

ENVIRONMENTAL DETERMINATION

MEMORANDUM

TO: File

FROM: Jessica Zuba, Director, Regional Water Planning and Development

DATE: November 30, 2015

SUBJECT: Tarrant Regional Water District, Tarrant, Cleburne, Ellis, Navarro, Henderson, Anderson, Cherokee Counties
Environmental Determination
Integrated Pipeline Project (excluding Section 9, 19-1, 19-2, and Lake Palestine Pump Station and Intake (LP-1)
State Water Implementation Fund for Texas, TWDB Project No. 51024
TWDB Loan Commitment: \$440,000,000 (Loan Nos. L15031 and L15035)

The attached memorandum contains the Texas Water Development Board's (TWDB) staff's views regarding the environmental soundness of components of the Integrated Pipeline Project. This project will utilize acquisition, design, and construction funds from the State Water Infrastructure Fund (SWIFT) loan. The TWDB committed this loan on July 23, 2015, in the amount of \$440,000,000. The anticipated closing date is December 9, 2015.

This environmental determination includes the following components, as shown on the attached map, except where noted:

- IPL, Section 9 (Acquisition Funding Only). This section is not included in this environmental determination.
- IPL, Section 10 and Interconnect
- IPL, Section 11
- IPL, Section 12
- IPL, Section 13. This section is included in this environmental determination, but is not being funded by this loan.
- IPL, Section 14
- IPL, Sections 15-1 and 15-2. These sections are included in this environmental determination, but are not being funded by this loan.
- IPL, Section 16
- IPL, Section 17
- IPL, Section 18
- IPL, Sections 19-1 and 19-2 (Acquisition Funding Only). This section is not included in this environmental determination.
- JCC1 – Joint Cedar Creek Pump Station and Intake
- JB4 - BPS #3 – Joint Booster Pump Station and Bypass
- JB3 - Joint Booster Pump Station
- JB2 - Joint Booster Pump Station
- JRC1 – Richmond Chambers Reservoir Intake Pump Station
- LP1 – Lake Palestine Intake and Pump Station (Acquisition Funding Only). This project component is not included in this environmental determination.

Based on TWDB staff's environmental review, I have determined that no significant adverse environmental impacts should result from the proposed project discussed in the attached Environmental Determination. As required by 31 Texas Administrative Code §363.14, full consideration has been given to the views and comments of the requisite regulatory agencies and affected persons. Based on this review, the following conditions have been developed in order to ensure that this TWDB funded project is environmentally sound and will not have any adverse impacts on the quality of the human environment:

- Terms and conditions of a U.S. Army Corps of Engineers Nationwide Permit 12 for Utility Line Activities (USACE No. SWF-2011-00074);
- Prior to construction within any given floodplain, a floodplain permit or waiver must be obtained from the local Floodplain Administrator (National Flood Insurance Program);
- Standard emergency condition for the discovery of cultural resources; and,
- Standard emergency condition for the discovery of threatened and endangered species.

With the addition of these conditions, the specified project elements above are environmentally sound and design funds may be released once all other requirements are satisfied.

Enclosure

TO: Jessica Zuba, Director, Regional Water Planning and Development

THROUGH: Luis Farias, Manager, Team 3 – Northeast (Regions C and D)

FROM: Kathy Calnan, Environmental Reviewer

DATE: November 30, 2015

SUBJECT: Environmental Summary
Tarrant Regional Water District, Tarrant, Cleburne, Ellis, Navarro, Henderson,
Anderson, Cherokee Counties
Environmental Determination
Integrated Pipeline Project (excluding Section 9, 19-1, 19-2, and Lake Palestine
Pump Station and Intake (LP-1)
State Water Implementation Fund for Texas
TWDB Project No. 51024
TWDB Loan Commitment: \$440,000,000 (Loan Nos. L15031 and L15035)

Pursuant to the environmental assessment requirements of 31 Texas Administrative Code §363.14 of the Texas Water Development Board (TWDB) rules, TWDB staff has conducted an environmental review of the Integrated Pipeline (IPL) Project proposed by the Tarrant Regional Water District (District) and Dallas Water Utilities (DWU). This project will utilize acquisition, design, and construction funds from the State Water Infrastructure Fund (SWIFT) loan. The TWDB committed this loan on July 23, 2015, in the amount of \$440,000,000. The anticipated closing date is December 9, 2015. This environmental assessment is based primarily on information in the Environmental Information Document (EID)¹ provided by the District.

Purpose and Need

The District and DWU, regional providers of drinking water, face similar water demand issues. Although the current water availability meets demand, this demand will essentially double by the year 2060, leaving a projected shortage. Using a regional approach, the District and DWU have developed an integrated project to address future customer demands.

The project is known as the Integrated Pipeline Project (IPL) and has components of transmission lines, intakes with associated pump stations, booster pump stations, wetlands construction, and reservoir construction.

Project Description

The District and the DWU have partnered to finance, plan, design, construct, and operate the Integrated Pipeline (IPL) Project. The IPL Project is an integrated water delivery transmission system connecting Lake Palestine to Lake Benbrook with additional connections to Cedar Creek and Richland-Chambers Reservoirs and interconnections to the District's existing pipelines that creates flexibility in delivery as well as quick response to fluctuating customer water demands.

¹ Tarrant Regional Water District (May 2013) *Environmental Information Document, Tarrant Regional Water District Integrated Pipeline Project*, (Prepared for the Tarrant Regional Water District by Freese and Nichols, Inc., Fort Worth, Texas).

This environmental determination includes the following components, as shown on the attached map, except where noted:

- IPL, Section 9 (Acquisition Funding Only). This section is not included in this environmental determination.
- IPL, Section 10 and Interconnect
- IPL, Section 11
- IPL, Section 12
- IPL, Section 13. This section is included in this environmental determination, but is not being funded by this loan.
- IPL, Section 14
- IPL, Sections 15-1 and 15-2. These sections are included in this environmental determination, but are not being funded by this loan.
- IPL, Section 16
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- IPL, Section 18
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- JCC1 – Joint Cedar Creek Pump Station and Intake
- JB4 - BPS #3 – Joint Booster Pump Station and Bypass
- JB3 - Joint Booster Pump Station
- JB2 - Joint Booster Pump Station
- JRC1 – Richmond Chambers Reservoir Intake Pump Station
- LP1 – Lake Palestine Intake and Pump Station (Acquisition Funding Only). This project component is not included in this environmental determination.

This includes Sections 10 through 18 of the IPL, but does not include future planned Section 9 (to Benbrook Lake) and Sections 19-1 and 19-2 from Cedar Creek Reservoir and Lake Palestine. The excluded sections are still in planning stage, and have not yet been reviewed by or have permits from the U.S. Army Corps of Engineers (USACE), the Texas Historical Commission (THC), and the Texas Parks and Wildlife Department (TPWD). The current loan is only for land/easement acquisition costs for these segments. Environmental review of those components of the project will be handled separately.

Reviews by Regulatory Agencies and Resulting Conditions

The District coordinated with federal and state regulatory agencies as described in the following paragraphs.

Texas Parks and Wildlife Department and the U.S. Fish and Wildlife Service

The TPWD, Wildlife Division, Wildlife Habitat Assessment Program reviewed the proposed project and provided a response dated October 20, 2015 (TPWD Project No. 35421), with a variety of recommendations for the proposed project regarding rare and protected species, vegetation, invasive species, surface water, wetlands, and other aquatic resources. The TPWD received a written response from the District dated November 6, 2015 providing responses to the TPWD's initial comments. A summary is provided below.

- Protected and Rare Species: No eagle nesting sites or rookeries (including heronries) were identified during the pedestrian or aerial surveys by qualified biologists. The District will consider appropriate buffer zones if any are encountered. Construction

activities will comply with the Migratory Bird Treaty Act. Contractors will be given information packets to include photographs for identification and avoidance procedures for the State threatened timber rattlesnake (*Crotalus horridus*) and Texas horned lizard (*Phrynosoma cornutum*). The presence of a biological monitor during all clearing and construction activities is not practicable. If District staff are on site or notified when protected species are observed, TPWD will be notified.

- Streams and Aquatic Resources: Many streams will be avoided by boring underground. All stream impacts will be temporary by restoring preconstruction contours and maintaining existing flows. Appropriate sediment and erosion controls will be in place as required by Sections 401 and 402 of the Clean Water Act. The District considered potential impacts to aquatic resources including freshwater mussels in the planning phase of the project, and selected alignments and crossing methodology in order to avoid or minimize potential impacts. The District will assess the need for coordination with the TPWD Kills and Spills Team for each stream crossing.
- Vegetation Clearing / Soil Stabilization: Best Management Practices (BMPs) such as straw or natural fiber mulch or net free erosion control blankets in place of plastic mesh when appropriate to avoid impacts to wildlife. Disturbed areas will be revegetated with native species appropriate to the area except where requested otherwise by the landowner.
- Trenching: Trenching and backfilling will be done in a phased approach to minimize the amount of time that trenches remain open, and minimize potential impacts to wildlife.

Because the EID concluded that the proposed project would have no adverse effects on any federally listed threatened or endangered species, a review by the United States Fish and Wildlife Service (USFWS) was not required.

U.S Army Corps of Engineers, Fort Worth District

The District provided the EID to the USACE as part of the permit application. In a letter dated September 17, 2013 (Project Number SWF-2011-00074) stating that the project will involve activities subject to the requirements of Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act of 1866. The USACE determined that the project would be authorized under Nationwide Permit 12 for Utility Line Activities, provided that the District complied with all of the terms and conditions of the general permit in addition to the special conditions listed below:

1. The permittee understands and agrees that, if future operations by the United States require the removal, relocation, or other alteration, of the structure or work herein authorized, or if, in the opinion of the Secretary of the Army or his authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters, the permittee will be required, upon due notice from the Corps of Engineers, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the United States. No claim shall be made against the United States on account of any such removal or alteration.
2. The permittee shall implement and abide by the mitigation plan included in the "IPL Project- Preconstruction Notification," prepared by Freese and Nichols, Inc., dated May 2013. 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.

3. The permittee shall implement and abide by invasive species controls included in the "Integrated Pipeline Project, IPL, Management of Invasive Species Study, Final Report," prepared by CH2MHill, dated August 2013.
4. The permittee shall not initiate any construction for this undertaking that will affect any identified historic property eligible, or potentially eligible for listing, in the National Register of Historic Places (NRHP) until the USACE has verified the requirements of 33 CFR 325 and 36 CFR 800. After assessment by the USACE, additional work to protect, avoid, or mitigate impacts to historic properties may be necessary. If a previously unknown cultural resource site is encountered during work authorized by this permit, the permittee shall immediately contact the USACE and avoid further impact to the site until assessment, and the requirements for any additional work, are determined.

The USACE verification for the construction activity under this nationwide permit is valid until March 18, 2017, unless prior to that date the nationwide permit is suspended, revoked, or modified such that the activity would no longer comply with the terms and conditions of the nationwide permit on a regional or national basis. Activities that have commenced, or are under contract to commence, in reliance on a nationwide permit will remain authorized provided the activity is completed within 12 months of the date of the nationwide permit's expiration, modification, or revocation, unless discretionary authority has been exercised on a case-by-case basis to modify, suspend, or revoke the authorization in accordance with 33 CFR 330.4(e) and 33 CFR 330.5(c) or (d).

To ensure compliance with Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act of 1866, the loan is conditioned to read that the project must comply with all terms and conditions of the USACE permit (Project Number SWF-2011-00074).

Texas Historical Commission

Ama Terra Environmental consultants conducted a survey under Antiquities Permit #5826 of the proposed project area, including Segments 10 (at KBR facility) to the intake structure on Cedar Creek Reservoir (JCC1), including Segment 16 to the reservoir Intake Pump Station (JRC1) on the Richland Chambers Reservoir. The survey report² identified seven potential National Registry of Historic Places (NRHP) eligible cultural resource properties. All seven sites were avoided by modifying the proposed pipeline alignment or tunneling through sterile soil below cultural deposits. In a letter dated January 31, 2014, the THC stated that receipt of the report completed the permit requirements. The permit includes Segments 10 through 18, but does not include future planned Segment 9 (to Benbrook Lake) and Segments 19-1 and 19-2 From Cedar Creek Reservoir and Lake Palestine.

The loan is conditioned to read that if archeological sites are discovered during construction, work will cease immediately in that area and the District will notify the THC and the TWDB of the discovery. The THC and the TWDB will then proceed in accordance with the regulations of the Advisory Council on Historic Preservation (36 CFR Part 800) prior to taking any action which would affect the cultural resources. In addition, as per of the USACE permit, the USACE Regulatory Branch Archeologist will also be contacted.

² Ama Terra Environmental, Inc. 2013. *Cultural Resource Survey of the Proposed Tarrant Regional Water District / City of Dallas Integrated Pipeline Project in Tarrant, Johnson, Ellis, Navarro, Henderson, and Anderson Counties, and Expansion of the Kennedale Balancing Reservoir in Tarrant County, Texas*. Prepared by Ama Terra Environmental for the Tarrant Regional Water District and the City of Dallas under Texas Antiquities Permit #5826.

Local Floodplain Administrator, National Flood Insurance Program

The pipeline will cross several floodplains. Coordination with all local floodplain administrators has been completed or is in progress. To ensure compliance with the requirements of the Federal Emergency Management Agency and the National Flood Insurance Program, the loan is conditioned to read that prior to construction within any given floodplain, a floodplain permit or waiver must be obtained from the local Floodplain Administrator.

Conditions and Recommendation

Full consideration has been given to the views and comments of the requisite regulatory agencies and affected persons. Based on a detailed environmental review consistent with 31 TAC §363.14, the following conditions have been developed in order to ensure that this TWDB funded project is environmentally sound and will not have any adverse impacts on the quality of the human environment:

- Compliance with all of the terms and conditions of the U.S. Army Corps of Engineers Nationwide Permit 12 for Utility Line Activities (USACE Project No. SWF-2011-00074);
- Prior to construction within any given floodplain, a floodplain permit or waiver must be obtained from the local Floodplain Administrator (National Flood Insurance Program);
- Standard emergency condition for the discovery of cultural resources; and,
- Standard emergency condition for the discovery of threatened and endangered species.

With the addition of these conditions, I recommend that the Executive Administrator find the specified project elements above to be environmentally sound and that design funds be released once other requirements are satisfied.

