

Environmental Determination

MEMORANDUM

TO: File

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

DATE: April 26, 2016

SUBJECT: City of Iraan, Pecos County, Texas
Environmental Determination
Wastewater Treatment Plant and Water System Improvement Project
Texas Water Development Fund, Project Number 21741 (L1000301)

The attached memorandum contains the staff's views regarding the environmental soundness of the wastewater treatment plant and water system improvement project proposed by the City of Iraan (City), Pecos County, located approximately 94 miles southwest of San Angelo, Texas. This project is funded by a loan (L1000301) from the Texas Water Development Fund for planning, design, and construction. The Texas Water Development Board (TWDB) committed funds for this project on July 10, 2014, in the amount of \$2,375,000. The City closed the loan on December 18, 2014, in the full amount of the commitment.

Currently, the City provides water and wastewater services for most of the community of 1,238 persons. The population is projected to grow to 1,421 by 2030, an estimated 14.8% increase. To meet the anticipated demand for potable water, the City plans to construct approximately 1,900 feet of new 8-inch and 6-inch water distribution lines and install fire hydrants and valves to extend service along Underwood Street at the eastern edge of the City. This area is experiencing significant growth and further development is expected.

The City is also planning improvements in its sanitary sewer system. Since 2012, the existing wastewater treatment plant (WWTP) has routinely operated at more than 98% of its permitted capacity, 90,000 gallons per day average flow. The WWTP, built in 1953, is inefficient, and although the City has maintained effluent water quality within permitted limits, parts of the plant have deteriorated and must be replaced. The City disposes of its treated effluent by flood irrigating a 25-acre privately owned tract with no public access. The current, permitted application rate does not exceed 5 acre-feet per year per acre irrigated.

After consideration of alternatives, the City proposes to increase the capacity of its wastewater system and improve treatment by constructing a new WWTP and associated effluent irrigation system. The new WWTP would be constructed at the site of the existing plant and would include a new facultative lagoon and storage pond with a capacity of 175,000-gallons per day. The City also proposes to develop a new 49-acre irrigation area on City-owned property adjacent to the WWTP, which will require amendment of the City's existing wastewater effluent disposal permit from the Texas

Commission on Environmental Quality.

The City assessed the potential environmental impact of the proposed project and coordinated with regulatory agencies that have administrative jurisdiction over conditions in the project area. These agencies determined permitting requirements and suggested measures to avoid, reduce, or mitigate environmental effects. The TWDB staff reviewed the resulting information and prepared recommendations to implement compliance with applicable state and federal environmental regulations and policies of the TWDB.

Based on the 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. The following conditions will ensure that this TWDB funded project is environmentally sound and will not have any adverse impacts on the quality of the human environment or protected natural resources.

- The City must avoid construction or other disturbance of the southeastern part of the proposed project area in proximity to archeological site 41PC769. If, in the future, additional construction within or near site 41PC769 is anticipated, the City must notify the Texas Historical Commission and undertake additional investigations in that area as needed.
- Standard emergency condition for the discovery of cultural resources.
- Standard emergency condition for the discovery of threatened or endangered species.

Enclosure

JZ:SCC:

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

THROUGH: Lee Huntoon, Manager, Team 1 – Panhandle/West (Regions A/E/F/O)

FROM: S. Christopher Caran, P.G., Environmental Reviewer, Team 1 – Panhandle/West (Regions A/E/F/O)

DATE: April 26, 2016

SUBJECT: City of Iraan, Pecos County, Texas
Environmental Determination
Wastewater Treatment Plant and Water System Improvement Project
Texas Water Development Fund, Project Number 21741 (L1000301)

Pursuant to the environmental assessment requirements of 31 Texas Administrative Code (TAC) §363.14 of the Texas Water Development Board (TWDB) rules, I have conducted a review of the Wastewater Treatment Plant and Water System Improvement Project proposed by the City of Iraan (City), Pecos County, Texas, located approximately 94 miles southwest of San Angelo, Texas. This project will utilize funds from loan L1000301 from the Texas Water Development Fund (DFund) in the amount of \$2,375,000. The TWDB committed these funds on July 10, 2014, and the City closed the loan on December 18, 2014.

Purpose and Need¹

The proposed project is intended to address deficiencies in the City's water and wastewater utilities. Currently, the City provides services for most of this community of 1,238 persons. The population is projected to grow to 1,421 by 2030, an estimated 14.8% increase. Parts of the City have undergone significant growth in the past few years and additional water infrastructure is needed to meet current and anticipated demand.

The City is also planning improvements in its sanitary sewer system. Since 2012, the existing wastewater treatment plant (WWTP) has routinely operated at more than 98% of its permitted capacity, 90,000 gallons per day average flow. The WWTP, built in 1953, is inefficient, and although the City has maintained effluent water quality within permitted limits, parts of the plant have deteriorated and must be replaced. The City disposes of its treated effluent by flood irrigating a 25-acre privately owned tract with no public access. The current, permitted application rate does not exceed 5 acre-feet per year per acre irrigated.

Project Description

To meet projected demand for potable water, the City plans to install:

- Approximately 1,900 feet of new 8-inch and 6-inch water distribution pipelines;

¹ City of Iraan, Texas (November 16, 2015). *Environmental Data Form* (Prepared by Parkhill, Smith & Cooper, Lubbock, Texas) and subsequent information received by the TWDB on March 14, 2016.

- Fire hydrants; and
- Valves.

With these improvements, the City would extend water service along Underwood Street at the eastern edge of the City, an area where near-term development is expected.

The City also proposes to increase the capacity of its wastewater system and improve treatment by constructing a new WWTP and associated effluent irrigation system including:

- Facultative lagoon and storage pond with a capacity of 175,000-gallons per day; and
- 49-acre effluent irrigation area.

The new WWTP would be constructed at the site of the existing plant and on City-owned property adjacent to the plant.

Public Participation

The general public has participated in the planning process for this project primarily through its elected representatives. All planning documents are available for public inspection and comment upon request.

Reviews by Regulatory Agencies and Resulting Conditions

On behalf of the City, Cox/McLain Environmental Consulting coordinated with the following federal, state, and local regulatory agencies: United States Army Corps of Engineers, Albuquerque District, Las Cruces, New Mexico; United States Fish and Wildlife, Austin Ecological Services Field Office, Austin; Texas Parks and Wildlife Department, Wildlife Division, Wildlife Habitat Assessment Program, Austin; and Texas Historical Commission, Austin, initially on November 20, 2015. A summary of the correspondence is provided below.

United States Army Corps of Engineers (USACE)

The USACE provided a response letter dated December 8, 2015 (Action Number SPA-2015-00429-LCO), stating that "...the site does not contain waters of the United States...This approved JD [Jurisdictional Determination] is valid for five years unless new information warrants revision of the determination before the expiration date."

United States Fish and Wildlife Service (USFWS)

The USFWS did not respond to the City's initial consultation request. In March, 2016, the City again contacted the USFWS. On March 9, 2016, the USFWS provided general guidance for avoiding adverse effects on endangered, threatened, and other protected species. The letter included no project-specific comments or recommendations.

The DFund loan is conditioned that if threatened, endangered, or otherwise protected animals, plants, or their habitats are discovered during construction, work must

immediately cease in that area and the City must notify the USFWS and the TWDB of the discovery. The USFWS and the TWDB would then proceed in accordance with the applicable state and federal regulations prior to taking any action which would affect the natural resources.

Texas Parks and Wildlife Department (TPWD)

The TPWD provided a response dated January 14, 2015, designating the proposed project “TPWD ERCS-12193, #35867,” stating that “the Wildlife Habitat Assessment Program does not anticipate significant adverse impacts to rare, threatened, or endangered species, or other fish and wildlife resources.”

The DFUND loan is conditioned that if threatened or endangered species are discovered during construction, work must immediately cease in that area and the City must notify the TPWD and the TWDB of the discovery. The TPWD and the TWDB would then proceed in accordance with applicable state and federal regulations prior to taking any action that would affect the natural resources.

Texas Historical Commission (THC)

After reviewing the proposed project’s potential to affect cultural resources, the THC determined that an archeological survey of the project area was required. The survey was completed and a draft report was submitted to the THC for review on November 13, 2015. In the report, the City’s environmental consultant concluded that the proposed project area, including three previously reported archeological sites, had been disturbed by historical and modern land use. One site, 41PC769, was determined to retain at least some integrity and to extend onto private property outside of the survey area. Additional investigation would be required to assess the potential significance of this site. Subsequently, the City informed the consultant that the proposed project would not affect the site or the southeastern part of the project area where the site is located. The consultant then recommended that the proposed construction should be allowed to proceed, but that the site and southeastern part of the project area should be avoided. If, in the future, additional construction within or near site 41PC769 is anticipated, the THC would be informed and additional investigation would be undertaken as needed. On December 21, 2015, the THC accepted the consultant’s report and concurred with these recommendations.

The DFUND loan is conditioned that if cultural resources are discovered during construction, work must immediately cease in that area and the City must notify the THC and the TWDB of the discovery. The THC and the TWDB would 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.

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

Environmental Determination
City of Iraan (21741)
Wastewater Treatment Plant and Water System Improvement Project
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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 or protected natural resources.

- The City must avoid construction or other disturbance of the southeastern part of the proposed project area in proximity to archeological site 41PC769. If, in the future, additional construction within or near site 41PC769 is anticipated, the City must notify the Texas Historical Commission and undertake additional investigations in that area as needed.
- Standard emergency condition for the discovery of cultural resources.
- Standard emergency condition for the discovery of threatened or endangered species.

With these conditions, I recommend that the Executive Administrator find the specified project elements above to be environmentally sound.

CS: SCC:



New Facultative Lagoon

Land Application Area

New Holding Pond

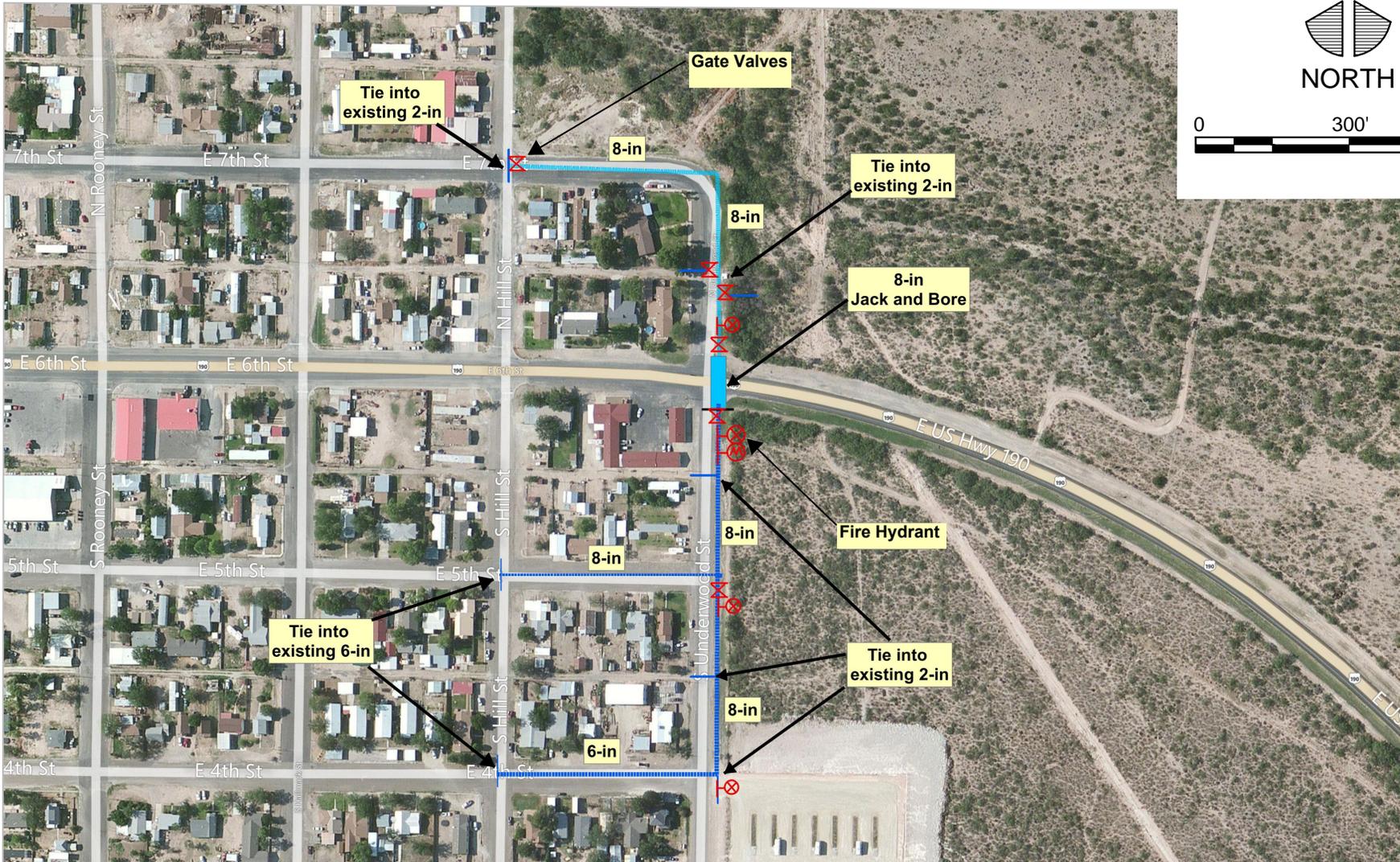
CITY OF IRAAN, TEXAS
PROJECT IMPROVEMENTS
TWDB PROJECT # 21741



PARKHILL SMITH & COOPER

City of Iraan New WWTP

Issue: TWDB Date: 04/18/16
Project No: 1970.13 Sheet: 1 OF 2



CITY OF IRAAN, TEXAS
 PROJECT IMPROVEMENTS
 TWDB PROJECT # 21741



PARKHILL SMITH & COOPER

City of Iraan
 Waterline Improvements

Issue: TWDB
 Project No: 1970.13

Date: 04/18/16
 Sheet: 2 OF 2