

P.O. Box 13231, 1700 N. Congress Ave. Austin, TX 78711-3231, www.twdb.texas.gov Phone (512) 463-7847, Fax (512) 475-2053

#### ENVIRONMENTAL DETERMINATION

TO: File

FROM: T. Clay Schultz, Ph.D., Director, Regional Water Project Development Clay Schultz Description (Clay Schultz Description of Clay Schultz

**SUBJECT:** City of Socorro, El Paso County, Texas

TWDB FIF Category 2 Project No. 40186

Sparks Arroyo Drainage Project

Total Commitment Amount: \$10,097,281

Loan No. L1001486 Grant No. G1001487

The environmental review for the City of Socorro (City) Sparks Arroyo Drainage Project has been completed consistent with 31 Texas Administrative Code (TAC) § 363.14 and § 363.16. The City is proposing to use \$10,097,281 in financing from the Flood Infrastructure Fund (FIF) Program for planning, acquisition, design, and construction of the project. The Texas Water Development Board (TWDB) committed this financing on May 11, 2022. The City closed the financing on September 7, 2022.

The Sparks Arroyo channel currently overtops the banks during extreme storm events for most of this length near Stockyard Drive and downstream. The extreme event flows also overtop Stockyard Drive. In addition, the channel receives high amounts of silt deposits from upstream, decreasing the channel capacity and requiring regular dredging. Channel bank erosion is also a serious concern along the channel, especially downstream of Stockyard Drive. The City desires to make improvements to alleviate flooding along the channel.

This environmental review is documented by the enclosed Environmental Determination (ED), which contains mitigative environmental conditions that will be applied to the project to avoid significant adverse impact on waters of the U.S., 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 received by the TWDB on May 20, 2024, with the supplementary materials submitted to the TWDB on October 29, 2024, the project meets the requirements of 31 TAC § 363.14 with the following special and standard environmental conditions:

# Special Environmental Conditions

Consistent with the Flood Insurance Reform Act of 2004, Flood Disaster Protection

Environmental Determination City of Socorro, El Paso County, Texas TWDB FIF Category 2 Project No. 40186 Sparks Arroyo Drainage Project Page 2

Act, Executive Order 11988, Texas Water Code Section 16.315, and local floodplain development ordinances, the City of Socorro (City) must obtain a floodplain development permit issued by the Local Floodplain Administrator for the City prior to construction in a Special Flood Hazard Area. The City is a participant in the National Flood Insurance Program.

- As per an agreement with the Texas Parks and Wildlife Department (TPWD), Ecological & Environmental Planning Program (TPWD Project No. 52187), to ensure compliance with Texas Parks and Wildlife Code, Chapters 12, 64, 67, and 68, the Endangered Species Act of 1973, as amended, the Migratory Bird Treaty Act (MBTA), and applicable federal regulations pertaining to protected species, including Texas horned lizard (*Phrynosoma cornutum*), tricolored bat (*Perimyotis subflavus*), and Western burrowing owl (*Athene cunicularia hypugaeathe*), the following measures will be implemented:
  - Consistent with the MBTA, which provides protection to most native bird species, vegetation clearing must be excluded during the general bird nesting season, 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 will 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. Raptor nesting occurs late winter through early spring; TPWD recommends construction activities be excluded from a minimum zone of 100 meters (approximately 328 feet) surrounding any raptor nest during the period of February 1 through July 15. State and federal regulations as currently interpreted do not permit incidental take.
  - Contractors and construction crews will be informed of the potential for protected species to occur in the project area and instructed to avoid impacts to all wildlife that are encountered. Any wildlife observed will be allowed to safely leave the site handled only by persons with authorization obtained through the TPWD Wildlife Permits Program. Any translocations of reptiles will occur within 100-200 yards from the initial encounter location. Wildlife training should consist of identification of tricolored bats, Western burrowing owl, Texas horned lizards, their habitat, their primary food sources (including harvester ants), and the proper protocol to avoid impact if encountered.
  - The length of trenches left open at any given time during construction will be minimized, and trenches will be covered overnight. Escape ramps will be installed along open trenches and excavated pits 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. Trenches and excavation areas will be visually inspected for trapped wildlife every morning or if left open longer than two daylight hours prior to resuming construction activities.

Environmental Determination City of Socorro, El Paso County, Texas TWDB FIF Category 2 Project No. 40186 Sparks Arroyo Drainage Project Page 3

- 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.
- The project area may provide suitable habitat for the western burrowing owl, which is protected under the MBTA, and take of these birds, their nests, and eggs is prohibited. This is a ground-dwelling bird species that nests in burrows of prairie dogs and other fossorial animals but may also nest and/or roost in storm drains, drainage pipes, and cement culverts, on banks, along irrigation canals, under asphalt or wood debris piles, or openings under concrete pilings or asphalt. Project areas should be inspected for nesting or roosting sites prior to the beginning of ground disturbance activities. TPWD recommends conducting ground disturbance activities outside of breeding season (March 15 to September 15). Excavation of an active nest burrow may destroy eggs, young owls, or even adults and is a violation of the MBTA. Contractors should be advised for the potential for this species to occur in the project area year-round, and to avoid harming this species and their nests or burrows if encountered.
- The following beneficial management practices (BMPs) will be implemented to minimize potential impacts to the Texas horned lizard, which is state listed as threatened, as well as other reptile species that may occur in the project area:
  - Biological Monitor and Horned Lizard Encounters TPWD recommends a biological monitor be present during construction to identify and relocate Texas horned lizards or other state listed species if found. If the presence of a biological monitor during construction is not feasible, state listed species observed during construction should be allowed to safely leave the site on their own or be relocated to a nearby area with similar habitat that would not be disturbed during construction. TPWD recommends that any translocations of reptiles be the minimum distance possible no greater than one mile, preferably within 100 to 200 yards from the initial encounter location. After horned lizard removal, the area that will be disturbed during active construction and project specific locations should be fenced off to exclude horned lizards and other reptiles. In addition, impacts to harvester ant mounds should be avoided where feasible.
  - Work During Cold Weather If construction activities take place during cold weather, it is recommended that construction personnel stay observant of activities that may harm the Texas horned lizard, such as disruption of burrows. In cold weather, this species will use burrows or pallets near the base of vegetation for shelter. Their slow metabolism in cold weather can reduce movements, restricting their ability to flee from danger.

Environmental Determination City of Socorro, El Paso County, Texas TWDB FIF Category 2 Project No. 40186 Sparks Arroyo Drainage Project Page 4

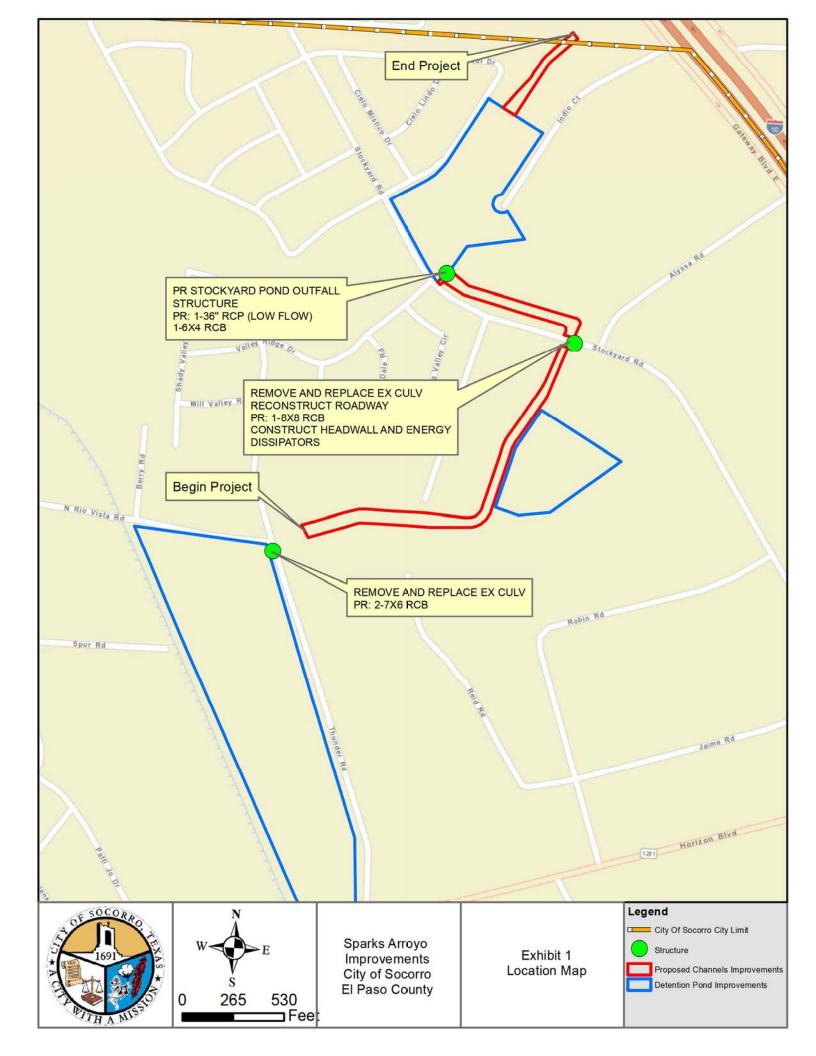
- Heavy equipment stored on site should be examined before use, particularly after rain events when reptile and amphibian movements occur more often, to ensure use will not harm individuals that might be seeking temporary refuge. TPWD recommends instructing contractors to avoid.
- Occupancy survey of the culverts will be conducted prior to construction to ensure no bats are roosting in areas where existing structures would be removed and replaces. Bat surveys of structures would include visual inspections of structural fissures, and crevices. If bats are present or recent signs of occupation (i.e., piles of guano, distinct musky odor, or staining and rub marks at potential entry points) are observed, take appropriate measures to ensure that bats are not harmed, such as implementing non-lethal exclusion activities or timing or phasing of construction. In all instances, avoid harm or death to bats. Bats should only be handled as a last resort and after communication with TPWD.

## Standard Environmental Conditions

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

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

Enclosures





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### **MEMORANDUM**

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

THROUGH: Bill Blaik, Regional Water Project Development Bill Blaik Date: 2025.05.06 15:42:33 Ostoo

FROM: Gayla Duaine, Environmental Protection Specialist

Gayla Duaine Digitally signed by Gayla Duaine Date: 2025.05.06 14:16:17 - 05'00'

SUBJECT: City of Socorro, El Paso County, Texas

TWDB FIF Category 2 Project No. 40186

Sparks Arroyo Drainage Project

Total Commitment Amount: \$10,097,281

Loan No. L1001486 Grant No. G1001487

As required by the rules of the Texas Water Development Board (TWDB), 31 Texas Administrative Code (TAC) § 363.14 and § 363.16, an environmental review has been performed for the Sparks Arroyo Drainage Project proposed by the City of Socorro (City) in El Paso County, Texas. The City is proposing to use \$10,097,281 in financing from the Flood Infrastructure Fund (FIF) Program for planning, acquisition, design, and construction of the project. The Environmental Determination (ED) completed for the proposed project is based primarily on the Environmental Data Form (EDF)<sup>1</sup> received by the TWDB.

#### PROJECT DESCRIPTION

The City is proposing to increase the channel capacity of Sparks Arroyo from IH-10 to the Onion Field Retention Basin, construct the inline Stockyard Regional Detention Basin, and culvert improvements at Stockard Drive and Thunder Road. All improvements will drain into the improved Onion Field Basin, designed to retain flows before entering the Mesa Spur Drain.

The project components covered by this environmental assessment include:

 Construction of Stockyard Regional Detention Basin, a 10-foot deep, 25.1-acre feet, inline detention facility upstream of Stockyard Drive, with an outfall structure of 36inch reinforced concrete pipe and a 6- by 4-foot reinforced concrete box (RCB)

<sup>&</sup>lt;sup>1</sup> City of Socorro (May 2024). Environmental Data Form (EDF), Sparks Arroyo Drainage Project, prepared by CSR Environmental and Consulting. Received by TWDB on May 20, 2024. The EDF is complete with the supplementary materials submitted to the TWDB on October 29, 2024.

- Replacement of three RCB culverts at Stockyard Drive with one 8- by 8-foot RCB culvert
- Replacement of four RCB culverts at Thunder Road with three 7- by 6-foot RCB culverts
- Construction of Sparks Arroyo improvements from IH-10 to Thunder Road, including an 8-foot-wide channel with concrete lined banks from IH-10 to Stockyard Drive, and a 20-foot-wide channel from Stockyard Drive to Thunder Road
- Other miscellaneous improvements related to the structure and stability of the channel improvements, such as gabion drop structures, dry rock rubble, and modifications to roadway gutters, railing, and pavement
- Acquisition of seven parcels of property for construction of the above elements

## **PURPOSE AND NEED**

The Sparks Arroyo channel currently overtops the banks during extreme storm events for most of this length near Stockyard Drive and downstream. The extreme event flows also flood the Stockyard Drive roadway. In addition, the channel receives high amounts of silt deposits from upstream, further decreasing the channel capacity and requiring regular dredging. Channel bank erosion is also a serious concern along the channel, especially downstream of Stockyard Drive.

## **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 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.

 Texas Historical Commission (THC), in accordance with the Antiquities Code of Texas (THC Tracking No. 202407317)

- United States Army Corps of Engineers (USACE), Regulatory Branch, Albuquerque District, Las Cruces Regulatory Office, in accordance with Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act of 1899 (no project number issued)
- Texas Parks and Wildlife Department (TPWD), 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. 52187)
- United States Fish and Wildlife Service (USFWS), Alamo Ecological Services Field Office, in accordance with the Endangered Species Act and statutes affecting other federally protected species (USFWS Project Codes 2023-0041803 and 2024-TA-0070649)

## Texas Historical Commission

The THC was given the opportunity to review the project and the results of a desktop study submitted on October 13, 2023. There are several previously recorded significant or potentially significant sites within or adjacent to the project footprint according to THC Archeological Sites Atlas. In addition, a portion of the project is within the El Paso County Water Improvement District No. 1, which was listed in the National Register of Historic Places (NRHP) in 1997. The project is not within the protected area surrounding a historic cemetery or structure. The desktop study concluded that there is a high potential for buried cultural resources at any depth, and that – due to the depth of project impacts reaching 15 feet – intensive archeological survey augmented with mechanical testing is recommended.

In correspondence dated April 11, 2024 (THC Tracking No. 202407317), the THC staff commented that the integrity of cultural resources that may have existed in the project area is likely to have been affected by extensive previous earthmoving activities in the drainage area, and no effect of the project on identified archeological sites is expected. Therefore, an archeological survey was not recommended by THC staff. In addition, the THC staff concluded that no actions or further review of above-ground historic resources is required under the Antiquities Code of Texas. However, should this project include Federal involvement in the future, additional consultation with the THC would be required.

#### United States Army Corps of Engineers

The USACE Albuquerque District, Las Cruces Regulatory Office was given the opportunity to review the project in a letter dated April 13, 2024. Included in the letter was a description of the project and project area, a summary of historical aerial photographs and topographic maps, the USFWS National Wetland Inventory (NWI) features identified within the project area, and the soil types contained within the project area. The City was informed that the Sparks Arroyo had been determined to be non-jurisdictional in a phone call with USACE staff member Justin Riggs on April 30, 2024, and therefore, no waters of the United States will be affected by the proposed project. The USACE issued an Approved Jurisdictional Determination on July 9, 2024 (SPA-2024-00225), with their conclusion that Sparks Arroyo is not a water of the United States.

# Texas Parks and Wildlife Department

The TPWD Ecological & Environmental Planning Program staff reviewed the project in accordance with the Texas Parks and Wildlife Code, and provided a response dated May 7,2024 (TPWD Project No. 52187). The TPWD staff made recommendations to prevent impacts to protected, aquatic, and invasive species.

In correspondence dated October 29, 2024, Mark Iglesias, on behalf of the City, responded regarding their commitment to the TPWD 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 Ecological Services, Alamo Sub-Office, in accordance with the Endangered Species Act and statutes affecting other federally protected species, was given the opportunity to review the project (Project Code Nos. 2023-0041803and 2024-TA-0070649) and the results of a survey of the project area by a qualified biologist on October 13, 2023.

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. There was no designated critical habitat within the project area.

Potential habitat was observed for the Tricolored Bat, *Perimyotis subflavus*, which has been proposed for federal listing as an endangered species. This bat is known to utilize culverts for roosting, which may be found within the project area, although no indication of the presence of these bats was observed during the field survey. Potential impacts will be avoided by conducting occupancy surveys of the culverts prior to and during construction, as indicated in the environmental conditions of this ED.

The USFWS did not provide formal consultation due to lack of Federal involvement with the project. However, the project was reviewed for impacts to protected species, and the USFWS made recommendations to avoid or minimize impacts to protected migratory birds which have also been incorporated into the environmental conditions of this ED.

## Local Floodplain Administrator

The effective FIRM No. 4802120237B, dated September 4, 1991, shows Sparks Arroyo Channel to be defined as Zone AE through the project limits. Zone AE represents the 100-year floodplain with defined water surface elevations. The Onion Field area is defined as Zone A, which represents 100-year floodplain with an approximate flood depth. This environmental finding is conditioned to require a floodplain development permit from the local floodplain manager of the City of Socorro 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 and 363.16. 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 the Flood Insurance Reform Act of 2004, Flood Disaster Protection Act, Executive Order 11988, Texas Water Code Section 16.315, and local floodplain development ordinances, the City of Socorro (City) must obtain a floodplain development permit issued by the Local Floodplain Administrator for the City prior to construction in a Special Flood Hazard Area. The City is a participant in the National Flood Insurance Program.
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   (MBTA), and applicable federal regulations pertaining to protected species, including
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   and Western burrowing owl (*Athene cunicularia hypugaeathe*), the following
   measures will be implemented:
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    recommends a biological monitor be present during construction to
    identify and relocate Texas horned lizards or other state listed species
    if found. If the presence of a biological monitor during construction is
    not feasible, state listed species observed during construction should
    be allowed to safely leave the site on their own or be relocated to a

nearby area with similar habitat that would not be disturbed during construction. TPWD recommends that any translocations of reptiles be the minimum distance possible no greater than one mile, preferably within 100 to 200 yards from the initial encounter location. After horned lizard removal, the area that will be disturbed during active construction and project specific locations should be fenced off to exclude horned lizards and other reptiles. In addition, impacts to harvester ant mounds should be avoided where feasible.

- Work During Cold Weather If construction activities take place during cold weather, it is recommended that construction personnel stay observant of activities that may harm the Texas horned lizard, such as disruption of burrows. In cold weather, this species will use burrows or pallets near the base of vegetation for shelter. Their slow metabolism in cold weather can reduce movements, restricting their ability to flee from danger.
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## Standard Environmental Conditions

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