MEMORANDUM

TO: File
FROM: T. Clay Schultz, Ph.D., Director, Regional Water Project Development
DATE: June 2, 2022
RE: City of Brownsville, Cameron County, Texas
TWDB FIF Project No. 40158
SCADA Control Systems Project
Total Financing Amount: $4,000,000
(L1001335 and G1001336)

The attached Environmental Determination (ED) contains the Texas Water Development Board (TWDB) staff's views regarding the environmental soundness of the proposed SCADA Control Systems Project proposed by the City of Brownsville (City), Cameron County, Texas.

The City is proposing to use $4,000,000 in financing from the Flood Infrastructure Fund Program to construct 21 Supervisory Control and Data Acquisition monitoring and control stations located throughout the City's resacas and drainage system to assist the City with stream flow, water quality, and rainfall data collection. The proposed improvements will increase storm water basin capacities and extend the effectiveness of existing storm water detention to help reduce the effects of flooding during smaller storm events.

An environmental review of the proposed project has been completed consistent with the guidelines provided in 31 Texas Administrative Code (TAC) § 363.13 and 363.14. This environmental review is documented by the enclosed ED, which contains mitigative environmental conditions that will be applied to the project to avoid significant adverse impact on waters of the United States, including wetlands, floodplains, cultural or historical resources, threatened or endangered species, and protected migratory bird species.

Based on a detailed environmental review of the planning information, the Environmental Data Form dated April 20, 2022, and other documentation, the proposed project meets the requirements of 31 TAC § 363.14 with the following conditions:

Our Mission
Leading the state’s efforts in ensuring a secure water future for Texas and its citizens

Board Members
Brooke T. Paup, Chairwoman | Kathleen Jackson, Board Member
Jeff Walker, Executive Administrator
• To ensure compliance with the Migratory Bird Treaty Act (USFWS Tracking No. FWS/R2/ES/02ETTX00-2021-I-1165), migratory bird surveys will be conducted prior to any work commencing. If mechanized clearing of habitat occurs between March 15 and September 15, surveys should look for birds, nests, and eggs. If a nest is found, a vegetation buffer of at least 100 feet in diameter should remain around songbird nests (other species, such as water birds and raptors, require a buffer of at least 500 feet) until young have fledged or the nest is abandoned.

• To comply with the 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 and local floodplain development ordinances, proponents of construction projects in special flood hazard areas must coordinate in advance with the local floodplain administrator and obtain a floodplain development permit prior to design approval.

• Standard emergency condition for the discovery of cultural resources
• Standard emergency condition for the discovery of threatened and endangered species

With the addition of these requirements, design funds may be released once all other requirements are satisfied.

Enclosure
ENVIRONMENTAL DETERMINATION

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

THROUGH: Mireya Loewe, Manager, Team 6 – (Regions M and N)

FROM: Lauren Dill, Natural Resource Specialist (Environmental Reviewer)

DATE: June 2, 2022

SUBJECT: City of Brownsville, Cameron County, Texas
TWDB FIF Project No. 40158
SCADA Control Systems Project
Total Financing Amount: $4,000,000
(L1001335 and G1001336)

Pursuant to the environmental assessment requirements of 31 Texas Administrative Code (TAC) § 363.14, the Texas Water Development Board (TWDB) staff has conducted a review of the SCADA Control Systems Project proposed by the City of Brownsville (City), Cameron County, Texas. The City is proposing to use $4,000,000 in financing from the Flood Infrastructure Fund Program for planning, design, and construction of the proposed project. The Environmental Determination completed for the proposed project is based primarily on the Environmental Data Form (EDF) dated April 20, 2022, and other available resources.

PROJECT DESCRIPTION

The proposed project will install 21 Supervisory Control and Data Acquisition (SCADA) monitoring and control stations throughout the City’s resacas and drainage system to assist the City with stream flow, water quality, and rainfall data collection. The proposed project includes the construction of weirs, gates, and SCADA controls and data collection systems at 13 detention ponds and 8 resacas within the Cameron County Drainage District No. 1 (CCDD1) and City areas of responsibility.

1 City of Brownsville (April 2022). Environmental Data Form: SCADA and Other Improvements to Resacas, Ponds and Ditches (Prepared by Halff Associates, Inc.). Received by the TWDB on April 20, 2022. The EDF is complete with the supplementary materials submitted to the TWDB on May 11, 2022.
The detention pond weir and SCADA water level control work is proposed for the following locations: (1) El Valle pond weir; (2) Meadow Brooke weir; (3) Kohls and Home Depot weir; (4) Hidden Acres weir; (5) Santander North weir; (6) Fairfields weir; (7) Santander South weir; (8) Paredes Line Road weir; (9) Frankfurt weir; (10) Ballenger pond weir; (11) Sunrise weir; (12) Moose Lake weir; and (13) Cameron Park weir. The resaca SCADA water level control and data collection work is proposed for the following areas: (1) CCDD1 and Indiana; (2) Resaca del Rancho Viejo and Old Port Isabel; (3) Resaca de la Guerra and Eagle Drive; (4) North Main Drain at Impala; (5) North Main Drain and Oklahoma; (6) Old Main Drain No. 2 and Boca Chica; (7) Resaca del Rancho Viejo and Rustic Manor; and (8) North Main Drain tributary at Dockberry. All SCADA data collection system components, except for the water flow and quality data loggers, will be installed outside the water body. The proposed resaca data collection stations will be installed on street/resaca culvert structures to provide stream flow, water quality, and rainfall data. The proposed detention pond improvements will include the construction of earthen side-weir control structures with concrete riprap with automated overflow controls for small storm events. Additional SCADA data collection stations will be installed at the detention pond weir structures to provide the City with stream flow, water quality, and rainfall data. The proposed project is not intended to change current drainage patterns by conveying waters to or from another entity. The proposed improvements will be conducted within easements and public rights-of-way owned and maintained by the City or CCDD1.

PURPOSE AND NEED

The City currently does not have the means to control water levels within its stormwater conveyance system and does not have the capability to measure rainfall data or floodwater levels during rain events. Most detention ponds are constructed as open excavated areas with no flow control features. Installation of SCADA monitoring and control stations throughout the City’s resacas and drainage system are needed to assist the City with storm water controls and data collection. The monitoring system is needed to provide an automatic emergency messaging system to alert the public of potential flooding. The improvements will increase stormwater basin capacities and extend the effectiveness of existing stormwater detention to help reduce the effects of flooding during smaller storm events.

PUBLIC PARTICIPATION

The proposed 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 proposed project does not involve any known permitting, socioeconomic impacts, or environmental, historical, or cultural resources issues that may affect the evaluation of project alternatives or implementation of the proposed project, such as rate increases, displacement of persons, disproportionate effect on minorities or those living beneath the poverty line, potential impacts to known cultural resources, potential impacts to waters of the United States, or to protected species or similar public concerns. Therefore, no public meeting was required.

AGENCY COORDINATION

This environmental review included coordination with various state and federal regulatory agencies, local authorities, and other stakeholders and interested parties regarding the proposed 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, State Historic Preservation Officer, in accordance with the Antiquities Code of Texas (THC Tracking No. 202105627)
- United States Army Corps of Engineers, Regulatory Branch, Galveston District, in accordance with Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act of 1899 (Project Number SWG-2021-00100)
- Texas Parks and Wildlife Department, Wildlife Habitat Assessment Program, 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 Review No. 45987)
- United States Fish and Wildlife Service, Texas Coastal Ecological Services Field Office, in accordance with the Endangered Species Act of 1973, as amended, and statutes affecting other federally protected species (USFWS Reference No. FWS/R2/ES/02ETTX00-2021-l-1165)
- Texas General Land Office, pursuant to the Texas Coastal Management Program (Texas CMP No. 21-1206-F5)
- National Oceanic and Atmospheric Administration, National Marine Fisheries Service Habitat Conservation Division, pursuant to the provisions of the Magnuson-Stevens Fishery Conservation and Management Act

CONDITIONS AND RECOMMENDATIONS

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

The proposed project must comply with the following environmental conditions:

- To ensure compliance with the Migratory Bird Treaty Act (USFWS Tracking No. FWS/R2/ES/02ETTX00-2021-I-1165), migratory bird surveys will be conducted prior to any work commencing. If mechanized clearing of habitat occurs between March 15 and September 15, surveys should look for birds, nests, and eggs. If a nest is found, a vegetation buffer of at least 100 feet in diameter should remain around songbird nests (other species, such as water birds and raptors, require a buffer of at least 500 feet) until young have fledged or the nest is abandoned.

- To comply with the 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 and local floodplain development ordinances, proponents of construction projects in special flood hazard areas must coordinate in advance with the local floodplain administrator and obtain a floodplain development permit prior to design approval.

- Standard emergency condition for the discovery of cultural resources
- Standard emergency condition for the discovery of threatened and endangered species

Therefore, it is recommended that an Environmental Determination be issued.
TWDB FIF
SCADA CONTROL SYSTEMS PROJECT

LEGEND

WEIR AND SCADA
SCADA
MAP IS BASED ON THE FOLLOWING FEMA FIRMETTE PANEL NO. (EFFECTIVE FEBRUARY 16, 2018):

48061C0585F
48061C0590F
48061C0580F
48061C0560F
48061C0595F

RESACA DE RANCHO VIEJO & OLD PORT ISABEL ROAD

CAMERON PARK POND WEIR
MEADOW BROOKE WEIR

HIDDEN ACRES WEIR

CCDD1 & N. INDIANA AVE

FAIRFIELDS POND WEIR

NORTH MAIN DRAIN & OKLAHOMA

OLD MAIN DRAIN #2 & BOCA CHICA

RESACA DE LA GUERRA & EAGLE DRIVE

NORTH MAIN DRAIN & IMPALA DRIVE

NORTH MAIN DRAIN TRIBUTARY & DOCKBERRY ROAD

LEGEND

SPECIAL FLOOD HAZARD AREAS (SFHA) SUBJECT TO
OVERFLOW OF THE 1% ANNUAL OCCURRENCE FLOOD

The 1% annual chance floodplain (shown in orange) is the flood elevation. It is the elevation to which the flood's inundation will extend in any given year. This is the minimum flood elevation in Special Flood Hazard Areas (SFHA). The special flood hazard areas are indicated on the map in orange.

PROPOSED SFHA

These areas are proposed to be included in the SFHA. The proposed areas are based on new or updated data that indicates a need for additional floodplain management. The proposed SFHA will be considered in the SFHA revision process.

ROOF RACKS

Roof racks are not themselves considered to be floodproofing. However, they can be used as part of an overall flood protection plan. Roof racks that are approved by the local building official and meet the requirements for floodproofing can be considered as flood protection.

OWP-06603

This is an example of a FEMA flood insurance policy number. Each property should have a unique policy number that corresponds to its FEMA flood map number. This number is used to determine the flood insurance premium for the property.