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MEMORANDUM

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

Clay Schultz Digitally signed by Clay Schultz Date: 2026.05.19 09:08:46 -05'00'

THROUGH: Kevin Smith, Regional Water Project Development

Kevin Smith Digitally signed by Kevin Smith Date: 2026.05.01 10:02:14 -05'00'

FROM: Lauren Dill, Environmental Protection Specialist

Lauren Dill Digitally signed by Lauren Dill Date: 2026.04.30 11:08:27 -05'00'

SUBJECT: Cameron County Drainage District No. 5, Cameron County, Texas
TWDB FIF Category 2 Project No. 40081
North Main Drainage Channel Improvement and Regional Detention Pond Project
Total Commitment Amount: $5,003,000
Commitment Nos. L1001250 and G1001251

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 North Main Drainage Channel Improvement and Regional Detention Pond project proposed by the Cameron County Drainage District No. 5 (District) in Cameron County, Texas. The District is proposing to use $5,003,000 in funding from the Flood Infrastructure Fund 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 proposed project covered by this environmental review consists of the following components:

- Construction of a 17-acre (187 acre-foot) detention pond east of the North Main drainage ditch
- Construction of a 9-acre (94 acre-foot) detention pond west of the North Main drainage ditch
- Installation of primary outfall structures (24- and 36-inch corrugated metal pipes) designed to allow the pond to slowly release stormwater captured from adjacent areas

[1] Cameron County Drainage District No. 5 (April 2026). Environmental Data Form (EDF), North Main Drainage Channel Improvement and Regional Detention Pond Project, Prepared by Stantec Consulting Services Inc. Received by the TWDB on April 2, 2026. The EDF is complete with the supplementary materials submitted to the TWDB on April 15, 2026.

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L'Oreal Stepney, P.E., Chairwoman | W. Brady Franks, Board Member | Ashley Morgan, Board Member
Bryan McMath, Executive Administrator

- Installation of secondary outfalls (concrete weirs) designed to release stormwater in instances where the pond's capacity is exceeded
- Installation of rock rip-rap erosion control (pond banks adjacent to weirs)
- Installation of concrete rip-rap erosion control (ditch bottom, pond banks, and at various outfall locations along the channel above the ordinary high water mark)
- Removal and replacement of and/or installation of extensions to existing downdrains
- Widening of approximately 2.7 miles of the North Main drainage ditch

The proposed ponds will be excavated on wooded tracts of land owned by the District, in Harlingen, Texas, that were formerly agricultural fields. Concrete riprap will be installed on the bottom of the North Main drainage ditch, which will require dewatering. Concrete riprap will also be installed at various locations of downdrain outfalls along the banks of the North Main drainage channel, and dewatering may be required (these locations are primarily above the ordinary high water mark). Currently, bridges cross the North Main drainage ditch at Farm-to-Market Road (FM) 507, Hoening Road, FM 508 (Combes Rio Hondo Road), and Briggs Coleman Road. These structures may require modification to ensure that existing headwalls match proposed bank conditions. Adjustments of waterlines at Briggs Coleman, FM 508, and FM 507 will be accomplished by directional boring with the proposed pipe being a minimum of five feet below the flowline of the ditch. The work will result in the construction of a 76.67-linear-foot concrete wing wall and scour pad as well as approximately 4,258 linear feet of earthen fill.

PURPOSE AND NEED

The District is responsible for managing stormwater, and this function is especially important during flood events. The District needs to reduce the risk of flooding in the drainage area served by North Main drainage ditch. The purpose of the proposed project is to reduce peak flood flows, increase stormwater storage capacity, and improve conveyance.

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, 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 United States 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 and local authorities regarding the proposed project's potential impact. The District 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 (THC), in accordance with Section 106 of the National Historic Preservation Act and the Antiquities Code of Texas (Texas Antiquities Permit No. 30863, THC Tracking No. 202308614)

- United States Army Corps of Engineers (USACE), Regulatory Branch, Galveston District, Corpus Christi Regulatory Field Office, in accordance with Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act of 1899 (USACE Project No. SWG-2023-00445, Nationwide Permit 43 for Storm Water Management Facilities)

- Texas Parks and Wildlife Department (TPWD), Wildlife Division, Ecological and Environmental Planning 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 Project No. 54888)

- United States Fish and Wildlife Service (USFWS), Texas Coastal and Central Plains Ecological Services Field Office, Alamo Sub-Office, in accordance with the Endangered Species Act and statutes affecting other federally protected species (USFWS Project No. 2025-0111762)

- USFWS, Texas Coastal and Central Plains Ecological Services Field Office, Corpus Christi Sub-Office, in accordance with the Endangered Species Act and statutes affecting other federally protected species (USFWS Project No. 2025-TA-0111762)

- Cameron County floodplain administrator pursuant to the National Flood Insurance Program (NFIP)

The District also coordinated with the following entity, and no response was required:

- State of Texas NFIP State Coordinator, TWDB

Texas Historical Commission

A cultural resources survey was performed by Stantec Consulting Services Inc. (Stantec) under Texas Antiquities Permit No. 30863. The survey report[2], dated January 10, 2022, was reviewed by the THC in accordance with the Antiquities Code of Texas. In correspondence dated June 15, 2023, the THC concurred that no historic properties, archeological sites, or other cultural resources will be affected by the project (THC Tracking No. 202308614).

Although federal funding is not anticipated, the proposed project requires authorization from the USACE; therefore, compliance with Section 106 of the National Historic Preservation Act of 1966, as amended, is required. A historic resources background review[3] was conducted by Stantec to determine whether the proposed project could affect historic properties, including National Register of Historic Places (NRHP) eligible properties. For the review, Stantec recommended an area of potential effects (APE) that includes the proposed project footprint plus a buffer of 150 feet. The APE is located within the historic-age irrigation district, Harlingen Irrigation District Cameron County No. 1. The Texas Department of Transportation determined that the district was not eligible for the NRHP in 2009, and the THC concurred. There are no other previously documented or designated resources in the APE.

A review of available historical aerial photographs and topographic maps on the Nationwide Environmental Title Research and the United States Geological Survey Historical Topographic Map Viewer was undertaken to determine how the proposed project area has been utilized over time. Historical maps from 1929, 1932, 1953, 1956, 1962, and 1992 were reviewed. The review revealed that the proposed project has potential to affect historic-age and potentially historic-age resources.

The USACE authorization of impacts to waters of the United States requires proof that proposed projects will not affect historic resources (NWP General Condition 20). In addition to coordination with the THC, pre-construction archeological investigations were conducted and included as part of the coordination with the USACE. The proposed project was approved and Section 106 compliance was confirmed through the USACE review.

United States Army Corps of Engineers

The USACE, Galveston District, Regulatory Division was given the opportunity to review the proposed project (USACE Project No. SWG-2023-00445) and wetland delineation report[4], dated March 24, 2025. In correspondence dated June 9, 2025, the USACE, Galveston District verified that the proposed project is authorized by NWP 43 for Stormwater Management Facilities.

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[2] Stantec Consulting Services Inc., January 10, 2022, Archeological Resources Survey Report (Draft) for North Main Improvements, Cameron County, Texas, prepared Cameron County Drainage District No. 5,Texas Antiquities Permit No. 30863/THC Tracking No. 202308614.

[3] Stantec Consulting Services Inc., June 8, 2024, Section 106 Consultation for North Main Drainage Ditch Project, Cameron County, Texas, prepared for Cameron County Drainage District No. 5, Texas, Antiquities Permit No. 30863/THC Tracking No. 202308614.

[4] Stantec Consulting Services Inc., March 24, 2025, Delineation Report for CCDD5 Drainage Improvement Project – North Main, Cameron County, Texas, prepared for Cameron County Drainage District No. 5, United States Army Corps of Engineers Project No. SWG-2023-00445.

Texas Parks and Wildlife Department

A biological field study of the proposed project area was performed by qualified biologists in July 2022 and August 2023, and a report[5] on potential impacts to threatened and endangered species and habitat was submitted to the TPWD Wildlife Division, Ecological and Environmental Planning Program staff for review, in accordance with Texas Parks and Wildlife Code. The TPWD provided a response dated June 18, 2025 (TPWD Project No. 54888).

The TPWD provided general construction recommendations, including beneficial management practices regarding the placement of sediment control fencing to exclude wildlife access to construction areas; soil stabilization and/or revegetation of disturbed areas; other recommendations including avoidance of entanglement hazards of mesh erosion control or mats and entrapment of species in open trenches and excavated areas; and minimizing impacts to vegetation and wildlife habitat.

Recommendations by the TPWD intended to mitigate or avoid potential impacts to protected species were included for migratory birds; state-listed (threatened) black-spotted newt (*Notophthalmus meridionalis*), south Texas siren (large form; *Siren* sp.), Mexican treefrog (*Smilisca baudinii*), sheep frog (*Hypopachus variolosus*), white-lipped frog (*Leptodactylus fragilis*), black-striped snake (*Coniophanes imperialis*), northern cat-eyed snake (*Leptodeira septentrionalis septentrionalis*), speckled racer (*Drymobius margaritiferus*), Texas horned lizard (*Phrynosoma cornutum*), and Texas tortoise (*Gopherus berlandieri*); aquatic resources; and Species of Greatest Conservation Need that have been recorded in the Texas Natural Diversity Database within and near the proposed project area, including the Rio Grande river cooter (*Pseudemys gorzugi*), slender glass lizard (*Ophisaurus attenuatus*), western (ornate) box turtle (*Terrapene ornata*), western massasauga (*Sistrurus tergeminus*); and plant species.

In correspondence dated September 17, 2025, Stantec, on behalf of the District, responded regarding the District's commitment to the recommendations. To mitigate or avoid potential impacts, the TPWD recommendations are summarized as special environmental conditions in the ED.

United States Fish and Wildlife Service

The USFWS, Texas Coastal and Central Plains Ecological Services Field Office, Corpus Christi Sub-Office received the District's email letter on June 19, 2025, regarding the effects of the proposed project on federally listed species in Cameron County, Texas.

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[5] Stantec Consulting Services Inc., May 7, 2025, North Main Drainage Improvements Project, Wildlife Habitat Assessment (WHAB) Program Review, Supplementary Materials, prepared for Cameron County Drainage District No. 5, TPWD Project No. 54888.

In a letter dated August 13, 2025 (USFWS Reference No. 2025-TA-0111762), the USFWS found that the proposed project area, characterized by densely wooded vegetation with sparse groundcover and thick understory, could have potential habitat for the federally endangered Texas ayenia (*Ayenia limitaris*). The USFWS requested information about the plant survey method conducted, time of year, the species found in this type of habitat, and the engineering excavation design plans for the two proposed stormwater detention ponds. In addition, the USFWS recommended that a vegetative buffer be left around the proposed excavation of the two stormwater detention ponds to minimize soil erosion, minimize the increase of sedimentation during heavy rainstorms, and minimize the removal of native habitat as much as practical.

The USFWS also recommended that, to avoid or minimize impacts to birds protected by the Migratory Bird Treaty Act, bird surveys should be conducted no more than five days prior to ground disturbing activities and mechanical clearing of brush and trees that occur between March 15 and September 15. Surveys should include searches for birds, nests, and eggs. The USFWS recommended leaving a buffer of vegetation of 100 feet or more around songbird nests detected until young have fledged or the nest is abandoned. Other species, such as water birds or raptors, require larger buffer distances of 0.5 mile.

In correspondence dated September 8, 2025, Stantec, on behalf of the District, provided the USFWS with the plant survey methods and species found within the proposed project area. Stantec also responded to the USFWS's recommended vegetative buffer around the proposed stormwater detention ponds stating that native habitat will be preserved on adjacent District-owned parcels, and the ponds have been designed to reduce sedimentation during storm events. In addition, the District committed to restricting initial ground disturbing activities during the migratory bird nesting season unless appropriate surveys can be conducted. The District understands that this restriction applies specifically to initial ground disturbance such that excavations and similar ground disturbing activities may proceed into the nesting season provided they are in the same location as initial ground disturbance activities that were begun prior to that period. If mechanical clearing of brush or trees or initial ground disturbing activities must be scheduled for the nesting season, the recommended buffers will be established around any active nests until young have fledged.

Local Floodplain Administrator

To ensure compliance with Federal Emergency Management Agency (FEMA) requirements, the District notified the Cameron County floodplain administrator as well as the State of Texas NFIP Coordinator. The proposed project includes construction of two regional detention ponds as well as channel widening improvements within the 500-year floodplain (FEMA Zone X).

According to the Cameron County floodplain administrator, in correspondence dated February 19, 2026, Cameron County only regulates construction of critical facilities in the 500-year floodplain, and the proposed project is not considered a critical facility. The Cameron County floodplain administrator requires submittal of erosion control plans with the project's site development permit.

CONDITIONS AND RECOMMENDATIONS

An environmental review of the proposed 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 waters of the United States, 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 District 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:

<u>Special Environmental Conditions</u>

- In accordance with agreements with the Texas Parks and Wildlife Department (TPWD Project No. 54888) and United States Fish and Wildlife Service (USFWS Project No. 2025-0111762), to ensure compliance with Chapter 57 of the Texas Parks and Wildlife Code, 31 Texas Administrative Code (TAC) 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 and invasive species, including the state-listed (threatened) black-spotted newt (*Notophthalmus meridionalis*), south Texas siren (large form; *Siren* sp.), Mexican treefrog (*Smilisca baudinii*), sheep frog (*Hypopachus variolosus*), white-lipped frog (*Leptodactylus fragilis*), black-striped snake (*Coniophanes imperialis*), northern cat-eyed snake (*Leptodeira septentrionalis septentrionalis*), speckled racer (*Drymobius margaritiferus*), Texas horned lizard (*Phrynosoma cornutum*), and Texas tortoise (*Gopherus berlandieri*); aquatic resources; and Species of Greatest Conservation Need, including the Rio Grande river cooter (*Pseudemys gorzugi*), slender glass lizard (*Ophisaurus attenuatus*), western (ornate) box turtle (*Terrapene ornata*), western massasauga (*Sistrurus tergeminus*); and plant species; and federally-listed (endangered) Texas ayenia (*Ayenia limitaris*), the following measures will be implemented:

- Mechanical vegetation clearing and initial ground disturbance activities will be avoided during the general bird nesting season (March 15 through September 15) to avoid adverse impacts to breeding birds. If mechanical vegetation clearing and initial ground disturbing activities during this time are unavoidable, the area proposed for clearing and disturbance will be surveyed by a qualified biologist to identify active nests, not more than five days prior to clearing and disturbance activities, to maximize the detection of active nests, including recently constructed nests. If active nests are observed during surveys, a vegetation buffer area of no less than 100 feet in diameter will remain around the nest until eggs have hatched and the young have fledged; however, the size of the buffer zone depends on various factors and can be coordinated with the local or regional United States Fish and Wildlife Service (USFWS) office. According to the USFWS, a vegetation buffer of 0.5 miles is required for other species, such as water birds or raptors.

- Contractors will be instructed to not harm wildlife and to allow wildlife to leave the site on their own. If wildlife is encountered, the animals will be allowed to leave the area safely. State and federally listed species will be handled only by people with authorization obtained through the Texas Parks and Wildlife Department.

- Construction techniques will include the placement of silt fence along the perimeter of the pond sites and along the benching operations along the banks of the North Main drainage ditch, to deter wildlife and reduce potential access to the construction site.

- Vegetation impacts will be minimized to the amount required to meet the project goals. The ultimate site condition will preserve vegetated surfaces to the maximum extent practicable. Vegetation (i.e., native habitat) will be preserved on adjacent District-owned parcels. The ponds have been designed to reduce sedimentation during storm events. Key design elements include the vegetated surfaces and slow-release function.

- Impacts to water features will be reduced to the greatest extent practicable.

- The project will not construct permanent access roads in existing water features. Temporary access to the North Main drainage ditch will be restricted to that necessary for construction of the pond outfalls and erosion control measures.

- 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 43 for Stormwater Management Facilities (USACE Project No. SWG-2023-00445).

Standard Environmental Conditions

- Consistent with the Texas Water Development Board Supplemental Construction Contract Conditions (TWDB-0552), the Cameron County Drainage District No. 5 will abide by the standard emergency condition for the discovery of cultural resources.

- Consistent with the Texas Water Development Board Supplemental Construction Contract Conditions (TWDB-0552), the Cameron County Drainage District No. 5 will abide by the standard emergency condition for the discovery of threatened and endangered species.

Therefore, it is recommended that an ED be issued.