should be provided with informational materials identifying potential protected species that may occur in the project area and instructing them on how to avoid impacts to wildlife that are encountered: If wildlife are encountered, the animals should be allowed to

leave the area safely. Wildlife in danger from project activities that will not readily leave the site can be translocated to a nearby area with similar habitat. Any translocations of reptiles will occur within 100-200 yards from the initial encounter location. State-listed species will be handled only by persons with authorization obtained through the TPWD.

- For soil stabilization and revegetation, no-till drilling, hydromulching (avoiding plastic ingredients), and/or hydroseeding should 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 should be used, avoiding any type of plastic netting.
- The project should be designed to utilize the minimum amount of nighttime light needed for safety and security for lighted structures at the water treatment plant, elevated storage tank site, and pump stations. Lights should be focused downward with cutoff luminaries to avoid light emitting above the horizontal. During construction, lighting should only be illuminated when needed, should only be as bright as needed, should be fully shielded, and will minimize blue light emissions.
- If the alligator snapping turtle (*Macrochelys temminckii*) or Monarch butterfly (*Danaus plexippus*) become federally listed prior to vegetation clearing and/or construction, the District will conduct additional coordination with the United States Fish and Wildlife Service to ensure compliance with the Endangered Species Act.

<u>Standard Environmental Conditions</u>

- Consistent with the TWDB Supplemental Construction Contract Conditions (TWDB-0552), the Upper Trinity Regional Water District (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.