Draft Environmental Assessment

Jefferson County Drainage District No. 7
Groves Detention Project
HMGP-4332-0168-TX (1)
Groves, Jefferson County, Texas

February 2025

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LIST OF ACRONYMS

ACM – Asbestos Containing Materials
ALERT – Automated Local Evaluation in Real Time
APE – Area of Potential Effect
ASTM – American Society for Testing and Materials
BFE – Base Flood Elevation
BMP – Best Management Practice
CERCLA – Comprehensive Environmental Response, Compensation, and Liability Act
CERCLIS – Comprehensive Environmental Response, Compensation, and Liability Information System
CESQGs – Conditionally Exempt, Small-Quantity Generators
CFR – Code of Federal Regulations
CORRACT – Corrective Action
DRYC – Dry Cleaning
EA – Environmental Assessment
EPA – US Environmental Protection Agency
ERIS – Environmental Resource Information Service
ERNS – Emergency Response Notification System
ESA – Endangered Species Act
FEMA – Federal Emergency Management Agency
FIRM – Flood Insurance Rate Map
FM – Farm to Market
FONSI – Finding of No Significant Impact
FPPA – Farmland Protection Policy Act
GLO – General Land Office
HEC-1 – Hydrologic Engineering Center – 1 Model
HECRAS – Hydrologic Engineering Center River Analysis System
HECHMS – Hydrologic Engineering Center Hydrologic Modeling System
HMGP – Hazard Mitigation Grant Program
IH – Interstate Highway
ISD – Independent School District
JCCAD – Jefferson County Central Appraisal District
JCDD7 – Jefferson County Drainage District No. 7
Km - Kilometer
LFUN – TCEQ Solid Waste Facilities and Unauthorized and Unpermitted Landfill
LJAES – LJA Environmental Services LLC
LOMA – Letter of Map Adjustment
LOMR – Letter of Map Revision
LQGs – Large-Quantity Generators
MSA – Metropolitan Statistical Area
MSL – Mean Sea Level
NDD – Natural Diversity Database
NEPA – National Environmental Policy Act
NFIP – National Flood Insurance Program
NFRAP – No Further Remedial Action Planned
NHPA – National Historic Preservation Act
NHT – National Historic Trails
NOI – Notice of Intent
NOx – nitrogen oxides

NPL – National Priority List
NPS – National Park Service
NRCS – Natural Resources Conservation Service
NRHP – National Register of Historic Places
NWI – National Wetland Inventory
NWS – National Weather Service
PRPs – Potentially Responsible Parties
RCRA – Resource Conservation and Recovery Act
RCRA-G – RCRA Generators
RCRA-TSD – RCRA Treatment, Storage, or Disposal
RCRIS – Resource Conservation and Recovery Information System
RFI – RCRA Facility Investigation
ROW – right-of-way
RRC – Railroad Commission of Texas
SALs – State Archeological Landmarks
SARA – Superfund Amendments and Reauthorization Act
SH – State Highway
SHPO – State Historic Preservation Office
SQGs – Small-Quantity Generators
SWG – Southwest Division, Galveston District
SWPPP – Storm Water Pollution Prevention Plan
TAC – Texas Administrative Code
TCEQ – Texas Commission on Environmental Quality
THC – Texas Historical Commission
TMDL – Total Maximum Daily Load
TPDES – Texas Pollutant Discharge Elimination System
TPWD – Texas Parks and Wildlife Department
TSMASS – Texas State Minimum Archeological Survey Standards
TWDB – Texas Water Development Board
TXAST – Texas Aboveground Storage Tank
TXIOP – Texas Innocent Owner/Operator Program
TXLF – TCEQ Solid Waste Facilities
TXLUSTs – Texas Leaking Underground Storage Tanks
TXSPILL – Hazardous or Potentially Hazardous Substances Spills
TXSSF – Texas State Superfund database
TXUSTs – Texas Underground Storage Tanks
TXVCP – Texas Voluntary Cleanup Program
USACE – US Army Corps of Engineers
USCB – US Census Bureau
USDA – US Department of Agriculture
USFWS – US Fish and Wildlife Service
USGS – United States Geological Survey
UT-BEG – University of Texas Bureau of Economic Geology
VOC – Volatile Organic Compound

1.0 INTRODUCTION

1.1 PROJECT AUTHORITY

Jefferson County Drainage District No. 7 (JCDD7) (the Applicant) is a political subdivision of the State of Texas that serves drainage needs in southern Jefferson County. JCDD7 was established in February 1946. JCDD7 assumed responsibilities for Jefferson County Drainage District No. 4 on November 27,1961 after a vote in the 1961 November general election favored consolidation of the two districts. JCDD7 covers the needs for drainage and hurricane protection for approximately 107.5 square miles within Jefferson County, which includes the cities of Port Arthur, Groves, Nederland, and Port Neches, and was created primarily to provide drainage for flood-prone areas within the district. JCDD7 is governed by a five-member Board of Directors appointed by the County Commissioners Court of Jefferson County, Texas (the Commissioners Court).

Funding for the Groves Detention project is being requested from the Federal Emergency Management Agency (FEMA) under the Hazard Mitigation Grant Program (HMGP). FEMA's project number is HMGP- 4332-168-TX(1) . This Environmental Assessment (EA) has been prepared in accordance with the National Environmental Policy Act (NEPA) of 1969, the President's Council on Environmental Quality regulations to implement NEPA (40 Code of Federal Regulations Parts 1500-1508), and FEMA's procedures for implementing NEPA (FEMA Instruction 108-1-1). FEMA is required to consider potential environmental impacts before funding or approving actions and projects. The purpose of this EA is to analyze the potential environmental impacts of the Groves Detention project. FEMA will use the findings in this EA to determine whether to prepare an Environmental Impact Statement (EIS) or a Finding of No Significant Impact (FONSI). FEMA is aware of the November 12, 2024, decision in Marin Audubon Society v. Federal Aviation Administration, No. 23-1067 (D.C. Cir. Nov. 12, 2024). To the extent that a court may conclude that the Council on Environmental Quality (CEQ) regulations implementing NEPA are not judicially enforceable or binding on this agency action, FEMA has nonetheless elected to follow those regulations at 40 CFR Parts 1500–1508, in addition to DHS and FEMA's procedures implementing NEPA found in DHS Directive 023-01-01, DHS Instruction 023-01-001-01, FEMA Directive 108-1, and FEMA Instruction 108-1-1 to meet the agency's obligations under NEPA, 42 U.S.C. §§ 4321 et seq.

1.2 PROJECT LOCATION

The approximately 48-acre Groves Detention project is on the east side of the town of Groves, north of Port Arthur at the northern corner of the State Highway (SH) 87/73 and Taft Avenue intersection in Jefferson County, Texas (Figure 1). Approximate global positioning system (GPS) coordinates for the center of the project area are Latitude: 29.946732, Longitude: -93.892270. The land use surrounding the project area consists of residential and industrial development.

Major transportation arteries in the area include SH 87/73 and Taft Avenue. Topographical information published by the US Geological Survey (USGS) indicates a gently sloping landscape with stormwater runoff flowing generally southwest into the Atlantic Main Canal.

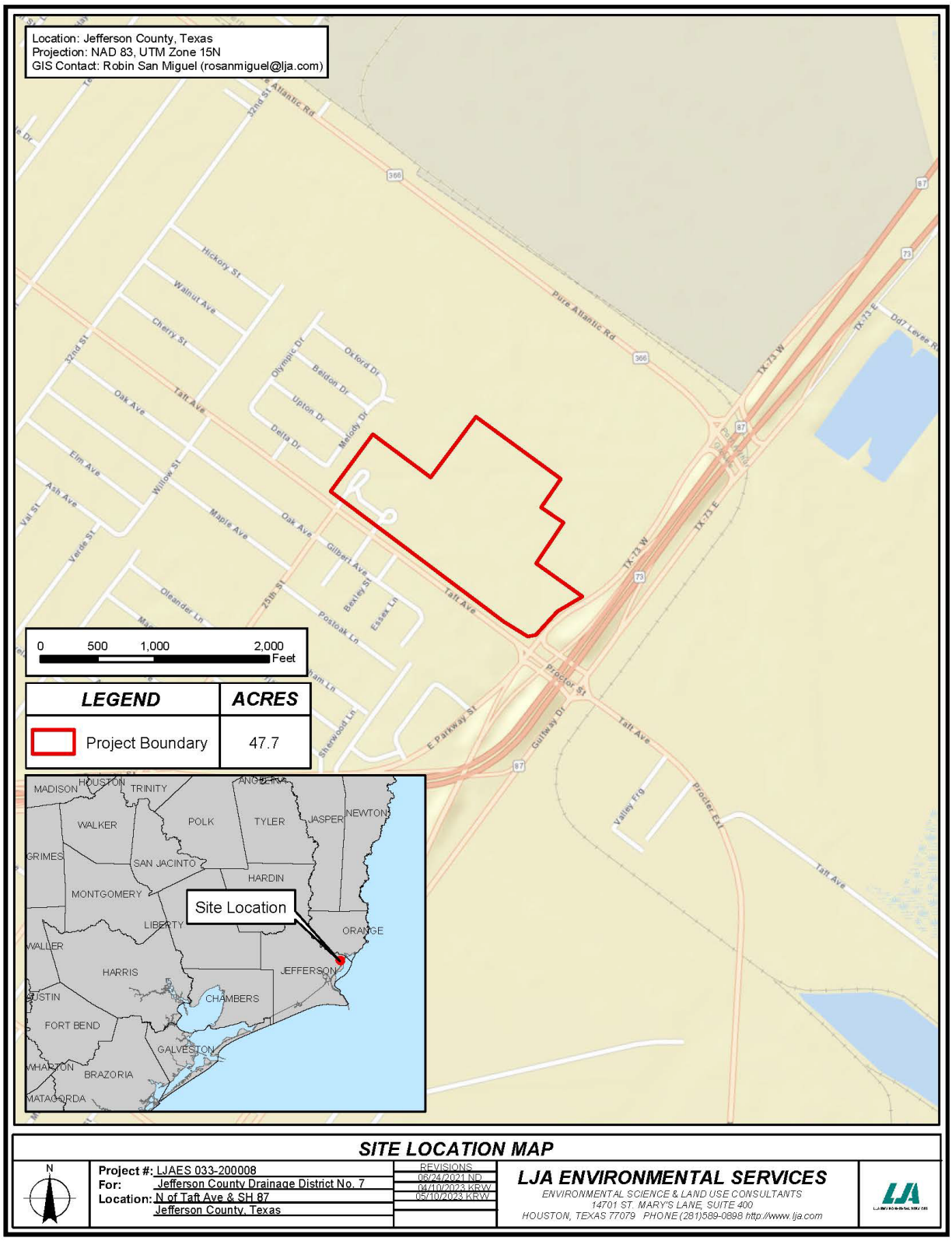

FIGURE 1: VICINITY MAP

1.3 PURPOSE AND NEED OF PROJECT

1.3.1 Purpose

The purpose of the proposed project is to provide flood relief for existing homes and businesses in the Atlantic Main Canal watershed of Groves and Port Arthur by providing temporary storage of excess stormwater from the Atlantic Main Canal and contributing ditches.

1.3.2 Need

Jefferson County experiences a relatively high level of rainfall. Statistics currently indicate average annual rainfall at 48.96 inches. The statistics also indicate that a 24-hour rain event with a 100-year recurrence interval is 18.2 inches, though the highest point rainfall for a 24-hour period recorded by the Applicant is 26.03 inches, which occurred on 29 August 2017 during Hurricane Harvey. Other tropical systems have impacted the region in recent years, including Ike, Rita, Gustav, and Imelda. The local watershed suffers flooding from a rainfall event that may last only two hours.

The JCDD7 Hazard Mitigation Plan (2019) estimated that about 2,300 residential buildings and nearly 2,500 non-residential structures are located in the flood-prone areas of the District. Three hundred and seventy-three properties have received more than one payout for flood insurance claims in JCDD7, totaling over $20 million. Most of these payouts were for structures outside of the 100-year flood plain and occurred during rainfall totals and duration as low as five-year events. Past flood events including Tropical Storm Danielle, Tropical Storm Allison, Hurricane Rita, Hurricane Ike, and Hurricane Harvey, have caused a great deal of damage to houses in the project area.

The portion of the Atlantic Main Canal watershed west of SH 87/73 intended to be benefited by the proposed project is predominantly developed with residential, commercial, and institutional facilities (Figure 2). The lower part of the watershed east of SH 87/73 is partially developed with industrial and public utility developments. The entire watershed is drained by the Atlantic Main Canal which flows to the West Crane Bayou Canal, which then is evacuated to Sabine Lake by the Jefferson County Drainage District's Pump Station # 7. The watershed has experienced significant flooding during hurricanes, tropical storms, and other major precipitation events. Numerous and significant losses to homes, business, and public infrastructure have occurred and many of these are repetitive. The current drainage system, consisting of numerous ditches and a pump station at the edge of Sabine Lake, is inadequate to evacuate flood waters in the watershed fast enough to prevent structure flooding in heavy precipitation events. As a result, flood relief is needed. The two main engineering options to aid flood relief are (1) to expand the capacity of the existing ditches and pump station or (2) to provide detention in the watershed.

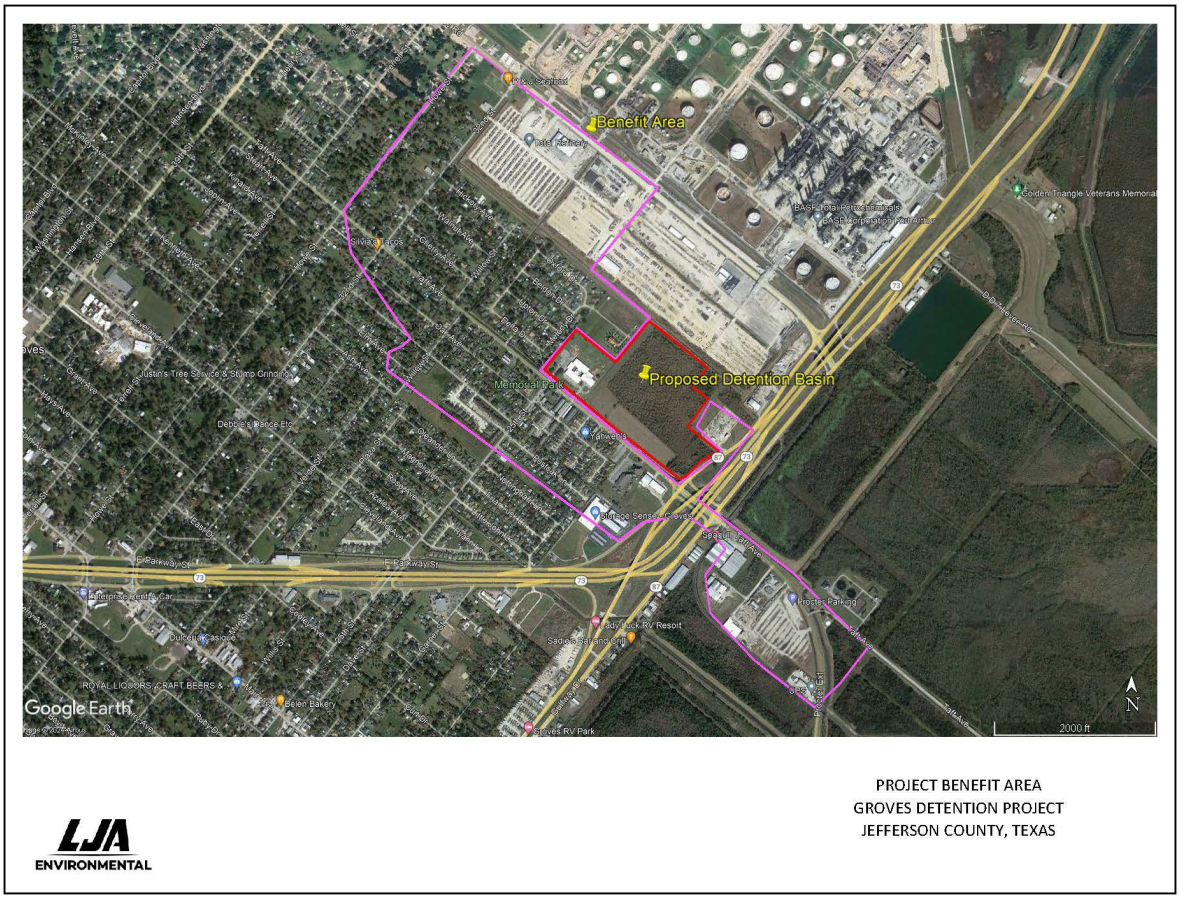

FIGURE 2: BENEFIT AREA MAP

2.0 ALTERNATIVES ANALYSIS

2.1 ALTERNATIVE 1: NO-ACTION ALTERNATIVE

The no-action alternative would not result in the expenditure of FEMA HMGP grant funds or the described impacts to the project site but would result in the continued threat of flooding in the developed areas within the Crane Bayou watershed. However, repetitive flood losses would continue to occur and likely increase, including rainfall rates, tropical storm frequency and intensity, and tide levels affecting the efficiency of drainage in low-lying coastal areas such as the Port Arthur-Groves area.

2.2 ALTERNATIVE 2: BUYOUT ALTERNATIVE

This alternative would require the buyout of numerous existing homes and structures. The existing homes and structures are those within the Benefit Area as shown in Figure 2. Based on Jefferson Central Appraisal District (JCAD) values plus ancillary fees, it is estimated that it would cost in excess of $38 million to acquire and demolish the homes and relocate residents for which benefits were calculated. No offer to purchase these homes has been made to date. If this alternative were to be determined the least-damaging practicable alternative and pursued further, it is likely that funding for the buyout would be sought from federal sources and local matches.

2.3 ALTERNATIVE 3: PROPOSED ALTERNATIVE

The project includes the construction of a 48-acre floodwater detention basin in the chosen project area that will provide detention capacity for the developed areas of the Crane Bayou Watershed surrounding the Atlantic Main Canal tributary (Benefit Area) (see Figure 2). The property will be cleared of vegetation and a detention basin excavated approximately 5 feet deep with 4:1 side slopes and a 30-foot-wide, 3-foot-high perimeter maintenance berm. Four pilot channels will be excavated from each of the basin's corners and joined perpendicularly with a central pilot channel, which will facilitate drainage between flood events and channel stormwater flow. Three 6-foot-by-4-foot box culverts will be installed at intervals 400, 800, and 1350 feet south of Whitby Lane into the detention basin. The property will be seeded with a native grass mix. The majority of the material excavated will be hauled to the Port Arthur landfill.

The drainage improvements are intended to provide relief primarily from flood events with a 100-year or less frequency. A map of the Benefit Area is shown in Figure 2. Within this Benefit Area, the project will result in flood level reductions ranging from 0.05 feet to 2.86 feet.

2.5 COST COMPARISON OF ALTERNATIVES

No-Action Alternative:

Calculated avoided damages are $27,541,745.

Buyout Alternative:

Buyout of 213 Structures @ $179,000 each is $38,127,000.

Proposed Project Alternative:

The Project Cost is estimated to be $15,355,950. FEMA grant funds will be used in part for construction costs. No structures will be acquired or demolished as part of this project.

3.0 AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

3.1 PHYSICAL ENVIRONMENT

3.1.1 Geology, Seismicity, and Soils

Jefferson County is located on the Coastal Plain of the upper Texas coast, an area of little topographic relief. Characterized as a strandplain-chenier system, the general project area consists of extensive fresh to saltwater marshes, with coastal prairies and urban and industrial development on the higher chenier strandplains.

Geologically, the project area is underlain by the Beaumont Formation. The Beaumont Formation is one of the youngest formations occurring in Jefferson County and crops out extensively throughout the county. This formation is characterized by a relict depositional pattern of slightly elevated meandrous ridges separated by low-lying flats. The lows are old back swamps or floodplains. The Beaumont Formation originates from the fluvial deposits of Buffalo Bayou, Greens Bayou, Cedar Bayou, and the Brazos, San Jacinto and Trinity Rivers.

Soils observed on-site during field reconnaissance consisted of loams, loamy clays, and clays. According to the NRCS Web Soil Survey of Jefferson County, the property is composed of a single soil map unit, Urban Land Complex (URLX) (Figure 3). The Urban Land Complex is a miscellaneous soil area without documented soil characteristics (NRCS 2024).

A literature review indicated no known seismic faults on the site or in the nearby area (UT-BEG, 1992). Occasional earthquakes do occur within the Coastal Plain, but these are usually situated between San Antonio and Corpus Christi. Additionally, much seismic activity (earthquakes and subsidence) within the Coastal Plain has been attributed to well injections associated with oil and gas field operations and groundwater pumping. There is a very low probability of structure damage due to the rarity and lack of severity of seismic activity in the project area.

3.1.1.1 No-Action Alternative

The no-action alternative would not affect geology, seismicity, or soils.

3.1.1.2 Buy-out Alternative

Since properties that would be involved with the buyout alternative are already developed and disturbed, this alternative would not affect geology or seismicity. Minor soil disturbance would likely result from demolition of the structures, but would not be significant.

3.1.1.3 Proposed Alternative

Construction of the detention pond will result in the excavation of approximately 323,402 cubic yards of soil. The excavated material will be used in the creation of the perimeter berms. A 4:1 slope will allow for greater stabilization and less tendency to erode during storm events.

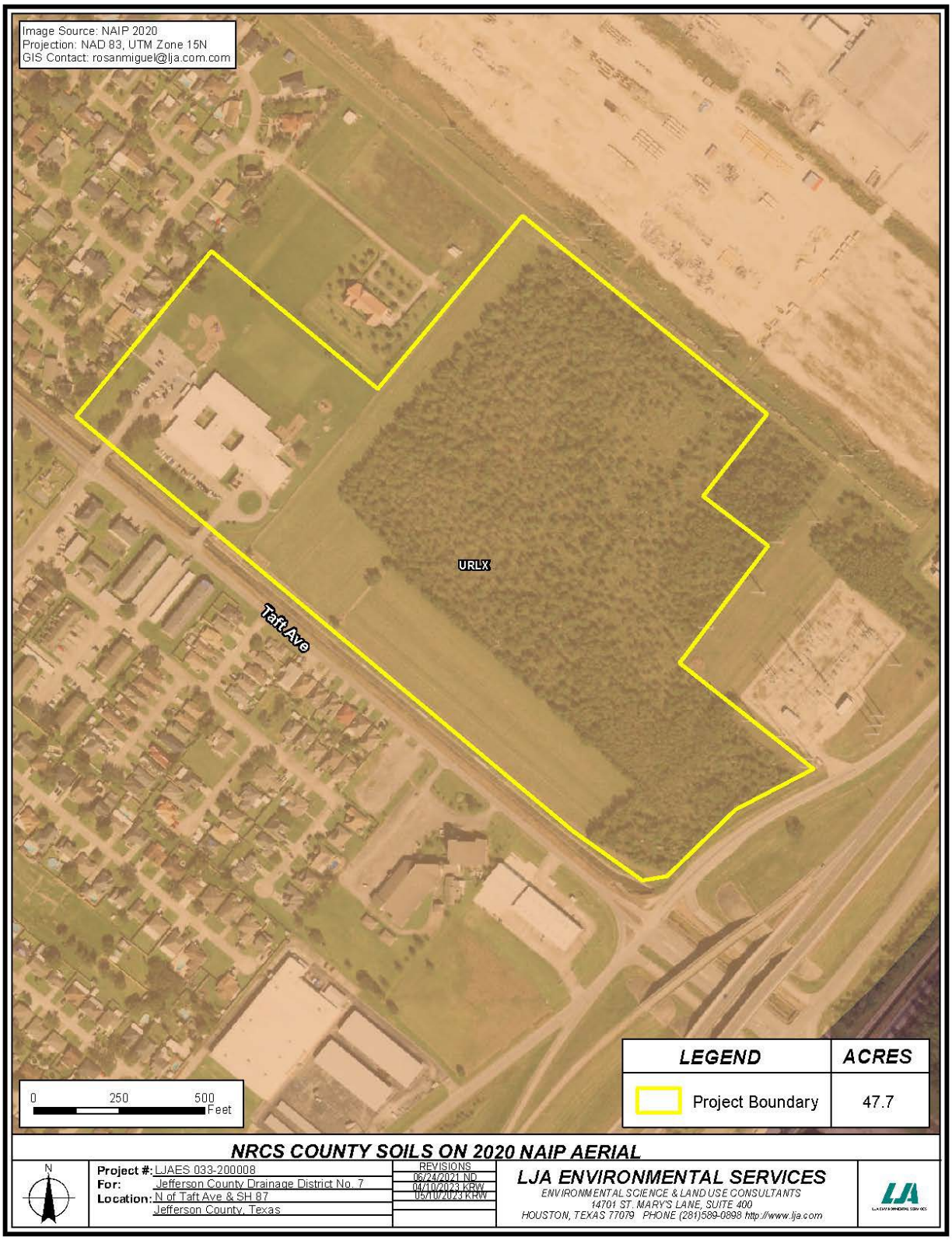

FIGURE 3: SOIL MAP

3.1.2 Water Resources and Water Quality

On-site topography is generally flat and approximately 0 to 5 feet above mean sea level (AMSL) (Figure 5) (USGS, 1993). The water surface in Atlantic Canal downstream of the project area is at or near sea level and is drained to Sabine Lake via a pump station in the hurricane protection levee surrounding the Port Arthur-Groves area.

The Chicot Aquifer (in Holocene- and Pleistocene-age sediments) and the Evangeline Aquifer (in Pliocene- and Miocene-age sediments) are the two primary sources of fresh (less than 1000 milligrams per liter dissolved solids concentration) groundwater in the Beaumont area and are part of the Gulf Coast aquifer system. The hydrogeologic units are laterally discontinuous fluvial-deltaic deposits of gravel, sand, silt, and clay that dip and thicken from northwest to southeast. Recharge to the aquifers generally occurs through the percolation of fresh water (precipitation, stream flow, lakes, etc.) along the aquifers' area of outcrop at the surface. The aquifers crop out in bands inland from and approximately parallel to the coast and become progressively more deeply buried and confined toward the coast. The Chicot, which comprises the youngest sediments, outcrops nearest to the coast, followed farther inland by the Evangeline outcrop. These outcrop areas are located a number of miles north and west of the project area. Groundwater movement is generally from the area of outcrop toward the southeast (down-dip) but may vary in the vicinity of natural discharge points (along stream banks) or artificial discharge points (groundwater wells).

LJA Environmental Services, LLC (LJAES) conducted an online search of water well records at both the Texas Water Development Board (TWDB) and the Texas Commission on Environmental Quality (TCEQ) for water wells located on and within a 0.5-mile radius from the project area. The records indicated no water wells on the project site and no water wells within a 0.5-mile radius of the project site. Based on water well drillers' records, water wells in the region draw water from the aquifer system, which yields water at depths greater than 60 feet in the vicinity of the project area (TWDB, 2024). No evidence of water wells was present within the project area during the field reconnaissance effort.

The results of this survey do not preclude the existence of an abandoned well. If a water well or casing is encountered during construction, work should be halted near the feature until TCEQ is contacted.

All abandoned wells must be capped or properly abandoned according to the Administrative Rules of the Texas Department of Licensing and Regulation, 16 Texas Administrative Code (TAC), Chapter 76, effective 3 January 1999. A plugging report must be submitted (by a licensed water well driller) to the Texas Department of Licensing and Regulation, Water Well Drillers Program, Austin, Texas. If a well is intended for use, it must comply with rules stipulated in 16 TAC §76.

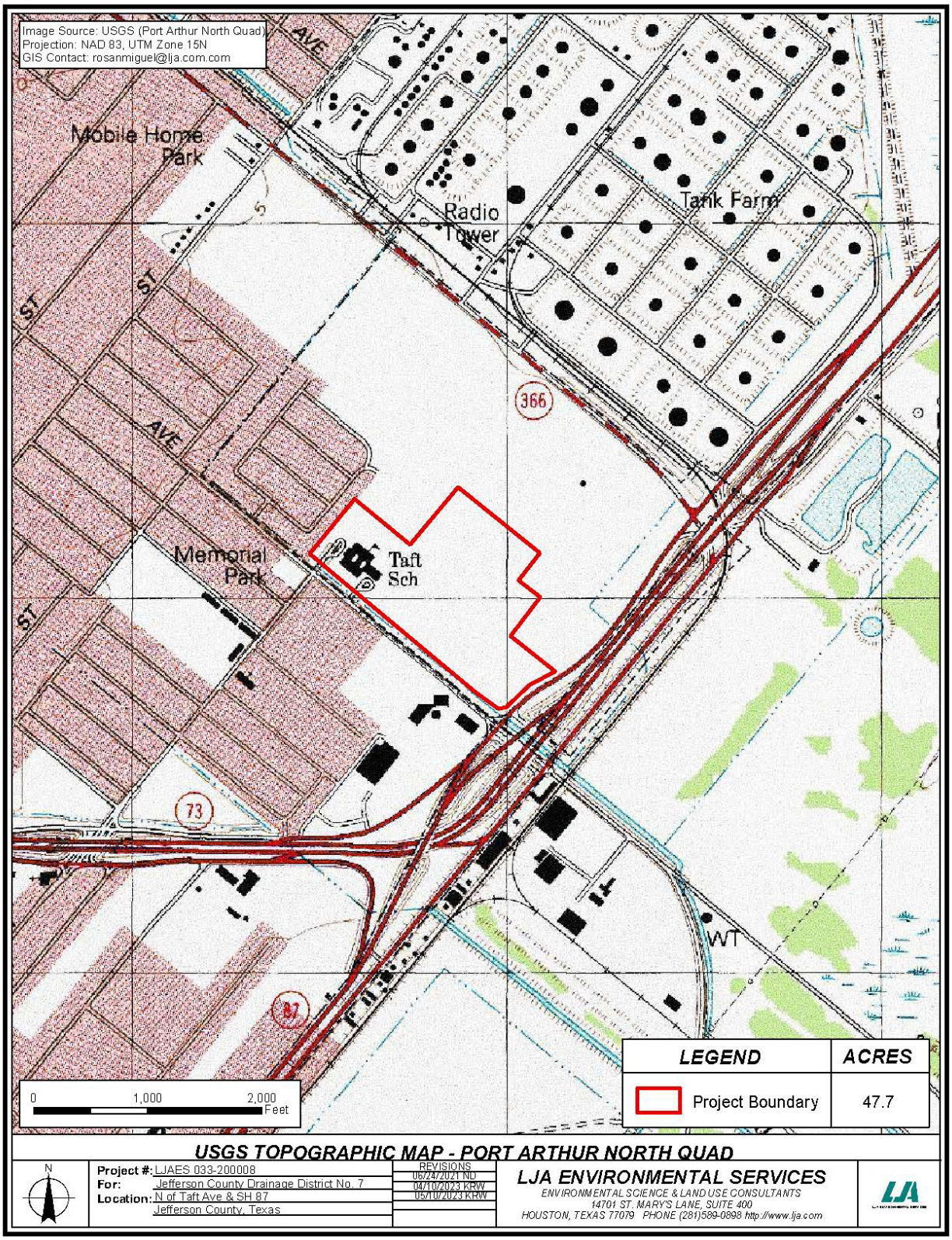

FIGURE 4: TOPOGRAPHIC MAP

The receiving body of water for the proposed project, Sabine Lake (Segment 2412OW), approximately 2.2 miles downstream of the project site, is listed by the TCEQ as a Category 5a segment with polychlorinated biphenyl oils (PCBs) in edible tissue (TCEQ, 2024). The TCEQ is required, under Section 303(d) of the federal Clean Water Act (CWA), to identify water bodies for which effluent limitations are not stringent enough to implement water quality standards. Category 5a segment water bodies do not meet applicable water quality standards or are threatened for one or more designated uses by one or more pollutants, and a review of the water quality standards for these water bodies are conducted before a Total Maximum Daily Load (TMDL) is scheduled. The TCEQ monitors the condition of the state's surface waters and assesses the status of water quality every two years. The TCEQ also develops a schedule identifying TMDLs that will be initiated in the next two years for priority impaired waters. The TCEQ submits this assessment to the US Environmental Protection Agency (EPA). The report is also published on the TCEQ website as the Texas Water Quality Inventory and 303(d) List (Inventory and List) (TCEQ, 2024). The Inventory assigns each assessed water body to one of five categories to provide information to the public, EPA, and internal agency programs about water quality status and management activities.

3.1.2.1 No-Action Alternative

The no-action alternative would not be expected to affect water resources or water quality.

3.1.2.2 Buyout Alternative

The buyout alternative would not be expected to affect water resources or water quality.

3.1.2.3 Proposed Alternative

The detention alternative could result in beneficial effects to downstream water quality by increasing flood storage, reducing velocity of floodwaters, and controlling sedimentation. The detention of floodwaters within a vegetated basin will also allow for increased nutrient and pollutant removal for floodwaters before they are discharged to downstream receiving waters.

As more than 5 acres of land disturbance will occur, the project will be subject to requirements of the Texas Pollutant Discharge Elimination System (TPDES), Construction Stormwater General Permit (TXR 150000). As such, JCDD7 will prepare a Stormwater Pollution Prevention Plan (SWPPP) and will file a Notice of Intent (NOI) with the TCEQ at least 48 hours prior to start of construction. Monitoring and maintenance of emplaced Best Management Practices (BMPs) for stormwater management will be conducted on a regular basis as prescribed by the TPDES General Permit. The proposed project would not adversely affect freshwater supply canals, sources, or water conservation projects in the region.

3.1.3 Floodplain Management (Executive Order 11988)

Executive Order 11988 mandates that all federal agencies shall provide leadership and take action to reduce the risk of flood loss; to minimize the impact of floods on human safety, health, and welfare; and to restore and preserve the natural and beneficial values served by floodplains in

carrying out their responsibilities for (1) acquiring, managing, and disposing of federal lands and facilities; (2) providing federally undertaken, financed, or assisted construction and improvements; and (3) conducting federal activities and programs affecting land use, including, but not limited to, water and related land resources planning, regulating, and licensing activities.

Before taking an action, each agency shall determine whether the proposed action will occur in a floodplain. For major federal actions significantly affecting the quality of the human environment, the evaluation would be included in any statement prepared under Section 102(2)(C) of the NEPA. The agency shall make a determination of the location of the floodplain based on the best available information.

There are many flood mitigation activities within areas of Jefferson County. The County has land use, building code, and permit authority over the land within its boundaries, including the authority to regulate development proposed within the special flood hazard areas designated on the county's Flood Insurance Rate Maps (FIRMs). The Applicant seeks to obtain a FEMA grant that would help reduce the flooding of existing structures in the Benefit Area.

According to FEMA FIRMs, the proposed detention pond is partially located within the FEMA 100-year Special Flood Hazard Area, Zone AH of Crane Bayou (Figure 6). The project is located on FIRM panel number 4854990015E, dated 17 April 1984. However, significant structure flooding occurs under moderate to heavy storm events due to the inadequacy of existing drainage conveyances, namely the Atlantic Main Canal. The proposed project would provide a flood reduction benefit to all residential areas within the benefit area.

3.1.3.1 No-Action Alternative

The no-action alternative would not adversely affect the Crane Bayou floodplain. However, the purpose of the proposed action to relieve flooding for numerous structures in East Groves would not be realized, and repetitive losses would continue to occur.

3.1.3.2 Buyout Alternative

This alternative would not adversely affect the 100- or 500-year floodplain. The buyout alternative would not significantly restore any natural or beneficial functions of the floodplain other than eliminating impervious cover in the area where structures would be removed. It would remove potential repetitive loss structures and infrastructure from areas that are subject to flooding.

3.1.3.3 Proposed Alternative

As mentioned previously, the Benefit Area suffers from frequent and severe structure flooding due to ponding of local runoff caused by an inadequate drainage system. Only a small portion of the Benefit Area and approximately half of the proposed detention basin are within the mapped Zone AH floodplain. The proposed detention basin is designed to decrease structure and infrastructure flooding in the Benefit Area without detrimental effects to the floodplain.

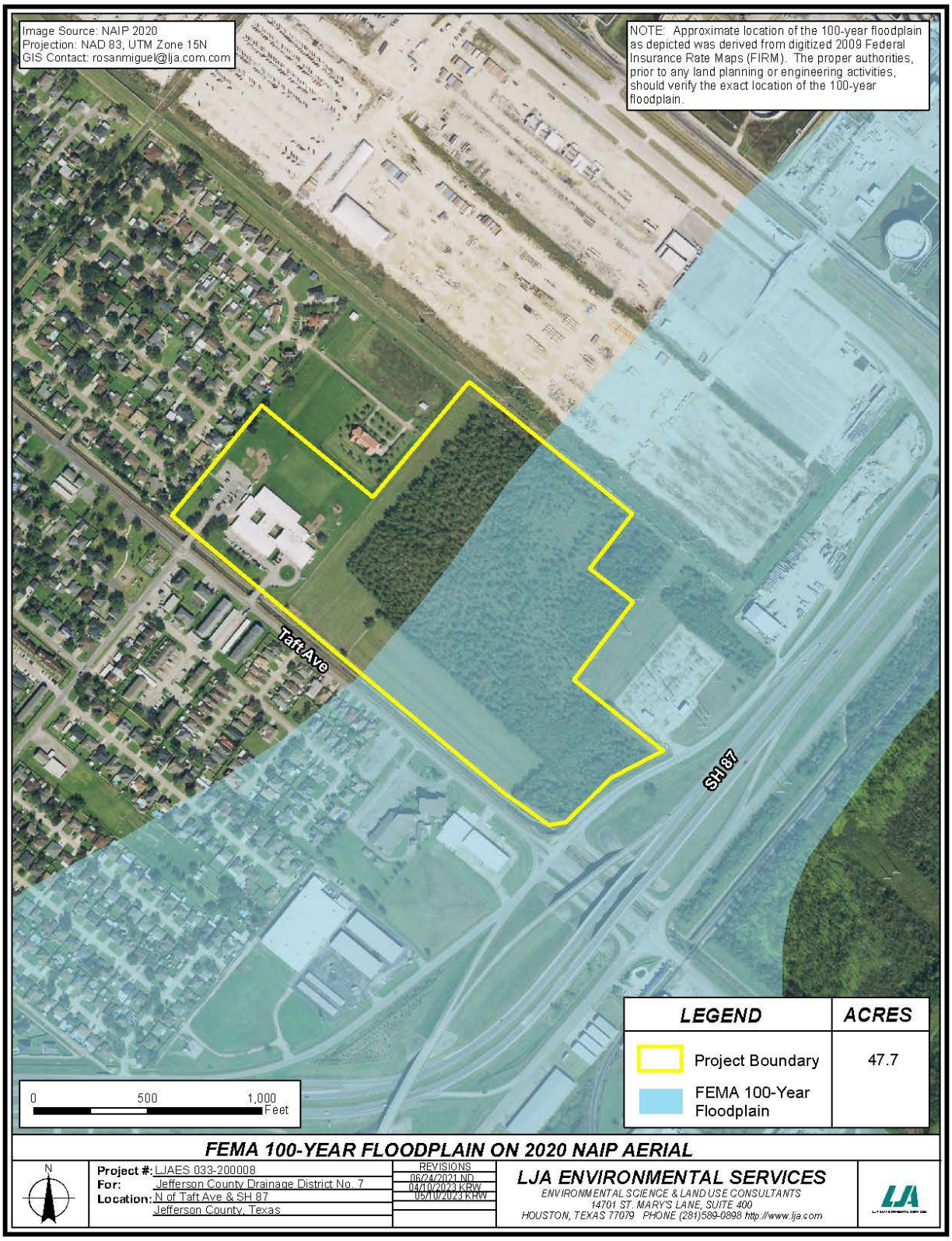

FIGURE 5: FEMA FLOOD MAP

The majority of the Benefit Area comprises existing residential and industrial development. Significant amounts of land transformation have occurred in this area in the past due to land development activities. Residential development has not previously been restricted due to flooding issues since this portion of Groves is not within the mapped floodplain. The project is not intended to provide for increased development potential in the area, but to reduce flooding hazards that currently exist for established residential development in the watershed. Therefore, it is not expected that this project will lead to other significant secondary impacts. The project has been analyzed using the FEMA Eight-Step Planning Process (Attachment 2). JCDD7 must coordinate with the local floodplain administrator, obtain required permits prior to initiating work, and comply with any conditions of the permit to ensure harm to and from the floodplain is minimized.

3.1.4 Air Resources and Air Quality

Jefferson County is located in extreme southeastern Texas and exhibits a subtropical climate. Extremely high summer temperatures are rare due to sea breezes from the Gulf of Mexico, and winter cold temperatures are generally moderate due to the county's southern location. Average temperatures range from 53.3 degrees Fahrenheit (°F) in January to 82.9°F in August. Relative humidity is high due to the nearby Gulf of Mexico.

Jefferson County is currently unclassified or in attainment of the National Air Quality Standards for all six criteria air pollutants. Therefore, general conformity rules for these standards do not apply. Two precursors to ozone formation are volatile organic compounds (VOCs) and nitrogen oxides (NOx). An increase of 100 tons per year for VOCs or NOx resulting from the proposed project could trigger general conformity analysis.

3.1.4.1 No-Action Alternative

This alternative would not be expected to adversely affect ambient air quality.

3.1.4.2 Buyout Alternative

Demolition of purchased structures would be expected to have the same or potentially greater temporary impacts to air quality from fugitive dust and equipment exhaust. This alternative would not have any expected long-term adverse effects on air quality.

3.1.4.3 Proposed Alternative

If dry weather conditions prevailed during construction, fugitive dust emissions could occur from equipment movements and earth-moving activities. Additionally, some minor and temporary exhaust emissions from equipment during construction could also occur, but the proposed project would have no long-term adverse effect on air quality. Emissions of VOCs or NOx would be temporary and well below the 100 tons per year trigger for general conformity analysis.

To reduce the temporary impacts, contractors will be required to water down construction areas as needed in order to mitigate excess dust. To reduce emissions, vehicle running times on-site will be kept to a minimum and engines will be properly maintained.

3.2 BIOLOGICAL ENVIRONMENT

3.2.1 Terrestrial and Aquatic Environment

The surrounding area is generally characterized as residential and industrial development. The westernmost portion of the project site is an abandoned and demolished school site while the southwestern portion along the Atlantic Main Canal has previously been used for disposal of excavated materials from widening and deepening of the canal and is largely vegetated with pasture grasses (Figure 7). The northern and eastern portions of the project area are covered in thick vegetation and have remained a largely undeveloped coastal flat since at least the mid-20th century, though periodic vegetation clearing appears to have been conducted. LJA field personnel conducted a field assessment of the project area in February 2021. In upland areas, the site is dominated by Chinese tallow (*Triadica sebifera*), groundseltree (*Baccharis halimifolia*), little bluestem (*Schizachyrium scoparium*), sawtooth blackberry (*Rubus argutus*), and poorjoe (*Hexasepalum teres*). In depressional wetland areas, the project area is dominated by Chinese tallow (*Triadica sebifera*), sand spikerush (*Eleocharis montevidensis*), southern wax myrtle (*Myrica cerifera*), savanna panicgrass (*Phanopyrum gymnocarpon*), and bushy bluestem (*Andropogon glomeratus*).

Limited and temporary aquatic habitat is provided in a few isolated, depressional wetland areas that are present within the project footprint (see Section 3.2.2).

Attachment 4 provides representative on-site photographs of the project area and surrounding Benefit Area.

3.2.1.1 No-Action Alternative

The no-action alternative would not adversely affect terrestrial or aquatic habitats.

3.2.1.2 Buyout Alternative

The buyout of existing structures would not adversely affect terrestrial or aquatic habitats. The areas where human structures would be demolished would become open space that would likely be utilized for recreational purposes.

3.2.1.3 Proposed Alternative

The proposed detention basin would involve ground disturbance totaling approximately 48 acres. The disturbed area will be revegetated with herbaceous species following construction. Wetland habitat would likely redevelop in the bottom of the detention basin. The detention basin would be subject to periodic mowing and brush control.

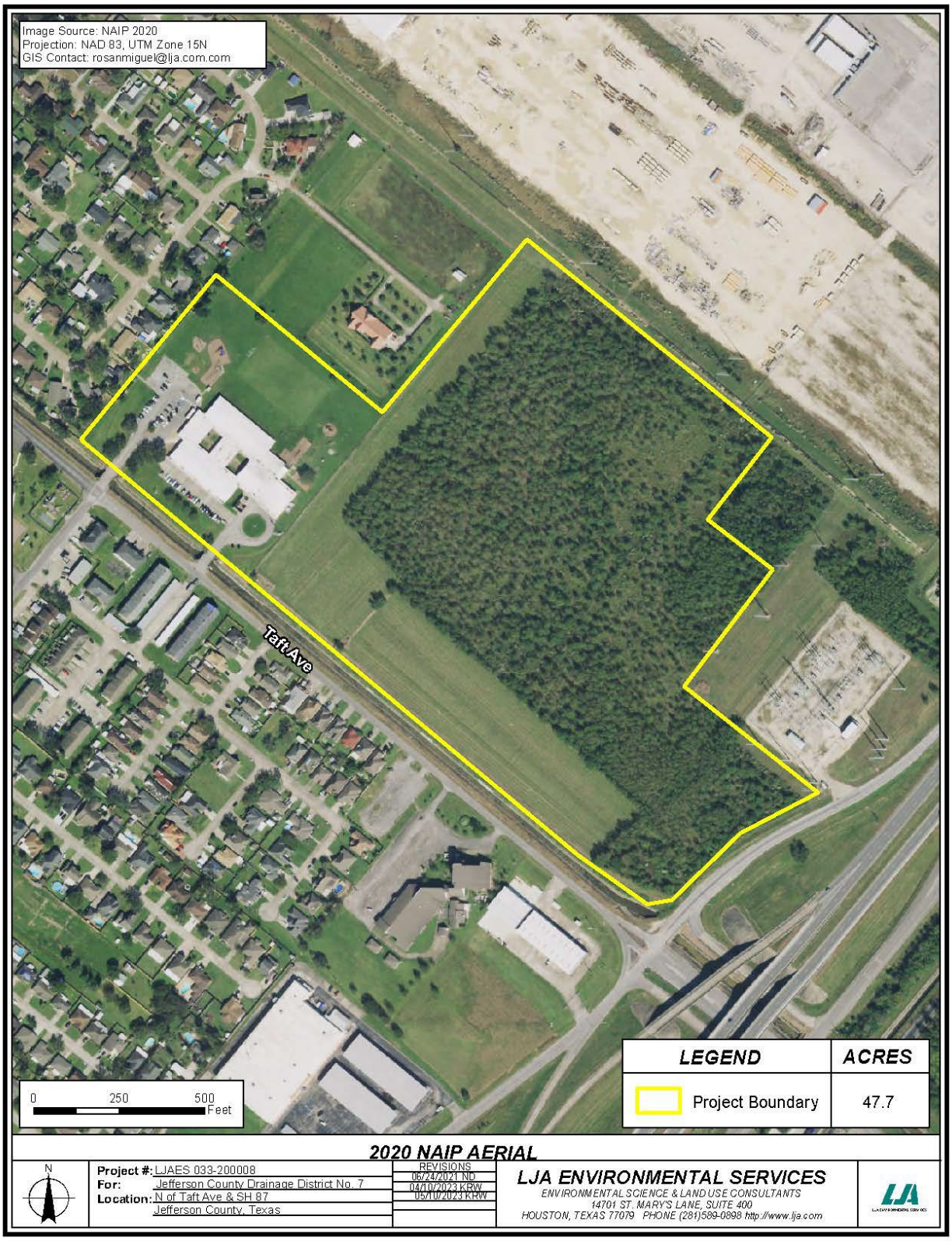

FIGURE 6: AERIAL PHOTOGRAPH

3.2.2 Wetlands (Executive Order 11990)

Executive Order 11990 provides that, in order to avoid to the extent possible the long- and short-term adverse impacts associated with the destruction or modification of wetlands and to avoid direct or indirect support of new construction in wetlands wherever there is a practicable alternative, all federal agencies shall provide leadership and shall take action to minimize the destruction, loss, or degradation of wetlands, and to preserve and enhance the natural and beneficial values of wetlands in carrying out the agency's responsibilities for (1) acquiring, managing, and disposing of federal lands and facilities; (2) providing federally undertaken, financed, or assisted construction and improvements; and (3) conducting federal activities and programs affecting land use, including, but not limited to, water and related land resources planning, regulating, and licensing activities. Under the CWA, the US Army Corps of Engineers (USACE) is the regulatory authority for the discharge of dredged or fill material into "waters of the United States" (WOTUS), including jurisdictional wetlands, pursuant to Section 404 of the CWA.

According to the Groves, Texas NWI map (USFWS, 2024), portions of the project area are mapped as containing palustrine, emergent wetlands (PEM1A). The Atlantic Canal is mapped as a riverine feature adjacent to the southwestern project boundary.

Following site visits by LJAES in February 2021 and January-March 2023, it was determined that approximately 16.13 acres of the project area would meet the technical criteria to be considered wetlands. No continuous surface connection from the wetlands on the site to the Atlantic Canal was observed. In accordance with jurisdictional determination methodology following the recent US Supreme Court decision in *Sackett vs EPA*, LJAES determined all of the identified wetlands to be non-jurisdictional under Section 404 of the CWA (Figure 8).

LJAES requested an Approved Jurisdictional Determination from the USACE Galveston District (SWG 2021-00829) (Attachment 5). The USACE responded with a verification of non-jurisdiction for all on-site wetlands on 7 May 2024 (Attachment 5).

3.2.2.1 No-Action Alternative

The no-action alternative would not adversely affect wetlands or other WOTUS.

3.2.2.2 Buyout Alternative

The buyout of existing structures would not adversely affect wetlands or other WOTUS.

3.2.2.3 Proposed Alternative

Approximately 16.13 acres of non-jurisdictional wetlands within the project area will be excavated for the construction of the proposed detention pond. No permit from the USACE is anticipated to be required. JCDD7 will ensure that BMPs are implemented to prevent erosion and sedimentation and avoid other wetlands adjacent to the project area. These BMPs include equipment storage and staging of construction materials to prevent erosion and sedimentation to ensure that impacts to wetlands are avoided and minimized to the greatest extent practicable per

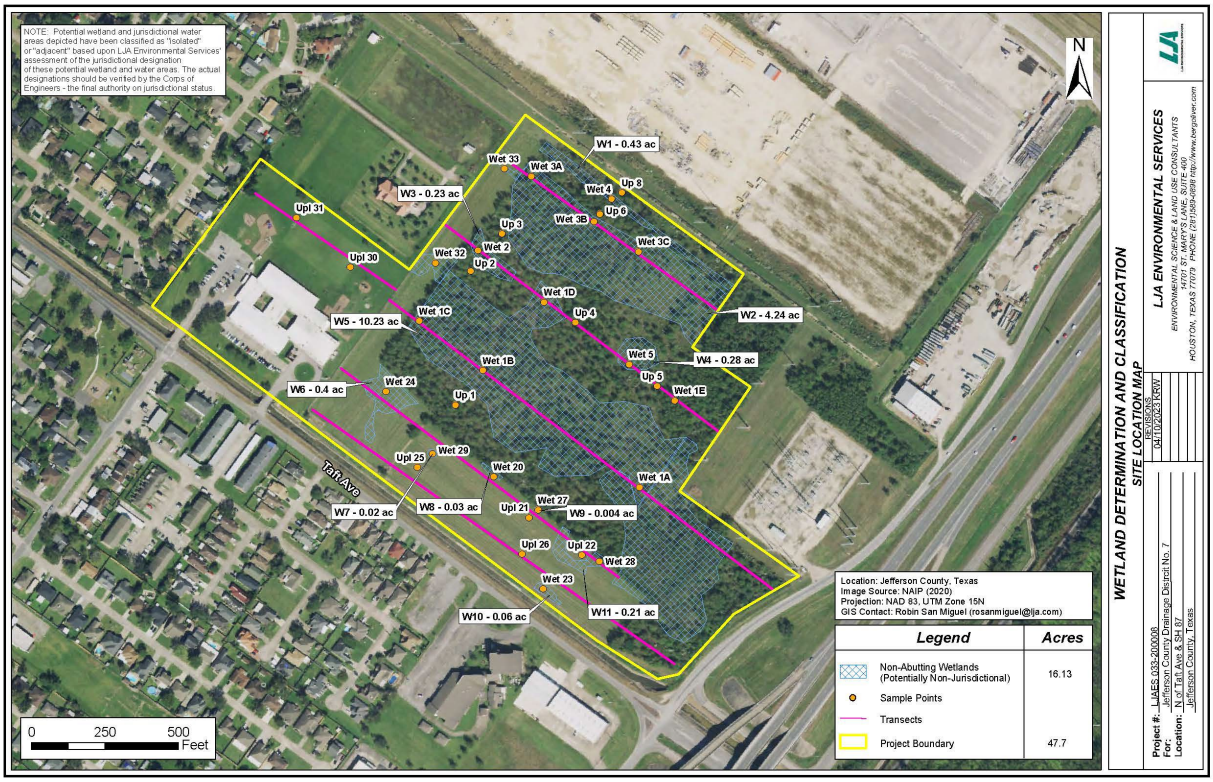

FIGURE 7: JURISDICTIONAL DETERMINATION MAP

the CWA and Executive Order 11990. The project has been analyzed using the FEMA Eight-Step Planning Process (Attachment 2).

3.2.3 Threatened or Endangered Species and Critical Habitat

According to the US Fish and Wildlife Service (USFWS), Information for Planning and Consultation (IPaC), federally listed threatened or endangered (T/E) species of potential occurrence in Jefferson County include the eastern black rail (*Laterallus jamaicensis*), piping plover (*Charadrius melodus*), rufa red knot (C*alidris canutus rufa*), whooping crane (*Grus americana*), green sea turtle (*Chelonia mydas*), Atlantic hawksbill sea turtle (*Eretmochelys imbricata*), Kemp's ridley sea turtle (*Lepidochelys kempii*), leatherback sea turtle (*Dermochelys coriacea*), and loggerhead sea turtle (*Caretta caretta*) (USFWS, 2023). The USFWS additionally lists the tricolored bat (*Perimyotis subflavus*) and the monarch butterfly (*Danaus plexipus*) as proposed for listing as endangered and as threatened, respectively. There is no designated critical habitat for any listed species within this portion of Jefferson County.

Birds

Piping plover habitat in Texas consists of sandy beaches and lakeshores that provide marine worms, flies, beetles, spiders, crustaceans, mollusks, and other small marine invertebrates during the over-wintering portion of their migration. None have been reported from the project area, and no suitable habitat is present.

The red knot has similar distribution and habitat preferences to the piping plover. No red knots have been reported in the project vicinity and suitable habitat is not present.

The eastern black rail inhabits fresh- and saltwater marshes and wet meadows. The project area does not contain marshes or wet meadows that would typically be associated with the species; therefore, the species would not be expected to be impacted by the project as currently proposed.

The whooping crane similarly utilizes marshes and agricultural fields along the Texas coast during winter migration. While the whooping crane primarily occurs on the middle Texas coast, it has occasionally been seen in Jefferson County. The whooping crane would not be expected to be impacted by the project.

Sea Turtles

All five federally listed sea turtle species are known to occur sporadically along the Texas Coast in bays and along the Gulf shore. Sea turtles do not occur upstream of saltwater influence and would not be affected by the proposed project.

Proposed Species

The tricolored bat and the monarch butterfly are currently listed as proposed species.

The tricolored bat occurs in forests, woodlands, and riparian areas. Most foraging occurs in riparian areas. Caves are important to this species. Roosts probably occur in tree foliage, caves, mines, and rock crevices, as well as man-made features such as bridges, culverts, and abandoned buildings. Potentially suitable woodland habitat for the tricolored bat was observed within the project area. Based on guidance from the USFWS, acoustic surveys for the bats have been conducted within the project area to determine the presence or probable absence of the bat. The acoustic survey had a detection preliminarily determined to be tricolored bats using computer software. However, after further manual review by qualified bat biologists conducting the survey, it was determined these detections were not tri colored bats. Therefore, FEMA has interpreted the survey findings as negative for tri colored bat presence in the project area. The report of the survey was provided to the USFWS for review and concurrence. USFWS accepted the survey findings on January 28, 2025 (Attachment 6).

The monarch butterfly's preferred forage species, milkweed (*Asclepias* spp.), was not observed in the project area during the site reconnaissance, and impacts to the proposed species are not expected to occur as a result of the proposed project.

3.2.3.1 No-Action Alternative

No listed species or their supporting habitats are present in the project area; therefore, the no-action alternative would not affect listed species.

3.2.3.2 Buy-Out Alternative

No listed species or their supporting habitats are present in the project area; therefore, the no-action alternative would not affect listed species.

3.2.3.3 Proposed Alternative

Based on a review of the species, habitat requirements, the scope of the proposed project, acoustic surveys, and USFWS input, FEMA has determined that the proposed alternative will have no effect on listed or proposed species.

Critical habitat is not present within the project area; therefore, the proposed alternative will not adversely modify any critical habitat.

The USFWS has been consulted on the proposed project overall (Attachment 3 and 6) and in relation to the acoustic survey for the tri colored bat. The USFWS responded on January 28, 2025 .

3.2.4 Coastal Zone Management

The project is located within the Coastal Zone Management (CZM) boundary of Texas (Figure 9). Correspondence has been provided to the Texas General Land Office (GLO) for coastal zone consistency (Attachment 3). The GLO has responded that GLO does not currently have any listed federal financial assistance activities, so a federal consistency review is not required (Attachment 3).

3.3 HAZARDOUS MATERIALS

LJAES commissioned Environmental Risk Information Services (ERIS) of Austin, Texas, to review state and federal agency records required by American Society for Testing and Materials (ASTM) Practice E1527-21. ERIS conducted its data search using minimum search distances outlined in the ASTM standard (ASTM, 2021).

ERIS found 44 records within the ASTM-prescribed search distances, including numerous records of storage and use of hazardous substances in the vicinity of the project area, primarily at commercial and industrial facilities along SH 87/73 east of the project area. Records also indicated several instances of spills or leaking storage tanks at several locations. At least one incident reported possible groundwater contamination, but with no identified sensitive receptors. The potential for soil or groundwater contamination in the project footprint is possible but deemed low based on available records.

Railroad Commission of Texas (RRC) records were investigated to determine the presence of active natural gas, crude oil, or refined product pipelines, as well as oil or gas wells that may exist on or within 1000 feet from the project site. The records reviewed did not indicate the presence of wells or pipelines within 1000 feet of the project site (RRC, 2024).

FIGURE 8: PROJECT IN RELATION TO THE COASTAL ZONE OF TEXAS

3.3.1 No-Action Alternative

The no-action alternative would not contribute to potential downstream pollution as a result of any identified sources of pollution in the project area.

3.3.2 Buyout Alternative

The buyout and demolition of structures in the Benefit Area has the potential to encounter and potentially release asbestos, lead-based paint, and other potentially hazardous household, lawn, or agricultural chemicals that might be stored on these properties into the environment.

3.3.3 Proposed Alternative

The proposed alternative would not contribute to potential downstream pollution as a result of any identified sources of pollution in the project area. Unusable equipment, debris and material, or any potential soil contamination that may be discovered during the construction process shall be disposed of in an approved manner and location. In the event significant items (or evidence thereof) are discovered during implementation of the project, Applicant shall handle, manage, and

dispose of petroleum products, hazardous materials and toxic waste in accordance with the 1requirements and to the satisfaction of the governing local, state and federal agencies.

3.4 SOCIOECONOMICS

US Census Bureau (USCB) estimates for 2023 indicate a population of 251,496 for Jefferson County (USCB, 2024). A demographic profile of the area shows that approximately 37.4% of the population is reported as white alone, 34.5% as Black, 23.7% as Hispanic, and 4.4% as Other. The project is not expected to affect the population of the area.

Local employment in Jefferson County is dominated by construction, with retail, industrial, healthcare, and education occupations also being common. The median household income is reported as $57,294 in 2022 dollars, approximately $17,286 less than the US average (USCB, 2024).

3.4.1 Zoning and Land Use

The project site is within the city limits of Groves. Residential, commercial, and industrial land uses are common in the area. The proposed project will be in open space and is not expected to be affected by zoning regulations.

3.4.2 Visual Resources

The current project area is largely undeveloped land and predominantly surrounded by industrial and residential development in Groves. The resulting project will be in open space, similar to the existing condition.

3.4.3 Noise

The current project area is undeveloped land and predominantly surrounded by industrial and residential development in Groves. Existing noise is generally generated by traffic on SH 87/73 and developed properties in Groves. The noise level is generally low.

3.4.4 Public Services and Utilities

Public services and utilities are provided to residents of the City of Groves by the City. Most City services are provided south and southwest of the project area. Taft Avenue and the surrounding residential roads are City-maintained roadways. Highways 87/73 are state-maintained.

1 *Executive Order 12898 ("Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations") and 14096 ("Revitalizing Our Nation's Commitment to Environmental Justice for All") were rescinded on January 20 and 21, 2025 by Executive Orders 14154 ("Unleashing American Energy") and 14173 ("Ending Illegal Discrimination and Restoring Merit-Based Opportunity").*

3.4.5 Traffic and Circulation

Major transportation arteries in the area include SH 87/73 and Taft Avenue. Temporary traffic diversions or congestion may occur during mobilization for the improvement construction, particularly on Taft Avenue.

3.4.6 Safety and Security

The project site is owned by JCDD7 and largely undeveloped. The District will fence the site for security and safety. Current safety issues in the area could include construction of traffic entering and exiting the project area from SH87/73 and Taft Avenue during mobilization.

3.4.7 No-Action Alternative

The no-action alternative will not provide relief of concerns for property and human health and welfare protection during flood events. Continued flooding of structures in the Benefit Area would continue to place a burden on local, state, and federal flood relief resources and would also continue to depress property values. The no-action alternative has a cost of more than $27 million in repetitive damages.

3.4.8 Buyout Alternative

The buyout alternative would remove 213 private structures from the local tax rolls with a substantial loss in future tax revenues to local governments and service providers. The buyout alternative would cost an estimated $38,127,000.

3.4.9 Proposed Alternative

The project yields $27,541,745 in benefits (avoided damages). The proposed project alternative has a total cost of nearly $15,355,950, which yields a benefit-cost ratio of 1.49.

The proposed project would not significantly affect or change current land uses. The area would remain as open space.

Visual resources (aesthetics) are not expected to be changed by the proposed drainage improvements. After construction, the area will have a similar open-space appearance to pre-construction conditions except for removal of the abandoned school, which has already occurred independent of this federal action.

The only anticipated significant noises associated with the project would be due to heavy equipment operation during the construction phase. Following construction activities, there would be no noise-generating activities at the site other than occasional mowing. To reduce noise levels during construction, construction activities will take place during normal business hours. No equipment or machinery will be installed at the proposed project site.

The proposed project is not expected to impede the access of nearby residents to any public services. There may be short-term traffic congestion due to movement of construction

equipment during mobilization on Taft Avenue and/or the SH 87/73 frontage road adjacent to the project site. Appropriate construction barricades and signage will be utilized during construction.

The proposed project is not expected to have adverse or disproportionate impacts on disadvantaged or low-income populations. The benefits of the proposed project are expected to be generally proportional to all residents in the Benefit Area based on existing elevation of structures. No existing residential properties or structures will be adversely affected by the project.

No significant safety or security issues are expected with the proposed project except for temporary traffic congestion on Taft Avenue and/or the SH 87/73 frontage roads adjacent to the project site during mobilization and demobilization for project construction. The appropriate signage and barriers will be in place prior to construction activities to alert pedestrians and motorists of project activities.

3.5 CULTURAL RESOURCES

Section 106 of the National Historic Preservation Act of 1966, as amended, requires federal agencies "to take into account" the "effect" that an undertaking would have on historic properties. Historic properties are those included in or eligible for inclusion in the National Register of Historic Places (NRHP) and may include archeological sites, buildings, structures, sites, objects, and districts. In accordance with the Advisory Council on Historic Preservation regulations pertaining to the protection of historic properties (36 CFR 800.4), federal agencies are required to identify and evaluate historic resources for NRHP eligibility and assess the effects that the undertaking would have on historic properties. Additionally, since the proposed improvements would be sponsored by a subdivision of the state, the project is also regulated by the Antiquities Code of Texas.

To assess the potential for intact, significant cultural resources within the Area of Potential Effect (APE) of the proposed project, LJAES conducted an archival review of the project area. The archival review consisted of a review of existing maps and records to determine the degree of prior disturbances in the area, the potential for intact cultural deposits, and the presence or absence of significant cultural resources. The APE for the project was the entirety of the extent of disturbance for the project (approximately 48 acres). The APE is shown on Figure 1.

3.5.1 Findings

Database Review

Background research conducted via the Texas Historical Commission's (THC's) Texas Archeological Sites Atlas (Atlas) online database indicated the presence of no previously recorded archeological sites or cemeteries within a 0.6-mile (1.0-kilometer [km]) perimeter of the project area (THC, 2024). Similarly, a review of the National Park Service's (NPS) National Register of Historic Places (NRHP) and National Historic Trails (NHT) Google Earth map layers indicated the presence of no historic properties listed in the NRHP or designated NHT segments within the review perimeter (NPS, 2024a and 2024b). No documented cultural resources, including any listed in the

NRHP and/or designated as State Antiquities Landmarks (SAL), are located within or immediately adjacent to the boundaries of the project area

The closest documented cultural resource to the project area is a historic-era shipwreck. This shipwreck (*Chief*; THC Shipwreck No. 1746) is located approximately 1.3 miles (2.1 km) southeast of the project area.

Previous Cultural Resources Investigations

Based on the Atlas database, no prior cultural resources assessments have been conducted within the limits of the current project area.

Map and Aerial Imagery Review

The earliest available topographic quadrangle maps for the location of the project area date to 1953, while the available aerial imagery dates back as early as 1930 (NETR 2024). The topographic quadrangle maps are generally lacking in detail until 1972 when Taft Elementary School becomes visible in the northwestern corner of the site and another small structure (potentially a barn) becomes visible in the southeastern corner of the site (NETR 2024). Taft Elementary School is currently still present on modern maps of the project area, while the smaller structure is no longer present on topographic quadrangle maps after 1993. The available aerial imagery depicts the area as undeveloped farmland until 1966 when Taft Elementary School and the noted smaller structure become visible on the site (ASCS 1966). Again, Taft Elementary School is still present on modern aerial imagery, while remnants of the smaller structure appear to still be present as late as 2012.

Eligibility Determination

The Taft Elementary School site was only recently added to the boundary of the JCDD7 detention basin project after the Port Neches-Groves Independent School District determined the school was a significant health and safety concern due to asbestos containing materials (ACMs) prevalent in the construction of the school. Asbestos abatement procedures were initiated in March and April of 2024 and have resulted in significant removal of much of the school structure that was determined to contain ACMs. The remnants of the structure represented a public liability hazard due to unstable brick walls and other pieces of the structure, so the entire structure has been demolished. The school property was donated to JCDD7 by the school district, and JCDD7 undertook the asbestos abatement with district funds not related to the FEMA grant for the detention basin.

The school is not considered an example of a notable design nor an excellent example of the International style. Rather, the buildings are constructed of very commonly used materials and employ stylistic characteristics popular at the time. The International style, with its lack of opulent details and use of common and relatively inexpensive materials, was a popular choice for educational facilities adhering to budgets and state funding. The school is not considered a particularly unique design, nor does it exhibit exceptional features of this style. Therefore, the school is considered not eligible for listing in the NRHP under Criteria C.

A preliminary site assessment was also conducted on the remnants of a dilapidated structure in the southeastern corner of the project area that once consisted of a shed or small barn that was constructed with dimensional lumber and roofed with corrugated metal sheets. A smaller, collapsed metal structure of unknown purpose was also noted adjacent to the collapsed shed/barn. Based on their dilapidated nature, the remnants of these structures would not be eligible for listing in the NRHP under Criteria C.

3.5.2 Native American Cultural/Religious Sites

In accordance with 36 CFR §800.2(c)(2)(i)(B), FEMA conducted tribal consultations with federally recognized Indian tribal governments with interest to exchange information, receive input, and consider their views on actions that have tribal implications. Consultation with the Alabama-Coushatta Tribe of Texas, Choctaw Nation, Kiowa Indian Tribe of Oklahoma (Kiowa Tribe), and Tonkawa Tribe of Indians of Oklahoma was conducted per 36 CFR §800.2(c)(2)(i)(B), dated January 22, 2025. Tribes were given 30 days to respond and or identify possible historic properties effected by this Project. The Alabama-Coushatta Tribe of Texas, Choctaw Nation, Kiowa Indian Tribe of Oklahoma (Kiowa Tribe), and Tonkawa Tribe of Indians of Oklahoma did not provide comments within 30 days or declined to comment.

3.5.3 No-Action Alternative

The no-action alternative would result in continued flooding of residential structures in the Benefit Area, some of which could be of historic age.

3.5.4 Buyout Alternative

The buyout alternative could potentially affect historic-age structures. Based on review of historical aerial photography, the residential communities in the Benefit Area southwest and northwest of the project site were developed beginning in the early 1950s and continuing into the 1970s. The structures to be bought out and demolished have not been evaluated for historic significance but are of historic age.

3.5.5 Proposed Alternative

The proposed project was initially coordinated with the State Historic Preservation Office (SHPO). Correspondence documenting coordination activities with the SHPO is included in Attachment 7. On June 17, 2024, the SHPO provided a preliminary response that stated the project would not affect historic properties but that an archeological survey of the project site would be required. An archeological survey was conducted on the site. Two historic sites were recorded, one being the Taft Elementary School and the other being a dilapidated barn structure. The THC-SHPO reviewed the report and concluded that neither site was eligible for inclusion on the NRHP. The THC-SHPO indicated the project could proceed as proposed.

Based on tribal coordination and consultation (Attachment 7), FEMA has determined that proposed project will not adversely affect traditional, religious, or culturally significant sites.

4.0 CUMULATIVE IMPACTS

An assessment of cumulative impacts takes into consideration the consequences that past, present, and reasonably foreseeable future projects have had, have, or will have on an ecosystem. Every project must be considered on its own merits. However, its impacts on the environment must be assessed in light of historical activity, along with anticipated future activities in the area. Although a particular project may constitute a minor impact in itself, the cumulative impacts that result from a large number of such projects could cause significant impairment of natural resources.

Cumulative impacts can result from many different activities, including the introduction of materials into the environment from multiple sources, repeated removal of materials or organisms from the environment, and repeated environmental changes over large areas and long periods. More complicated cumulative effects occur when stresses of different types combine to produce a single effect or accumulation of effects. Large, contiguous habitats can become fragmented, making it difficult for organisms to locate and maintain populations between disjunctive habitat fragments. Cumulative impacts may also occur when the timing of perturbations are so closely spaced that their effects overlap.

4.1 NO-ACTION ALTERNATIVE

The no-action alternative would not have any additive effects to other regional impacts to environmental resources. However, the continued flooding and cost of responses and damages in the Benefit Area would continue to contribute to regional financial and socioeconomic impacts.

4.2 BUYOUT ALTERNATIVE

The buyout alternative would not have many additive effects to other regional impacts to environmental resources. However, this alternative would temporarily affect regional air quality due to emissions of fugitive dust and equipment exhaust during demolition of purchased residences and other structures. The potential also exists for the encounter and release of toxic or harmful materials during the demolition process that could include asbestos, lead-based paint, and other potentially hazardous household or agricultural chemicals. These materials could temporarily affect air or surface water quality. These impacts would generally be short-term in nature.

The only long-term effect that would contribute to regional cumulative effects would be the loss of approximately 213 private properties from the local tax rolls, with a substantial loss in future tax revenues to local governments and service providers.

4.3 PROPOSED ALTERNATIVE

The primary purpose of the proposed project is to reduce potential future flood damage to existing structures in the Benefit Area. The project is not intended to provide for increased development potential in the area. Therefore, it is not expected that this project will lead to other significant secondary impacts.

The proposed drainage improvement project will have minimal impacts to natural resources. These impacts include temporary disturbance of 48 acres of largely undeveloped land containing approximately 16 acres of non-jurisdictional wetlands. A portion of the project area was previously developed as an elementary school, but the school was closed and demolished due to asbestos concerns. The majority of areas surrounding the project site include residential, commercial, and industrial development. The disturbed area would be revegetated and maintained as open space.

No prime farmland soils will be affected. The US Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) has been contacted to evaluate the proposed project for impacts to prime farmland soils under requirements of the Farmland Protection Policy Act (FPPA). The NRCS has determined that the project site is exempt from FPPA.

No cultural resources eligible for listing on the NRHP will be affected.

At this time, it is believed no threatened or endangered species will be affected by the project.

The proposed project does not have any other impacts that are of such significance as to add materially to cumulative impacts in the region. Impacts are summarized in Table 1.

5.0 PUBLIC PARTICIPATION

A Notice of Availability for the Draft EA (Attachment 8) will be published in the *Port Arthur News* and/or *Beaumont Enterprise* as well as on JCDD7's website (http://dd7.org/special-notices.asp) requesting public comments. The Draft EA will be made available on JCDD7's website, upon request electronically or in hard copy from FEMA, and at several physical locations within the project area as identified in the public notice. The public comment period will last for 30 days upon publication of the initial public notice. FEMA will consider and respond to all public comments in the Final EA. If no substantive comments are received, the Draft EA will become final and a FONSI will be issued for the project.

6.0 CONSULTATIONS

Consultation responses from resource agencies are attached, including the NRCS (Attachment 1), the USFWS, TPWD, TCEQ, TWDB, and GLO (Attachment 3 & 6), and the THC and Tribal Nations (Attachment 7).

7.0 LIST OF PREPARERS

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TABLE 1
SUMMARY OF ENVIRONMENTAL CONSEQUENCES AND MITIGATION MEASURES FOR THE PROPOSED GROVES DETENTION PROJECT

RESOURCE	ANTICIPATED EFFECTS	MITIGATION MEASURES
Geology, Seismicity, and Soils	Geology – No impacts anticipated. Seismicity – No impacts anticipated. Soils – No impacts to prime farmland soils.	No mitigation measures proposed.
Water Resources and Water Quality	Groundwater – No impacts anticipated. Surface water quality – minor, temporary effects. Developed water resources – No impacts anticipated.	JCDD7 will comply with conditions of Construction Stormwater General Permit TXR 150000, including preparation of SWPPP and implementing BMPs. All abandoned wells must be capped or properly abandoned according to the Administrative Rules of the Texas Department of Licensing and Regulation, 16 Texas Administrative Code (TAC), Chapter 76, effective 3 January 1999. A plugging report must be submitted (by a licensed water well driller) to the Texas Department of Licensing and Regulation, Water Well Drillers Program, Austin, Texas. If a well is intended for use, it must comply with rules stipulated in16 TAC §76.
Floodplains	No adverse impacts to the 100-year or 500-year floodplain.	JCDD7 must coordinate with the local floodplain administrator and obtain required permits prior to initiating work.
Air Quality	Temporary increase of fugitive dust and exhaust emissions during construction. No post-construction effects.	Contractors will be required to water down construction areas as needed in order to mitigate excess dust. Vehicle running times on site will be kept to a minimum and engines will be properly maintained.
Terrestrial and Aquatic Environment	Approximately 48 acres of largely open space will be temporarily disturbed.	Disturbed areas will be revegetated and remain as open space.
Wetlands	No jurisdictional wetlands or WOTUS will be adversely affected. Approximately 16 acres of non-jurisdictional wetlands will be excavated.	JCDD7 will ensure that BMPs are implemented to prevent erosion and sedimentation to surrounding, nearby or adjacent wetlands. This includes equipment storage and staging of construction to prevent erosion and sedimentation.
Threatened or Endangered Species and Critical Habitat	No effect.	No mitigation measures proposed.

Coastal Zone Management	No impacts anticipated.	Project is within the CZM Boundary. The GLO has noted that a consistency determination is not required.
Hazardous Materials	No impacts anticipated.	Unusable equipment, debris and material shall be disposed of in an approved manner and location. In the event soil contamination (or evidence thereof) is discovered during implementation of the project, Applicant shall handle, manage, and dispose of petroleum products, hazardous materials and toxic waste in accordance to the requirements and to the satisfaction of the governing local, state and federal agencies.
Zoning and Land Use	No impacts anticipated.	No mitigation measures proposed.
Visual Resources	No impacts anticipated.	No mitigation measures proposed.
Noise	Temporary construction equipment noise.	Construction activities will take place during normal business hours. Machinery operating at the proposed project site will meet all local, state, and federal noise regulations.
Public Services/Utilities	Public services – no impacts anticipated. Utilities – no impacts anticipated. Pipelines – no impacts anticipated.	No mitigation measures proposed.
Traffic and Circulation	Possible, short-duration traffic interruptions during construction mobilization.	Implement traffic control procedures as needed.
Safety and Security	No impacts anticipated.	The appropriate signage and barriers will be in place prior to construction activities to alert pedestrians and motorists of project activities.
Cultural Resources	No impacts anticipated	In the event that archeological deposits, including any Native American pottery, stone tools, bones, or human remains, are uncovered, the project shall be halted and the Applicant shall stop all work immediately in the vicinity of the discovery and take all reasonable measures to avoid or minimize harm to the finds. All archeological findings will be secured by JCDD7, and access to the sensitive area will be restricted by JCDD7. JCDD7 will inform FEMA immediately, and FEMA will consult with the SHPO. Work in sensitive areas shall not resume until consultation is completed and until FEMA determines

		that the appropriate measures have been taken to ensure complete project compliance with the National Historic Preservation Act (NHPA) and its implementing regulations.

8.0 REFERENCES

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ATTACHMENT 1

NRCS PRIME FARMLAND DETERMINATION

LJA ENVIRONMENTAL SERVICES

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12 June 2024

Natural Resources Conservation Service
US Department of Agriculture
101 South Main
Temple, Texas 76501-6624
chris.holle@usda.gov

RE: Proposed Jefferson County Drainage District No. 7 Project:
Groves Detention Pond Project
Located at Taft Avenue and HWY 87 in Groves,
Jefferson County, Texas

Dear Sirs:

Jefferson County Drainage District No. 7 (JCDD7) implements and maintains drainage projects throughout the District's 107.5 square mile area located in Jefferson County and includes the cities of Port Arthur, Groves, Nederland and Port Neches. JCDD7 also works with other jurisdictions to identify flood-prone areas, to encourage inclusion of flood-damage avoidance measures in land development. JCDD7 has applied to the Federal Emergency Management Agency (FEMA) for grant funding to establish a detention pond in the Crane Bayou watershed. The detention pond will give relief to storm water flowing through the Atlantic Main Channel to Crane Bayou pump station #7. Environmental reviews are required under the National Environmental Policy Act (NEPA) and the Council on Environmental Quality Guidelines, 40 CFR Parts 1500 to 1508. This coordination letter is being provided for your agency's' response in conformance with NEPA procedures.

The proposed detention pond project is designed to reduce excessive stormwater flow in the District's Atlantic Main Canal and will provide detention capacity for the developed areas of the Crane Bayou Watershed surrounding the Atlantic Main Canal. The Atlantic Main Canal is in the northeast portion of Jefferson County, running between the cities of Port Arthur and Groves. The canal is a concrete-lined tributary to Crane Bayou, with a catchment area of 1,890 acres, and ultimately outfalls into Sabine Lake through the JCDD7 Pump Station #7. The proposed detention pond will be constructed in the north corner of the SH 87 and Taft Avenue intersection and will include three (3) concrete outfall structures connecting to the Atlantic Main Canal. The proposed detention pond will have a surface area of approximately 48 acres. The project area is covered in thick vegetation and has remained a largely undeveloped coastal flat since at least the mid-20th century, though periodic vegetation clearing appears to have been conducted.

The project area is covered in thick vegetation and has remained a largely undeveloped coastal flat since at least the mid-20th century, though periodic vegetation clearing appears to have been conducted. Lands adjacent to the project area are heavily developed. Soils observed on site during field reconnaissance consist of loams, loamy clays, and clays. According to the NRCS Web Soil Survey of Jefferson County, the property is composed of a single soil map unit,

Urban Land Complex (UrlX). Urban Land (UrlX) is a miscellaneous soil area without documented soil characteristics.

Appendix 1 contains maps depicting the location of the proposed detention pond, including an aerial view of the project area, a topographic map of the project area, and a soils map of the project area. On-site photographs are provided in Appendix 2.

In accordance with NEPA and the Farmland Protection Policy Act (FPPA), your determination of impact significance to prime and other important farmlands is requested. Your prompt attention to this matter would be greatly appreciated, as your response is necessary to complete the application process for Jefferson County DD7's grant from FEMA.

Please call or email me should you have any questions concerning this project or if I can be of any further assistance.

Sincerely,
For LJA Environmental Services LLC

C. Lee Sherrod
Senior Project Director
(512)431-3562
lsherrod@lja.com

USDA United States Department of Agriculture

Farm Production and Conservation

Natural Resources Conservation Service

USDA NRCS
W.R. Poage Federal Building
101 South Main Street
Temple, TX 76501

June 20, 2024

LJA Environmental Services,
14701 St. Mary's Lane, Suite 400
Houston, Texas 77079

Attention: C. Lee Sherrod, Senior Project Director

Subject: Proposed Jefferson County Drainage District No. 7 Project:
Groves Detention Pond Project
Taft Avenue and HWY 87
Groves, Jefferson County, Texas
NEPA/FPPA Evaluation

We have reviewed the information provided in your correspondence dated June 12, 2024 concerning the Proposed Jefferson County Drainage District No. 7 Project: Groves Detention Pond Project. This review is part of the National Environmental Policy Act (NEPA) evaluation for the Federal Emergency Management Agency (FEMA). We have evaluated the proposed site as required by the Farmland Protection Policy Act (FPPA).

The project area does not contain Prime Farmland therefore it is exempt for that reason. The location is also considered, "land already in urban development" due to the existence of the site within a designated Urban Area. Due to these reasons, the project area has been determined to be exempt from FPPA provisions. We strongly encourage the use of acceptable erosion control methods during the construction of this project.

If you have further questions, please contact me at (254) 742-9951 or by email at chris.holle@usda.gov.

Sincerely,

Chris Holle

Chris Holle
USDA/NRCS

ATTACHMENT 2

FEMA EIGHT-STEP PLANNING ANALYSIS

Executive Order 11988 Floodplain Management
Executive Order 11990 Wetland Protection
Eight-Step Planning Process Summary
Groves Detention Basin Project

Step 1: Determine whether the Proposed Action is located in a wetland and/or the 100-year floodplain, or whether it has the potential to affect or be affected by a floodplain or wetland.	**Project Analysis:** According to FEMA Flood Insurance Rate Maps (FIRM), the Groves Detention Basin project area and benefit area are partially located within the 100-year floodplain. However, floodplain area is designated as Zone AH. The project is located on effective FIRM panel number 4854990015E, dated 17 April 1984 and preliminary FIRM panel 48245C0335E, dated 30 August 2012. The project will not affect any jurisdictional wetlands or waters of the US. Several non-jurisdictional wetlands may be excavated or filled for spoil placement around the detention basis.
Step 2: Notify public at earliest possible time of the intent to carry out an action in a floodplain or wetland and involve the affected and interested public in the decision-making.	**Project Analysis:** A disaster specific initial public notice for DR-4332-TX was issued on September 27, 2017 and included HMGP grant activities.
Step 3: Identify and evaluate practicable alternatives to locating the Proposed Action in a floodplain or wetland.	**Project Analysis:** The following alternatives were evaluated: Alternative 1: No Action. Alternative 2: Buyout of 213 flood prone existing structures. Alternative 3: Proposed Alternative – Groves Detention Basin Hazard Mitigation: The problem to be mitigated is repetitive structure flooding. The source of the flooding is Jefferson County Drainage District No. 7's Atlantic Main Canal. The open, concrete-lined channel and its associated road crossings are inadequate to convey flood flows without floodwater surface elevations reaching a point of entering homes in Groves, Texas.

	As part of FEMA's Hazard Mitigation Program, Alternative 3 would provide a cost-effective solution to the flooding problems with a benefit/cost ratio of 1.49.
Step 4: Identify the full range of potential direct or indirect impacts associated with the occupancy or modification of floodplains and wetlands and the potential direct and indirect support of floodplain and wetland development that could result from the Proposed Action.	**Project Analysis:** The No-Action Alternative would result in the continued flooding potential for approximately 213 structures in Groves, Texas. This alternative does not achieve the stated project purpose of providing flood relief and would have a continued repetitive loss of more than $27 million. Alternative 2, Buyout of Existing Structures, would cost nearly $38,127,000 million for the buyout of approximately 213 flood prone structures. This cost is more than twice that of the proposed action. Alternative 3, the Proposed Alternative, would have no adverse effects to the floodplain while mitigating flood problems in the benefit area. The project will not impact jurisdictional wetlands or waters of the US but will impact several non-jurisdictional wetlands. The project will not affect prime farmlands, significant cultural resources, jurisdictional wetlands, or significantly affect listed threatened or endangered species.
Step 5: Minimize the potential adverse impacts to work within floodplains and wetlands to be identified under Step 4; restore and preserve the natural and beneficial values served by wetlands.	**Project Analysis:** Several non-jurisdictional wetlands would be affected. BMPs would be implemented to avoid secondary impacts to adjacent wetlands. The bottom of the newly created detention basin would develop wetland characteristics and would function in a similar manner to the isolated non-jurisdictional wetlands that will be affected by the project.
Step 6: Re-evaluate the Proposed Action to determine 1) if it is still practicable in light of its exposure to flood hazards; 2) the extent to which it will aggravate the hazards to others; and 3) its potential to disrupt floodplain and wetland values.	**Project Analysis:** The Proposed Action remains practicable based on the fact that it will provide significant benefits to the benefit area without adverse effects to the floodplain. The project will not impact jurisdictional wetlands or waters of the US. Impacts to non-jurisdictional wetlands will be mitigated by re-development of wetlands in the bottom of the detention basin.
Step 7: If the agency decides to take an action in a floodplain or wetland, prepare and provide the public with a finding and explanation of any final decision that the floodplain or wetland is the	**Project Analysis:** Final floodplain public notice will be incorporated into the notice of availability for public review of the draft Environmental Assessment.

only practicable alternative. The explanation should include any relevant factors considered in the decision-making process.	
Step 8: Review the implementation and post-implementation phases of the Proposed Action to ensure that the requirements of the Executive Orders are fully implemented. Oversight responsibility shall be integrated into existing processes.	**Project Analysis:** This step is integrated into the NEPA process and FEMA project management and oversight functions.

ATTACHMENT 3

AGENCY CONSULTATION/LETTERS OF CONCURRENCE

LJA ENVIRONMENTAL SERVICES

Headquarters: 14701 St. Mary's Lane, Suite 400, Houston, Texas 77079
t 713.953.5200 LJAENVIRONMENTAL.com
Regional Field Offices: Arlington • Austin • Corpus Christi • McKinney

12 June 2024

Consistency Review Coordinator
Texas General Land Office
P. O. Box 12873
Austin, Texas 78711-2873
Federal Consistency <Federal.Consistency@GLO.TEXAS.GOV>

RE: Proposed Jefferson County Drainage District No. 7 Project:
Groves Detention Pond Project
Located at Taft Avenue and HWY 87 in Groves,
Jefferson County, Texas

Dear Sirs:

Jefferson County Drainage District No. 7 (JCDD7) implements and maintains drainage projects throughout the District's 107.5 square mile area located in Jefferson County and includes the cities of Port Arthur, Groves, Nederland and Port Neches. JCDD7 also works with other jurisdictions to identify flood-prone areas, to encourage inclusion of flood-damage avoidance measures in land development. JCDD7 has applied to the Federal Emergency Management Agency (FEMA) for grant funding to establish a detention pond in the Crane Bayou watershed. The detention pond will give relief to storm water flowing through the Atlantic Main Channel to Crane Bayou pump station #7. Environmental reviews are required under the National Environmental Policy Act (NEPA) and the Council on Environmental Quality Guidelines, 40 CFR Parts 1500 to 1508. This coordination letter is being provided for your agency's' response in conformance with NEPA procedures.

The proposed detention pond project is designed to reduce excessive stormwater flow in the District's Atlantic Main Canal and will provide detention capacity for the developed areas of the Crane Bayou Watershed surrounding the Atlantic Main Canal. The Atlantic Main Canal is in the northeast portion of Jefferson County, running between the cities of Port Arthur and Groves. The canal is a concrete-lined tributary to Crane Bayou, with a catchment area of 1,890 acres, and ultimately outfalls into Sabine Lake through the JCDD7 Pump Station #7. The proposed detention pond will be constructed in the north corner of the SH 87 and Taft Avenue intersection and will include three (3) concrete outfall structures connecting to the Atlantic Main Canal. The proposed detention pond will have a surface area of approximately 48 acres. The project area is covered in thick vegetation and has remained a largely undeveloped coastal flat since at least the mid-20th century, though periodic vegetation clearing appears to have been conducted.

Appendix 1 contains maps depicting the location of the proposed detention pond, including an aerial view of the project area, a topographic map, a flood hazard map, and a coastal zone map of the project area. On-site photographs are provided in Appendix 2.

LJA ENVIRONMENTAL SERVICES

Note that the project area is located within the FEMA 100-year Special Flood Hazard Area, Zone AH of Crane Bayou. Land use in the surrounding area is characterized by dense residential and industrial development. The project is located in the Coastal Zone of Texas. The site contains wetlands that have been determined non-jurisdictional by the U.S. Army Corps of Engineers (Appendix 3).

Please review the attached figures and information concerning the proposed project to determine if the project is consistent with your agency's environmental regulations or policies. Please respond by letter at your earliest convenience. Your prompt attention to this matter would be greatly appreciated, as your signed concurrence letter is necessary to complete the application for grant funding from FEMA.

Please call or email me should you have any questions concerning this project or if I can be of any further assistance.

Sincerely,
For LJA Environmental Services LLC

C. Lee Sherrod
Senior Project Director
(512)431-3562
lsherrod@lja.com

LJA ENVIRONMENTAL SERVICES

Headquarters: 14701 St. Mary's Lane, Suite 400, Houston, Texas 77079
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12 June 2024

Michelle Falgout, County Engineer
County Flood Plain Administrator
Jefferson County
1149 Pearl Street, 5th Floor
Beaumont, Texas 77701
Michelle.Falgout@jeffcotx.us

RE: Proposed Jefferson County Drainage District No. 7 Project:
Groves Detention Pond Project
Located at Taft Avenue and HWY 87 in Groves,
Jefferson County, Texas

Dear Michelle:

Jefferson County Drainage District No. 7 (JCDD7) implements and maintains drainage projects throughout the District's 107.5 square mile area located in Jefferson County and includes the cities of Port Arthur, Groves, Nederland and Port Neches. JCDD7 also works with other jurisdictions to identify flood-prone areas, to encourage inclusion of flood-damage avoidance measures in land development. JCDD7 has applied to the Federal Emergency Management Agency (FEMA) for grant funding to establish a detention pond in the Crane Bayou watershed. The detention pond will give relief to storm water flowing through the Atlantic Main Channel to Crane Bayou pump station #7. Environmental reviews are required under the National Environmental Policy Act (NEPA) and the Council on Environmental Quality Guidelines, 40 CFR Parts 1500 to 1508. This coordination letter is being provided for your agency's' response in conformance with NEPA procedures.

The proposed detention pond project is designed to reduce excessive stormwater flow in the District's Atlantic Main Canal and will provide detention capacity for the developed areas of the Crane Bayou Watershed surrounding the Atlantic Main Canal. The Atlantic Main Canal is in the northeast portion of Jefferson County, running between the cities of Port Arthur and Groves. The canal is a concrete-lined tributary to Crane Bayou, with a catchment area of 1,890 acres, and ultimately outfalls into Sabine Lake through the JCDD7 Pump Station #7. The proposed detention pond will be constructed in the north corner of the SH 87 and Taft Avenue intersection and will include three (3) concrete outfall structures connecting to the Atlantic Main Canal. The proposed detention pond will have a surface area of approximately 48 acres. The project area is covered in thick vegetation and has remained a largely undeveloped coastal flat since at least the mid-20th century, though periodic vegetation clearing appears to have been conducted.

Appendix 1 contains maps depicting the location of the proposed detention pond, including an aerial view of the project area, a topographic map of the project area, and a FEMA flood map of the project area. Note that the project area is located within the FEMA 100-year Special Flood Hazard Area, Zone AH of Crane Bayou. Land use in the surrounding area is characterized by dense residential and industrial development. On-site photographs are provided in Appendix 2.

Please review the attached figures and information concerning the proposed project to determine if the project is likely to adversely impact a floodplain or floodway. Your prompt attention to this matter would be greatly appreciated, as your signed concurrence letter is necessary to complete the application for grant funding from FEMA.

Should you require more detailed hydraulic information, please contact Mr. Toby Davis at JCDD7. Please call or email me if I can be of any further assistance.

Sincerely,
For LJA Environmental Services LLC

C. Lee Sherrod
Senior Project Director
(512)431-3562
lsherrod@lja.com

LJA ENVIRONMENTAL SERVICES

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12 June 2024

Intergovernmental Relations Division
Texas Commission on Environmental Quality
12100 Park 35 Circle
Austin, Texas 78753
NEPA@tceq.texas.gov

RE: Proposed Jefferson County Drainage District No. 7 Project:
Groves Detention Pond Project
Located at Taft Avenue and HWY 87 in Groves,
Jefferson County, Texas

Dear Sirs:

Jefferson County Drainage District No. 7 (JCDD7) implements and maintains drainage projects throughout the District's 107.5 square mile area located in Jefferson County and includes the cities of Port Arthur, Groves, Nederland and Port Neches. JCDD7 also works with other jurisdictions to identify flood-prone areas, to encourage inclusion of flood-damage avoidance measures in land development. JCDD7 has applied to the Federal Emergency Management Agency (FEMA) for grant funding to establish a detention pond in the Crane Bayou watershed. The detention pond will give relief to storm water flowing through the Atlantic Main Channel to Crane Bayou pump station #7. Environmental reviews are required under the National Environmental Policy Act (NEPA) and the Council on Environmental Quality Guidelines, 40 CFR Parts 1500 to 1508. This coordination letter is being provided for your agency's' response in conformance with NEPA procedures.

The proposed detention pond project is designed to reduce excessive stormwater flow in the District's Atlantic Main Canal and will provide detention capacity for the developed areas of the Crane Bayou Watershed surrounding the Atlantic Main Canal. The Atlantic Main Canal is in the northeast portion of Jefferson County, running between the cities of Port Arthur and Groves. The canal is a concrete-lined tributary to Crane Bayou, with a catchment area of 1,890 acres, and ultimately outfalls into Sabine Lake through the JCDD7 Pump Station #7. The proposed detention pond will be constructed in the north corner of the SH 87 and Taft Avenue intersection and will include three (3) concrete outfall structures connecting to the Atlantic Main Canal. The proposed detention pond will have a surface area of approximately 48 acres. The project area is covered in thick vegetation and has remained a largely undeveloped coastal flat since at least the mid-20th century, though periodic vegetation clearing appears to have been conducted.

Appendix 1 contains maps depicting the location of the proposed detention pond, including an aerial view of the project area, a topographic map of the project area, and a FEMA flood map of the project area. Note that the project area is located within the FEMA 100-year Special Flood Hazard Area, Zone AH of Crane Bayou. Land use in the surrounding area is characterized by dense residential and industrial development. On-site photographs are provided in Appendix 2.

LJA ENVIRONMENTAL SERVICES

Please review the attached figures and information concerning the proposed project to determine if the project is consistent with your agency's environmental regulations or policies. Please respond by letter at your earliest convenience. Your prompt attention to this matter would be greatly appreciated, as your signed concurrence letter is necessary to complete the application for grant funding from FEMA.

Please call or email me should you have any questions concerning this project or if I can be of any further assistance.

Sincerely,
For LJA Environmental Services LLC

C. Lee Sherrod
Senior Project Director
(512)431-3562
lsherrod@lja.com

LJA ENVIRONMENTAL SERVICES

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18 June 2024

Rachel Lange
Texas Parks and Wildlife Department
Wildlife Habitat Assessment Program
4200 Smith School Road
Austin, Texas 78744
Rachel Lange <Rachel.Lange@tpwd.texas.gov>

RE: Proposed Jefferson County Drainage District No. 7 Project:
Groves Detention Pond Project
Located at Taft Avenue and HWY 87 in Groves,
Jefferson County, Texas

Dear Rachel:

Jefferson County Drainage District No. 7 (JCDD7) implements and maintains drainage projects throughout the District's 107.5 square mile area located in Jefferson County and includes the cities of Port Arthur, Groves, Nederland and Port Neches. JCDD7 also works with other jurisdictions to identify flood-prone areas, to encourage inclusion of flood-damage avoidance measures in land development. JCDD7 has applied to the Federal Emergency Management Agency (FEMA) for grant funding to establish a detention pond in the Crane Bayou watershed. The detention pond will give relief to storm water flowing through the Atlantic Main Channel to Crane Bayou pump station #7. Environmental reviews are required under the National Environmental Policy Act (NEPA) and the Council on Environmental Quality Guidelines, 40 CFR Parts 1500 to 1508. This coordination letter is being provided for your agency's' response in conformance with NEPA procedures.

The proposed detention pond project is designed to reduce excessive stormwater flow in the District's Atlantic Main Canal and will provide detention capacity for the developed areas of the Crane Bayou Watershed surrounding the Atlantic Main Canal. The Atlantic Main Canal is in the northeast portion of Jefferson County, running between the cities of Port Arthur and Groves. The canal is a concrete-lined tributary to Crane Bayou, with a catchment area of 1,890 acres, and ultimately outfalls into Sabine Lake through the JCDD7 Pump Station #7. The proposed detention pond will be constructed in the north corner of the SH 87 and Taft Avenue intersection and will include three (3) concrete outfall structures connecting to the Atlantic Main Canal. The proposed detention pond will have a surface area of approximately 48 acres. The project area is covered in thick vegetation and has remained a largely undeveloped coastal flat since at least the mid-20th century, though periodic vegetation clearing appears to have been conducted.

Appendix 1 contains maps depicting the location of the proposed detention pond, including an aerial view of the project area, and a topographic map of the project area. Land use in surrounding area is characterized by dense residential and industrial development. On-site photographs are provided in Appendix 2.

The project area is covered in thick vegetation and has remained a largely undeveloped coastal flat since at least the mid-20th century, though periodic vegetation clearing appears to have been conducted. LJA field personnel conducted a field assessment of the property in February of 2021. In upland areas, the subject property is dominated by Chinese tallow (*Triadica sebifera*), groundsel tree (*Baccharis halimifolia*), little bluestem (*Schizachyrium scoparium*), sawtooth blackberry (*Rubus argutus*), and poorjoe (*Hexasepalum teres*). In depressional wetland areas, the subject property is dominated by Chinese tallow (*Triadica sebifera*), sand spike-rush (*Eleocharis montevidensis*), southern wax myrtle (*Myrica cerifera*), savannah-panicgrass (*Phanopyrum gymnocarpon*), and bushy bluestem (*Andropogon glomeratus*).

LJAES observed no federally listed T/E species or potential habitats on or within the immediate vicinity of the project area. Additionally, desktop review indicates no federally designated critical habitat is present in the project area. Please refer to Appendix 3 for the Information for Planning and Consultation (IPAC) report of federally listed species known to occur within Jefferson County.

Please review the attached figures and information concerning the proposed project to determine if the project is consistent with your agency's environmental regulations or policies. Please respond by letter at your earliest convenience. Your prompt attention to this matter would be greatly appreciated, as your response is necessary to complete the application for grant funding from FEMA.

Please call or email me should you have any questions concerning this project or if I can be of any further assistance.

Sincerely,
For LJA Environmental Services LLC

C. Lee Sherrod
Senior Project Director
(512)431-3562
lsherrod@lja.com

LJA ENVIRONMENTAL SERVICES

Headquarters: 14701 St. Mary's Lane, Suite 400, Houston, Texas 77079
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Regional Field Offices: Arlington • Austin • Corpus Christi • McKinney

12 June 2024

NFIP State Coordinator
Texas Water Development Board
P. O. Box 13231
Austin, Texas 78711-3231
Belle.gonzalez@twdb.texas.gov

RE: Proposed Jefferson County Drainage District No. 7 Project:
Groves Detention Pond Project
Located at Taft Avenue and HWY 87 in Groves,
Jefferson County, Texas

Dear Sirs:

Jefferson County Drainage District No. 7 (JCDD7) implements and maintains drainage projects throughout the District's 107.5 square mile area located in Jefferson County and includes the cities of Port Arthur, Groves, Nederland and Port Neches. JCDD7 also works with other jurisdictions to identify flood-prone areas, to encourage inclusion of flood-damage avoidance measures in land development. JCDD7 has applied to the Federal Emergency Management Agency (FEMA) for grant funding to establish a detention pond in the Crane Bayou watershed. The detention pond will give relief to storm water flowing through the Atlantic Main Channel to Crane Bayou pump station #7. Environmental reviews are required under the National Environmental Policy Act (NEPA) and the Council on Environmental Quality Guidelines, 40 CFR Parts 1500 to 1508. This coordination letter is being provided for your agency's' response in conformance with NEPA procedures.

The proposed detention pond project is designed to reduce excessive stormwater flow in the District's Atlantic Main Canal and will provide detention capacity for the developed areas of the Crane Bayou Watershed surrounding the Atlantic Main Canal. The Atlantic Main Canal is in the northeast portion of Jefferson County, running between the cities of Port Arthur and Groves. The canal is a concrete-lined tributary to Crane Bayou, with a catchment area of 1,890 acres, and ultimately outfalls into Sabine Lake through the JCDD7 Pump Station #7. The proposed detention pond will be constructed in the north corner of the SH 87 and Taft Avenue intersection and will include three (3) concrete outfall structures connecting to the Atlantic Main Canal. The proposed detention pond will have a surface area of approximately 48 acres. The project area is covered in thick vegetation and has remained a largely undeveloped coastal flat since at least the mid-20th century, though periodic vegetation clearing appears to have been conducted.

Appendix 1 contains maps depicting the location of the proposed detention pond, including an aerial view of the project area, a topographic map of the project area, and a FEMA flood map of the project area. Note that the project area is located within the FEMA 100-year Special Flood Hazard Area, Zone AH of Crane Bayou. Land use in the surrounding area is characterized by dense residential and industrial development. On-site photographs are provided in Appendix 2.

Please review the attached figures and information concerning the proposed project to determine if the project is consistent with your agency's environmental regulations or policies. Please respond by letter at your earliest convenience. Your prompt attention to this matter would be greatly appreciated, as your signed concurrence letter is necessary to complete the application for grant funding from FEMA.

Please call or email me should you have any questions concerning this project or if I can be of any further assistance.

Sincerely,
For LJA Environmental Services, Inc.

C. Lee Sherrod
Senior Project Director
(512)431-3562
lsherrod@lja.com

LJA ENVIRONMENTAL SERVICES

Headquarters: 14701 St. Mary's Lane, Suite 400, Houston, Texas 77079
t 713.953.5200 LJAENVIRONMENTAL.com
Regional Field Offices: Arlington • Austin • Corpus Christi • McKinney

18 June 2024

US Fish and Wildlife Service
Ecological Services Field Office – Clear Lake
17629 El Camino Real, Suite 211
Houston, Texas 77058-3051

RE: Proposed Jefferson County Drainage District No. 7 Project:
Groves Detention Project
Located at Taft Avenue and HWY 87 in Groves,
Jefferson County, Texas

Dear Sirs:

Jefferson County Drainage District No. 7 (JCDD7) implements and maintains drainage projects throughout the District's 107.5 square mile area located in Jefferson County and includes the cities of Port Arthur, Groves, Nederland and Port Neches. JCDD7 also works with other jurisdictions to identify flood-prone areas, to encourage inclusion of flood-damage avoidance measures in land development. JCDD7 has applied to the Federal Emergency Management Agency (FEMA) for grant funding to establish a detention pond in the Crane Bayou watershed. The detention pond will give relief to storm water flowing through the Atlantic Main Channel to Crane Bayou pump station #7. Environmental reviews are required under the National Environmental Policy Act (NEPA) and the Council on Environmental Quality Guidelines, 40 CFR Parts 1500 to 1508. This coordination letter is being provided for your agency's' response in conformance with NEPA procedures.

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Appendix 1 contains maps depicting the location of the proposed detention pond, including an aerial view of the project area, and a topographic map of the project area. Land use in surrounding area is characterized by dense residential and industrial development. On-site photographs are provided in Appendix 2.

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been conducted. LJA field personnel conducted a field assessment of the property in February of 2021. In upland areas, the subject property is dominated by Chinese tallow (*Triadica sebifera*), groundsel tree (*Baccharis halimifolia*), little bluestem (*Schizachyrium scoparium*), sawtooth blackberry (*Rubus argutus*), and poorjoe (*Hexasepalum teres*). The site contains several depressional wetland areas that are dominated by Chinese tallow (*Triadica sebifera*), sand spike-rush (*Eleocharis montevidensis*), southern wax myrtle (*Myrica cerifera*), savannah-panicgrass (*Phanopyrum gymnocarpon*), and bushy bluestem (*Andropogon glomeratus*).

LJAES observed no federally listed T/E species or potential habitats on or within the immediate vicinity of the project area. Additionally, desktop review indicates no federally designated critical habitat is present in the project area. Please refer to Appendix 3 for the Information for Planning and Consultation (IPAC) report of federally listed species known to occur within Jefferson County.

Please review the attached figures and information concerning the proposed project to determine if the project is consistent with your agency's environmental regulations or policies. Please respond by letter at your earliest convenience. Your prompt attention to this matter would be greatly appreciated, as your response is necessary to complete the application for grant funding from FEMA.

Please call or email me should you have any questions concerning this project or if I can be of any further assistance.

Sincerely,
For LJA Environmental Services LLC

C. Lee Sherrod
Senior Project Director
(512)431-3562
lsherrod@lja.com

From: Leslie Koza
To: Lee Sherrod
Subject: RE: Jefferson County Drainage District 7 - Groves Detention Project
Date: Wednesday, June 19, 2024 2:54:27 PM
Attachments: image001.png
image002.png
image003.png
image004.png
image005.png
image006.png

[EXTERNAL EMAIL]

Mr. Sherrod,
The GLO does not currently have any listed federal financial assistance activities so a federal consistency review is not required. Please feel free to contact me if you have any questions.
Thanks,
Leslie Koza
Federal Consistency Coordinator
512-463-7497
leslie.koza@glo.texas.gov
Federal.Consistency@glo.texas.gov
Texas General Land Office
Commissioner Dawn Buckingham, M.D.

From: Lee Sherrod <lsherrod@horizon-esi.com>
Sent: Tuesday, June 18, 2024 3:00 PM
To: Federal Consistency <Federal.Consistency@GLO.TEXAS.GOV>
Subject: [EXTERNAL] Jefferson County Drainage District 7 - Groves Detention Project

Attached request for consistency determination. FEMA grant. No Corps permit. Let me know if you need additional information.

Thanks,

C. LEE SHERROD | SENIOR PROJECT DIRECTOR
LJA Environmental Services, LLC
Horizon Environmental Services
O: 512-328-2430 | D: 512-439-4788 | **C: 512-431-3562**
1507 South IH 35, Austin, TX 78741
EMPLOYEE-OWNED. CLIENT FOCUSED.
www.lja.com

From:	Linda Cathey
To:	Michelle Falgout; Lee Sherrod
Subject:	Re: Jefferson County Drainage District 7 - Groves Detention Project
Date:	Monday, July 1, 2024 1:13:08 PM
Attachments:	image001.png image002.png image003.png image004.png image005.png image006.png Outlook-lfmcdso5.png Outlook-y0mddods.png

---

[EXTERNAL EMAIL]

Lee,

The proposed project is in the City Limits of Groves, therefore the County has no comments.

Sincerely,
Linda Cathey, CFM
Senior Engineering Specialist
Jefferson County
1149 Pearl Street, 5th Floor
Beaumont, Texas 77701
409-835-8584
Linda.Cathey@jeffcotx.us

From: Michelle Falgout <Michelle.Falgout@jeffcotx.us>
Sent: Tuesday, June 18, 2024 4:50 PM
To: Lee Sherrod <lsherrod@horizon-esi.com>
Cc: Linda Cathey <Linda.Cathey@jeffcotx.us>
Subject: Re: Jefferson County Drainage District 7 - Groves Detention Project

Lee
Good to hear from you as well!!!
FYI, I'm heading out for vacation this afternoon and won't be back until next Thursday.
I'll forward this to another County CFM, Linda Cathey, for review.
We will get back with you as soon as possible.

Thank you,

Michelle Falgout, CFM, P.E.
County Engineer
Jefferson County Texas
michelle.falgout@jeffcotx.us
409-835-8584

Jefferson County Courthouse
1149 Pearl Street, 5th Floor
Beaumont, Texas 77701

From: Lee Sherrod <lsherrod@horizon-esi.com>
Sent: Tuesday, June 18, 2024 3:35 PM
To: Michelle Falgout <Michelle.Falgout@jeffcotx.us>
Subject: Jefferson County Drainage District 7 - Groves Detention Project

Hey Michelle. Hope you are doing well. Please see attached.

Thanks,

C. LEE SHERROD | SENIOR PROJECT DIRECTOR
LJA Environmental Services, LLC
Horizon Environmental Services
O: 512-328-2430 | D: 512-439-4788 | **C: 512-431-3562**
1507 South IH 35, Austin, TX 78741
EMPLOYEE-OWNED. CLIENT FOCUSED.
www.lja.com

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

July 2, 2024

Lee Sherrod
Senior Project Director
LJA Environmental Services, LLC
1507 South IH 35
Austin, TX 78741

Via: **E-mail**

Re: **TCEQ NEPA Request #2024-189. PROPOSED JEFFERSON COUNTY DRAINAGE DISTRICT NO. 7 PROJECT: GROVES DETENTION POND PROJECT. Jefferson County.**

Dear Lee,

The Texas Commission on Environmental Quality (TCEQ) has reviewed the above-referenced project and offers the following comments:

The proposed action is located in Jefferson County, which is currently designated as attainment/unclassifiable for the National Ambient Air Quality Standards (NAAQS) for all six criteria air pollutants. However, the TCEQ is evaluating the South Coast Air Quality Management District v. EPA, No. 15-1115 (D.C. Cir. 2018), which may reinstate general conformity requirements for County name County as part of the Beaumont-Port Arthur maintenance area for the revoked 1997 eight-hour ozone NAAQS. Per federal general conformity regulations at 40 CFR §93.153, a conformity demonstration may be required when the total projected direct and indirect volatile organic compounds (VOC) and nitrogen oxides (NOX) emissions—precursor pollutants that lead to the formation of ozone—from an applicable federal action are equal to or exceed the de minimis emissions level of 100 tons per year for ozone NAAQS maintenance areas. Please consult with the lead federal agency associated with this project for National Environmental Policy Act compliance and/or with the United States Environmental Protection Agency to determine whether this proposed action is subject to federal general conformity regulations.

The Office of Water does not anticipate significant long term environmental impacts from this project as long as construction and waste disposal activities associated with it are completed in accordance with applicable local, state, and federal environmental permits, statutes, and regulations. We recommend that the applicant take necessary steps to ensure that best management practices are used to control runoff from construction sites to prevent detrimental impact to surface and ground water.

Any debris or waste disposal should be at an appropriately authorized disposal facility.

Thank you for the opportunity to review this project. If you have any questions, please contact the agency NEPA coordinator at (512) 239-5538 or NEPA@tceq.texas.gov

Sincerely,

Ryan Vise,
Division Director
External Relations

ATTACHMENT 4

ON-SITE PHOTOGRAPHS

View of eastern boundary of subject property and JCDD7's A3A drainage ditch, facing north.

View of northern boundary of subject property at northwest corner, facing east.

View of western boundary of subject property, facing north.

View of forested vegetation on subject property, facing east from western boundary.

Typical view of structures in the Benefit Area.

View of industrial facilities in the Benefit Area.

Typical view of structures in the Benefit Area.

View of Atlantic Main Canal and school to be demolished in the basin site..

ATTACHMENT 5

SECTION 404 DETERMINATION INFORMATION

WETLAND ASSESSMENT DETERMINATION AND DELINEATION

48 ± ACRES
NORTH OF TAFT AVENUE & STATE HIGHWAY 87/73
JEFFERSON COUNTY, TEXAS

LJA ENVIRONMENTAL SERVICES

PREPARED FOR
JEFFERSON COUNTY DRAINAGE DISTRICT NO. 7

LJA ENVIRONMENTAL SERVICES
ENVIRONMENTAL SCIENCE & LAND USE CONSULTANTS
HOUSTON, TEXAS

REPORT NO: LJAES 033-200008
REV. JUNE 2023

TABLE OF CONTENTS

SUMMARY

A Wetland Assessment Determination and Delineation was performed for Jefferson County Drainage District No. 7 on a 48 ± acre tract of land, located north of Taft Avenue and State Highway 87/73, in Jefferson County, Texas. A portion of the site includes a school that is scheduled for demolition and the school property will be incorporated into the detention project.

The subject property was evaluated for its content of wetlands and other water features, based on criteria set forth in the 1987 Corps of Engineers Wetland Delineation Manual and the 2010 Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Atlantic and Gulf Coastal Plain Region (v.2) (Regional Supplement). Wetlands were identified and delineated using interpretation of historical aerial photography, topographic maps, hydrology indicators, and field evaluation of hydric soils, hydrology, and hydrophytic vegetation.

Topographical information published by the United States Geological Survey (USGS) indicates a gently sloping landscape with storm-water runoff flowing generally southwest off the subject property into West Crane Bayou. The FEMA floodplain maps indicates that over half of the subject property lies within the mapped 100-year FEMA floodplain of West Crane Bayou.

The United States Department of Agriculture (USDA), Web Soil Survey of Jefferson County was, for the most part, reasonably accurate in identifying the basic soil type on the property as Urban Land (URLX).

Vegetation communities were evaluated and documented to delineate wetland and upland boundaries. In upland areas, the subject property was dominated by Chinese tallow (*Triadica sebifera*), groundsel tree (*Baccharis halimifolia*), little bluestem (*Schizachyrium scoparium*), sawtooth blackberry (*Rubus argutus*), and poorjoe (*Hexasepalum teres*). In wetland areas, the subject property was dominated by Chinese tallow (*Triadica sebifera*), sand spike-rush (*Eleocharis montevidensis*), southern wax myrtle (*Myrica cerifera*), savannah-panicgrass (*Phanopyrum gymnocarpon*), and bushy bluestem (*Andropogon glomeratus*).

Based on the wetland delineation presented in this report and the survey data collected using Global Positioning System (GPS) satellite equipment, it is the professional opinion of LJA Environmental Services, LLC (LJAES) that 16.13 acres of the subject property would meet the technical criteria to be considered a wetland, as set forth by the U.S. Army Corps of Engineers (USACE). The wetland areas identified would likely be considered non-jurisdictional since none of these wetlands are directly abutting a relatively permanent water of the US (Atlantic Main Canal, West Crane Bayou, or Sabine Lake).

The USACE and the Environmental Protection Agency (EPA) are the final authority over the jurisdictional status of both wetlands and other water features per Section 404 of the Clean Water Act (CWA). The findings discussed in this report are solely the opinion of LJAES and have not been verified by the aforementioned regulatory governmental agencies.

Potential jurisdiction of all aquatic resources was evaluated according to language in the recent Supreme Court decision (Sackett et ux., vs. Environmental Protection Agency et al., May 25, 2023).

WETLAND ASSESSMENT
DETERMINATION AND DELINEATION

INTRODUCTION

The study reported herein is a Wetland Assessment, Determination and Delineation Study for Jefferson County Drainage District No. 7 on a 48 ± acre tract of land, located north of Taft Avenue and State Highway 87/73, in Jefferson County, Texas.

AUTHORIZATION

This study was performed as authorized by Mr. Phil Kelley of Jefferson County Drainage District No. 7.

SITE LOCATION

The subject property is located north of Taft Avenue and State Highway 87/73, in Jefferson County, Texas. The subject property is depicted more specifically in the site maps located in **Attachment A**.

SCOPE OF WORK

The objective of this Wetland Assessment Determination and Delineation Study was to evaluate the subject property for wetlands and other water features that may be jurisdictional under Section 404 of the Clean Water Act and current regulations and policies of the USACE. The following evaluations were performed for this project:

1. Vegetation Indicators: Evaluation for the presence or absence of hydrophytic vegetation (waterplants) that is typically adapted to wetlands and determination of the vegetative patterns that are prevalent within the site, or specific areas within the site.

2. Soil Indicators: Determination for the presence or absence of soils that would be classified as hydric.

3. Hydrology Indicators: Evaluation of the hydrological features of the site with respect to water accumulation and wetland development.

4. Historical Characteristics: Evaluation of historical information to determine the existence and development of wetland features over extended periods of time.

METHODOLOGY/INVESTIGATIVE WORK

The Wetland Assessment Determination and Delineation work consisted of reviewing published historical information and detailed site reconnaissance, to evaluate the subject property for the presence or absence of wetlands according to criteria set forth in the Regional Supplement. The following activities were undertaken to perform the wetland delineation: 1) review county soil maps; 2) review FEMA floodplain maps; 3) review USGS topographic maps; 4) interpret current and historical aerial photography; and 5) perform site reconnaissance to evaluate and document soil, hydrology, and vegetation indicators.

1. Soil Survey Evaluation:

Prior to site reconnaissance activities, the USDA Web Soil Survey of Jefferson County, Texas was reviewed to determine the types of soils that would most likely be present on the subject property (**Attachment B**).

Given the criteria and techniques employed by the Natural Resources Conservation Service (NRCS), formerly known as the Soil Conservation Service, for the survey process, it was considered probable that the boundaries depicted on the survey could contain certain inaccuracies. The minimum mapping area for any given soil in the NRCS survey is ten (10) acres, with the probability of imprecise boundary delineation being relatively high. Therefore, as part of site reconnaissance activities, on site soil evaluations were performed to describe, classify, and document the hydric, or non-hydric, characteristics of the primary soils on the subject property.

2. Hydrology Evaluation:

To assess the hydrological characteristics of the site, current published FEMA maps were evaluated to determine if the property lies within, or adjacent to, the floodway, the 100, and/or 500-year floodplain (**Attachment B**). Due to the low topographic grades found on the Gulf Coast, periodic floods are common along rivers, creeks and bayous. These floods, along with rainfall and subsurface flow, are the primary sources of hydrology for wetlands located inland of immediate coastal areas. In addition to FEMA maps, probable flow patterns and evidence of inundation and/or periods of saturation in potential wetland areas were evaluated on site.

3. Topography Evaluation:

Investigative activities also included observations of the property's general topography and the location of landscape features such as depressions, ridges, and levees. These features could determine wetland patterns and their associated hydrological functions. Topography was evaluated by reviewing: 1) topographical information published by the USGS; 2) LiDAR; 3) aerial photography; and 4) on site observations.

4. Aerial Photography:

Wetlands generally occur as historical features on the landscape and usually maintain their basic configurations and appearances over a long period of time. However, vegetation communities naturally progress through several stages of predominance as wetlands age and mature. Additionally, topographical and hydrological characteristics may be changed by natural processes or by man-induced alterations in or near wetland areas. While field verification remains essential to wetland identification and delineation, historical aerial photography can play a vital role in the evaluation of wetland features and the variations, which may occur over extended periods of time. Aerial photography was used extensively in the evaluations made on the subject property. A variety of sources were used to provide photographic coverage of the area, including large-scale infrared photographs, color photographs, and black and white photographs (**Attachment C**).

1. Infrared Photography: High-altitude infrared photographs provide views of the subject property as a complete unit where areas and systems of high water content become more easily defined. Such areas are slightly cooler than the surrounding areas and will appear on the false color imagery as variations in shading.

2. Color Photography: Color photographs provide contrasts in shading from lower altitudes that can assist in the identification of vegetation patterns and development that should be verified in the field.

3. Methodology of Interpretation: Color photographs from 2020 were analyzed for vegetation patterns that might distinguish wetland areas. These photographs were compared with infrared photography, including from 1995, and 2009. Areas which consistently appeared as possible wetlands were marked for field confirmation. The same process also identified areas that appeared marginal or upland. From these photographic interpretations, a preliminary "rough" delineation pattern was established and incorporated into planned field reconnaissance.

5. Transects:

Based upon methodology described in the Regional Supplement, transects must be performed on properties greater than five (5) acres in size. With the use of aerial photography, topographic maps, and a boundary survey, a baseline was determined parallel to the nearest major watercourse, Sabine Lake. The baseline was then divided into equal segments. Three (3) transects were established at random perpendicular to the established baseline, prior to the site visit on the subject property.

6. Site Reconnaissance:

The primary method of wetland identification and delineation was site reconnaissance activity that would identify and document the conditions that existed on the subject property as related to wetlands and other water features. The site visit was performed to target the following specific areas: 1) soil surveys and geology; 2) topography and hydrology; and 3) vegetation.

The site was visited in February 2021 and January-March, 2023, by personnel from LJAES. Using the diagnostic criteria set forth in the Regional Supplement for sampling hydrology, soils and vegetation, the site was evaluated for the presence of wetlands. As part of a comprehensive assessment of the property, upland (non-wetland) areas were also identified and sampled according to the Regional Supplement.

The data collection of GPS/GIS information for the purpose of wetland delineation & determination followed the Standard Operating Procedures (SOP) set forth by the USACE. The data was recorded using a handheld Trimble Geo 7X, collected with a minimum of 4 satellites and a PDOP value of 6. Precision of six digits past the decimal point was maintained through all data processing.

Soil samples were documented and fully described according to NRCS staff (1991) criteria and were classified as either hydric or non-hydric. Numerous additional undocumented observations were made to define and establish trends or to verify aerial photo interpretation and/or NRCS mappings.

During site survey activities for soil identification, dominant plant life and vegetation communities were sampled, identified and documented for correlation with soil and hydrology data. As each soil description was made, dominant vegetation was recorded and photographed for the respective area (**Attachment D**). Representative samples were collected and identified as necessary for specific sites. Attempts were made to comprehensively observe and document plant communities and species for all areas of the property, with special focus on those plants that would be considered associated with wetlands.

Site reconnaissance activities also included observations of the general topography of the property and the landscape positions of depressions, ridges, levees, and other features that could determine wetland patterns and their associated hydrological features. A total of fourteen (14) upland and seventeen (17) wetland samples were documented and fully described according to the Regional Supplement. Stream channel classification methodology included identifying an OHWM, defined bed and bank, groundwater and floodway connection, as well analyzing the site hydrologic conditions using the Antecedent Precipitation Tool (APT) to establish a baseline for typical year conditions.

FINDINGS

1. Geology and Soils:

Geologically, the subject property is underlain by the Beaumont Formation. The Beaumont Formation is one of the youngest formations occurring in Jefferson County and crops out extensively throughout the county. This formation is characterized by a relict depositional pattern of slightly elevated meandrous ridges separated by low-lying flats. The lows are old back swamps or floodplains. The Beaumont Formation originates from the fluvial deposits of Buffalo Bayou, Greens Bayou, Cedar Bayou, and the Brazos, San Jacinto and Trinity Rivers.

The USDA Web Soil Survey of Jefferson County was, for the most part, reasonably accurate in identifying the basic soil type on the property as Urban Land Complex (UrlX).

Urban Land (UrlX) is a miscellaneous soil area without documented soil characteristics.

Documentation of soil descriptions and classifications from each of the sample areas are presented in the Data Forms (**Attachment E**).

2. Topography and Hydrology:

Topographical information published by USGS indicates a gently sloping landscape with storm-water runoff flowing generally southwest off the subject property into West Crane Bayou. The FEMA floodplain maps indicate that over half of the subject property lies within the mapped 100-year FEMA floodplain of West Crane Bayou.

To account for recent weather patterns and climactic abnormalities, historic precipitation data was reviewed to establish a reference for "typical year" conditions observed on site which could influence hydrology and plant communities. The USACE Antecedent Precipitation Tool (APT) was used, which compares the previous 3-months of precipitation rolling totals to a 30-year average of monthly precipitation to categorize the 3-month period prior to each site visit. This process eliminates 'normal high' and 'normal low' weather events to establish typical year conditions. Moisture levels were measured through the Palmer Drought Severity Index (PDSI).

MONTH	PDSI Value	PDSI Class	Season	WET Score	Antecedent Precipitation Condition
2/04/21	-0.95	Incipient drought	Wet Season	Drier (9)	Drier than Normal

Based on the APT calculations, the hydrology in the period leading up to the original site assessment (February 2021) can be classified as drier than normal conditions. The hydrologic conditions for the site visit were taken into consideration and would not affect water feature classification.

Additional field investigations were conducted in January and March 2023 for areas of additional concern and inclusion in the project boundary.

Documentation of the produced APT graphs are provided in **Attachment F**.

3. Vegetation:

Vegetation communities were evaluated and documented to delineate wetland and upland boundaries. In upland areas, the subject property was dominated by Chinese tallow (*Triadica sebifera*), groundsel tree (*Baccharis halimifolia*), little bluestem (*Schizachyrium scoparium*), sawtooth blackberry (*Rubus argutus*), and poorjoe (*Hexasepalum teres*). Open and maintained (mowed) areas were dominated by St. Augustine grass (*Stenotaphrum* secondatum). In wetland areas, the subject property was dominated by Chinese tallow (*Triadica sebifera*), sand spike-rush (*Eleocharis montevidensis*), southern wax myrtle (*Myrica cerifera*), savannah-panicgrass (*Phanopyrum gymnocarpon*), and bushy bluestem (*Andropogon glomeratus*).

As with the methods employed during soil survey activities, specific documentation was made in order to identify representative vegetation patterns within certain areas. Records of plant descriptions and classifications from each of the sample areas are presented in the Data Forms (**Attachment E**).

CONCLUSIONS

It is the professional opinion of LJA Environmental Services (LJAES) that 16.13 acres of the subject property would meet the technical criteria to be considered a wetland, as set forth by the 1987 USACE Wetland Delineation Manual and Atlantic and Gulf Coast Regional Supplement. The wetland areas identified would likely be considered non-jurisdictional as none of the wetland areas directly abut a relatively permanent water of the US.

The opinions expressed in this report are based on LJAES's professional interpretation of the recent Supreme Court decision (Sackett et ux., vs. Environmental Protection Agency et al., May 25, 2023).

The USACE and the EPA are the final authority over the jurisdictional status of both wetlands and Waters of the U.S. per Section 404 of the CWA. The findings discussed in this report are solely the opinion of LJAES and have not been verified by the aforementioned regulatory governmental agencies.

Respectfully,

Natalie Davis
Project Manager
LJA Environmental Services

Keith Morgan
Vice President
LJA Environmental Services

REFERENCES

Department of Rangeland Ecology and Management. July 1990. *A Checklist of Vascular Plants of Texas*. Texas A&M University. <http://botany.csdl.tamu.edu/FLORA/taes/tracy/regeco.html>.

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United States Department of Agriculture Soil Conservation Service. 1991. *Hydric Soils of the United States.* Soil Conservation Service. In Cooperation with the National Technical Committee for Hydric Soils, Washington D.C. < http://websoilsurvey.nrcs.usda.gov/app/>.

Vines, Robert. 1960. *Trees, Shrubs and Woody Vines of the Southwest.* Austin: University of Texas Press

ATTACHMENT G

WETLAND DELINEATION MAP

NOTE: Potential wetland and jurisdictional water areas depicted have been classified as "isolated" or "adjacent" based upon LJA Environmental Services' assessment of the jurisdictional designation of these potential wetland and water areas. The actual designations should be verified by the Corps of Engineers - the final authority on jurisdictional status.

N

W1 - 0.43 ac
W2 - 4.24 ac
W3 - 0.23 ac
W4 - 0.28 ac
W5 - 10.23 ac
W6 - 0.4 ac
W7 - 0.02 ac
W8 - 0.03 ac
W9 - 0.004 ac
W10 - 0.06 ac
W11 - 0.21 ac

Wet 33
Wet 3A
Wet 4
Up 8
Up 6
Wet 3B
Wet 3C
Up 3
Wet 2
Wet 32
Up 2
Upl 31
Upl 30
Wet 1D
Wet 1C
Up 4
Wet 5
Wet 1B
Up 5
Wet 1E
Wet 24
Up 1
Upl 25
Wet 29
Wet 20
Wet 1A
Wet 27
Upl 21
Upl 26
Upl 22
Wet 28
Wet 23

Taft Ave

0 250 500 Feet

Location: Jefferson County, Texas
Image Source: NAIP (2020)
Projection: NAD 83, UTM Zone 15N
GIS Contact: Robin San Miguel (rosanmiguel@lja.com)

Legend	Acres
Non-Abutting Wetlands (Potentially Non-Jurisdictional)	16.13
Sample Points	
Transects	
Project Boundary	47.7

WETLAND DETERMINATION AND CLASSIFICATION
SITE LOCATION MAP

LJA ENVIRONMENTAL SERVICES
ENVIRONMENTAL SCIENCE & LAND USE CONSULTANTS
14701 ST. MARY'S LANE, SUITE 400
HOUSTON, TEXAS 77079 PHONE (281)589-0898 http://www.bergoliver.com

REVISIONS
04/10/2023 KRW

Project #: LJAES 033-200008
For: Jefferson County Drainage Distrcit No. 7
Location: N of Taft Ave & SH 87
Jefferson County, Texas

DEPARTMENT OF THE ARMY
U. S. ARMY CORPS OF ENGINEERS, GALVESTON DISTRICT
2000 FORT POINT ROAD
GALVESTON, TEXAS 77550

MAY 7, 2024

Compliance Branch

SUBJECT: **SWG-2021-00829**; Jefferson County Drainage District No. 7, Approved Jurisdictional Determination, Approximate 48-Acre Tract, Taft Avenue and State Highway 73/87, Groves, Jefferson County, Texas

Mr. Lee Sherrod
LJA Environmental Services, LLC
1507 South IH 35
Austin, Texas 78741

Dear Mr. Sherrod:

This letter is in reference to the June 12, 2023, approved jurisdictional determination request for an approximate 48-acre tract received from LJA Environmental Services, LLC, on behalf of the Jefferson County Drainage District No. 7. The site is located at the intersection of Taft Avenue and State Highway 73/87, Groves, Jefferson County, Texas. (Map enclosed).

The Corps of Engineers has the regulatory responsibility over two primary federal laws, Section 10 of the Rivers and Harbors Act (Section 10) which regulates work and/or structures in/or affecting navigable waters of the United States (U.S.) and Section 404 of the Clean Water Act (Section 404) which regulates the discharge of dredged and/or fill material into waters of the U.S., including adjacent wetlands. If activities involved trigger either of these federal regulations, a Department of the Army (DA) permit is required prior those activities occurring. Based on our desk review, we determined the approximate 48-acre tract contains eleven wetlands (W1, W2, W3, W4, W5, W6, W7, W8, W9, W10, and W11) totaling approximately 16.13 acres and one drainage swale totaling approximately 638 linear feet. We determined that the wetlands are non-adjacent with no known nexus to interstate or foreign commerce and are not waters of the United States. We determined that the drainage swale is not a relatively permanent water as defined in the pre-2015 regime post Sackett guidance and is not a water of the United States. Therefore, the discharge of dredged and/or fill material or any work and/or the placement of structures in these wetlands and drainage swale are not subject to Section 404 of the Clean Water Act or Section 10 of the Rivers and Harbors Act and do not require a Department of the Army permit.

Areas of Federal Interests (federal projects, and/or work areas) may be located within this proposed project area. Any activities in these federal interest areas would also be subject to federal regulations under the authority of Section 14 of the Rivers and Harbors Act (aka Section 408). Section 408 makes it unlawful for anyone to alter in any manner, in whole or in part, any work (ship channel, flood control channels, seawalls, bulkhead, jetty, piers, etc.) built by the United States unless it is authorized by the Corps of Engineers (i.e., Navigation and Operations Division).

This delineation and/or jurisdictional determination included herein has been conducted to identify the location and extent of the aquatic resource boundaries and/or the jurisdictional status of aquatic resources for the purpose of the Clean Water Act for the particular site identified in this request. This delineation and/or jurisdictional determination may not be valid for the Wetland Conservation Provisions of the Food Security Act of 1985 as amended. If you or your tenant are USDA program participants, or anticipate participation in USDA programs, you should discuss the applicability of a certified wetland determination with the local USDA service center, prior to starting work.

This letter constitutes an AJD for your subject site. The AJD is valid for five years from the date of this letter unless new information warrants a revision prior to the expiration date. For the purposes of this AJD, we have relied on Pre-2015 Regulatory Regime implemented consistent with Sackett v. EPA in evaluating jurisdiction. If you object to the AJD determination, you may request an administrative appeal under USACE regulations at 33 CFR Part 331. You will find an enclosed Notification of Appeals Process (NAP) fact sheet and Request for Appeal (RFA) form. If you request to appeal this determination, you must submit a completed RFA form to the Southwest Division Office at the following address:

Mr. Jamie Hyslop
Administrative Appeals Review Officer
Southwest Division (CESWD-PR-O)
U.S. Army Corps of Engineers
1100 Commerce Street, Room 831
Dallas, Texas 75242-1317
Telephone: 469-216-8324
Email: Jamie.r.Hyslop@usace.army.mil

In order for an RFA to be accepted by the Corps, the Corps must determine that it is complete; that it meets the criteria for appeal under 33 CFR Part 331.5, and that it has been received by the Division Office within 60 days of the date of the NAP; noting the letter date is considered day 1. It is not necessary to submit an RFA form to the Division office if you do not object to the determination in this letter.

If you have questions concerning this matter, please reference file number **SWG-2021-00829** and contact me at the letterhead address or by telephone at 409-766-6322. To assist us in improving our service to you, please complete the survey found at https://regulatory.ops.usace.army.mil/customer-service-survey/ and/or, if you would prefer a hard copy of the survey form, please let us know, and one will be mailed to you.

Sincerely,

Lynne Ray
Project Manager
Compliance Branch

Enclosures

DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, GALVESTON DISTRICT
2000 FORT POINT ROAD
GALVESTON, TEXAS 77550

CESWG-RD-RC 07 May 2024

MEMORANDUM FOR RECORD

SUBJECT: US Army Corps of Engineers (Corps) Pre-2015 Regulatory Regime Approved Jurisdictional Determination in Light of *Sackett v. EPA*, 143 S. Ct. 1322 (2023) ,[1] SWG-2021-00829, MFR 1 of 1.[2]

BACKGROUND. An Approved Jurisdictional Determination (AJD) is a Corps document stating the presence or absence of waters of the United States on a parcel or a written statement and map identifying the limits of waters of the United States on a parcel. AJDs are clearly designated appealable actions and will include a basis of JD with the document.[3] AJDs are case-specific and are typically made in response to a request. AJDs are valid for a period of five years unless new information warrants revision of the determination before the expiration date or a District Engineer has identified, after public notice and comment, that specific geographic areas with rapidly changing environmental conditions merit re-verification on a more frequent basis.[4] For the purposes of this AJD, we have relied on section 10 of the Rivers and Harbors Act of 1899 (RHA),[5] the Clean Water Act (CWA) implementing regulations published by the Department of the Army in 1986 and amended in 1993 (references 2.a. and 2.b. respectively), the 2008 *Rapanos-Carabell* guidance (reference 2.c.), and other applicable guidance, relevant case law and longstanding practice, (collectively the pre-2015 regulatory regime), and the *Sackett* decision (reference 2.d.) in evaluating jurisdiction.

This Memorandum for Record (MFR) constitutes the basis of jurisdiction for a Corps AJD as defined in 33 CFR §331.2. The features addressed in this AJD were evaluated consistent with the definition of “waters of the United States” found in the pre-2015 regulatory regime and consistent with the Supreme Court's decision in *Sackett*. This AJD did not rely on the 2023 “Revised Definition of ‘Waters of the United States,’” as

[1] While the Supreme Court’s decision in *Sackett* had no effect on some categories of waters covered under the CWA, and no effect on any waters covered under RHA, all categories are included in this Memorandum for Record for efficiency.
[2] When documenting aquatic resources within the review area that are jurisdictional under the Clean Water Act (CWA), use an additional MFR and group the aquatic resources on each MFR based on the TNW, interstate water, or territorial seas that they are connected to. Be sure to provide an identifier to indicate when there are multiple MFRs associated with a single AJD request (i.e., number them 1, 2, 3, etc.).
[3] 33 CFR 331.2.
[4] Regulatory Guidance Letter 05-02.
[5] USACE has authority under both Section 9 and Section 10 of the Rivers and Harbors Act of 1899 but for convenience, in this MFR, jurisdiction under RHA will be referred to as Section 10.

amended on 8 September 2023 (Amended 2023 Rule) because, as of the date of this decision, the Amended 2023 Rule is not applicable in Texas due to litigation.

1. SUMMARY OF CONCLUSIONS.

   a. Provide a list of each individual feature within the review area and the jurisdictional status of each one (i.e., identify whether each feature is/is not a water of the United States and/or a navigable water of the United States).

Feature	Acres	Linear Feet	Latitude	Longitude	Jurisdiction
W1	0.430		29.94832	-93.8917	non-adjacent, non-jurisdictional
W2	4.240		29.94778	-93.8918	non-adjacent, non-jurisdictional
W3	0.230		29.94789	-93.9832	non-adjacent, non-jurisdictional
W4	0.280		29.94695	-93.8916	non-adjacent, non-jurisdictional
W5	10.230		29.94652	-93.8926	non-adjacent, non-jurisdictional
W6	0.400		29.94669	-93.8943	non-adjacent, non-jurisdictional
W7	0.020		29.94612	-93.8939	non-adjacent, non-jurisdictional
W8	0.030		29.94588	-93.8932	non-adjacent, non-jurisdictional
W9	0.004		29.94555	-93.8928	non-adjacent, non-jurisdictional
W10	0.060		29.94481	-93.8928	non-adjacent, non-jurisdictional
W11	0.210		29.94505	-93.8924	non-adjacent, non-jurisdictional
Drainage Swale		638	29.94707	-93.89477	non-relatively permanent, non-jurisdictional
Total	16.134	638			

2. REFERENCES.

   a. Final Rule for Regulatory Programs of the Corps of Engineers, 51 FR 41206 (November 13, 1986).

   b. Clean Water Act Regulatory Programs, 58 FR 45008 (August 25, 1993).

   c. U.S. EPA & U.S. Army Corps of Engineers, Clean Water Act Jurisdiction Following the U.S. Supreme Court's Decision in *Rapanos v. United States & Carabell v. United States* (December 2, 2008)

   d. *Sackett v. EPA*, 598 U.S. _, 143 S. Ct. 1322 (2023)

3. REVIEW AREA. The review area is located at the intersection of Taft Avenue and Gulfway Drive, Groves, Jefferson County, Texas. 29.947071°, -93.894775°

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4. NEAREST TRADITIONAL NAVIGABLE WATER (TNW), INTERSTATE WATER, OR THE TERRITORIAL SEAS TO WHICH THE AQUATIC RESOURCE IS CONNECTED. N/A[6]

5. FLOWPATH FROM THE SUBJECT AQUATIC RESOURCES TO A TNW, INTERSTATE WATER, OR THE TERRITORIAL SEAS. N/A

6. SECTION 10 JURISDICTIONAL WATERS[7]: Describe aquatic resources or other features within the review area determined to be jurisdictional in accordance with Section 10 of the Rivers and Harbors Act of 1899. Include the size of each aquatic resource or other feature within the review area and how it was determined to be jurisdictional in accordance with Section 10.[8] N/A

7. SECTION 404 JURISDICTIONAL WATERS: Describe the aquatic resources within the review area that were found to meet the definition of waters of the United States in accordance with the pre-2015 regulatory regime and consistent with the Supreme Court's decision in *Sackett*. List each aquatic resource separately, by name, consistent with the naming convention used in section 1, above. Include a rationale for each aquatic resource, supporting that the aquatic resource meets the relevant category of "waters of the United States" in the pre-2015 regulatory regime. The rationale should also include a written description of, or reference to a map in the administrative record that shows, the lateral limits of jurisdiction for each aquatic resource, including how that limit was determined, and incorporate relevant references used. Include the size of each aquatic resource in acres or linear feet and attach and reference related figures as needed.

    a. TNWs (a)(1): N/A

    b. Interstate Waters (a)(2): N/A]

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[6] This MFR should not be used to complete a new stand-alone TNW determination. A stand-alone TNW determination for a water that is not subject to Section 9 or 10 of the Rivers and Harbors Act of 1899 (RHA) is completed independently of a request for an AJD. A stand-alone TNW determination is conducted for a specific segment of river or stream or other type of waterbody, such as a lake, where upstream or downstream limits or lake borders are established.

[7] 33 CFR 329.9(a) A waterbody which was navigable in its natural or improved state, or which was susceptible of reasonable improvement (as discussed in § 329.8(b) of this part) retains its character as "navigable in law" even though it is not presently used for commerce or is presently incapable of such use because of changed conditions or the presence of obstructions.

[8] This MFR is not to be used to make a report of findings to support a determination that the water is a navigable water of the United States. The district must follow the procedures outlined in 33 CFR part 329.14 to make a determination that water is a navigable water of the United States subject to Section 10 of the RHA.

c. Other Waters (a)(3): N/A

d. Impoundments (a)(4): N/A

e. Tributaries (a)(5): N/A.

f. The territorial seas (a)(6): N/A

g. Adjacent wetlands (a)(7): N/A

8. NON-JURISDICTIONAL AQUATIC RESOURCES AND FEATURES

a. Describe aquatic resources and other features within the review area identified as "generally non-jurisdictional" in the preamble to the 1986 regulations (referred to as "preamble waters").[9] Include size of the aquatic resource or feature within the review area and describe how it was determined to be non-jurisdictional under the CWA as a preamble water. N/A

b. Describe aquatic resources and features within the review area identified as "generally not jurisdictional" in the *Rapanos* guidance. Include size of the aquatic resource or feature within the review area and describe how it was determined to be non-jurisdictional under the CWA based on the criteria listed in the guidance.

There is a drainage swale located within the project boundary. This drainage swale is best described as a loosely defined topographical swale with no clearly defined bed or bank. This swale does not appear on the Port Arthur North USGS topographic map. Based on Google Earth aerial photos, the swale is not a relatively permanent water as defined in the pre-2015 regime post Sackett guidance and is not a water of the United States.

c. Describe aquatic resources and features identified within the review area as waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of CWA. Include the size of the waste treatment system within the review area and describe how it was determined to be a waste treatment system. N/A

d. Describe aquatic resources and features within the review area determined to be prior converted cropland in accordance with the 1993 regulations (reference

[9] 51 FR 41217, November 13, 1986.

2.b.). Include the size of the aquatic resource or feature within the review area and describe how it was determined to be prior converted cropland. N/A

e. Describe aquatic resources (i.e., lakes and ponds) within the review area, which do not have a nexus to interstate or foreign commerce, and prior to the January 2001 Supreme Court decision in "*SWANCC*," would have been jurisdictional based solely on the "Migratory Bird Rule." Include the size of the aquatic resource or feature, and how it was determined to be an "isolated water" in accordance with *SWANCC*. N/A

f. Describe aquatic resources and features within the review area that were determined to be non-jurisdictional because they do not meet one or more categories of waters of the United States under the pre-2015 regulatory regime consistent with the Supreme Court's decision in *Sackett* (e.g., tributaries that are non-relatively permanent waters; non-tidal wetlands that do not have a continuous surface connection to a jurisdictional water).

Based on our desk review, W1 through W11, do not have any known continuous surface connection to any water of the United States. Based on a review of aerial photos, LiDAR, and topographic maps, there are no erosional features, ditches, or culverts that would serve as continuous surface connections. One drainage swale is present in the project area; however, it does not connect to W5 or any of the other wetlands in the project area nor does it carry a relatively permanent flow. Based on information from the consultant, there is a berm between the southeast portion of W5 and the roadside ditch adjacent to Gulfway Drive; therefore, there is no continuous surface connection between W5 and a Traditional Navigable Water. W1, W2, and W5 continue outside of the project area; however, those wetlands do not abut any ditch, swale, or erosional feature connecting to the nearest Traditional Navigable Water, West Crane Bayou, located approximately 0.43-mile south of the project site. No more than overland sheet flow would exit the wetlands. Therefore, W1 through W11, do not meet the definition of adjacent as defined in the pre-2015 regime post Sackett guidance and are not waters of the United States.

9. DATA SOURCES. List sources of data/information used in making determination. Include titles and dates of sources used and ensure that information referenced is available in the administrative record.

a. Google Earth 2010, 2015, 2019, and 2020

b. Port Arthur North, Texas 1993 Quadrangles.

c. Wetland Delineation Report dated June 12, 2023, submitted by applicant.

d. Texas Water Development Board 2017 Light Detection and Ranging (LiDAR) elevation data.

e. Desk Review March 22, 2024

10. OTHER SUPPORTING INFORMATION. The LiDAR Digital Elevation Map (DEM) does not show any continuous surface connection between W1 through W11 to any Traditional Navigable Water.

11. NOTE: The structure and format of this MFR were developed in coordination with the EPA and Department of the Army. The MFR's structure and format may be subject to future modification or may be rescinded as needed to implement additional guidance from the agencies; however, the approved jurisdictional determination described herein is a final agency action.

NOTIFICATION OF ADMINISTRATIVE APPEAL OPTIONS AND PROCESS AND REQUEST FOR APPEAL

Applicant: Jefferson County Drainage District No. 7	File Number: SWG-2021-00829	Date: May 7, 2024

Attached is:		See Section below
	INITIAL PROFFERED PERMIT (Standard Permit or Letter of permission)	A
	PROFFERED PERMIT (Standard Permit or Letter of permission)	B
	PERMIT DENIAL WITHOUT PREJUDICE	C
	PERMIT DENIAL WITH PREJUDICE	D
X	APPROVED JURISDICTIONAL DETERMINATION	E
	PRELIMINARY JURISDICTIONAL DETERMINATION	F

SECTION I

The following identifies your rights and options regarding an administrative appeal of the above decision. Additional information may be found at https://www.usace.army.mil/Missions/Civil-Works/Regulatory-Program-and-Permits/appeals/ or Corps regulations at 33 CFR Part 331.

A: INITIAL PROFFERED PERMIT: You may accept or object to the permit

- ACCEPT: If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.

- OBJECT: If you object to the permit (Standard or LOP) because of certain terms and conditions therein, you may request that the permit be modified accordingly. You must complete Section II of this form and return the form to the district engineer. Upon receipt of your letter, the district engineer will evaluate your objections and may: (a) modify the permit to address all of your concerns, (b) modify the permit to address some of your objections, or (c) not modify the permit having determined that the permit should be issued as previously written. After evaluating your objections, the district engineer will send you a proffered permit for your reconsideration, as indicated in Section B below.

B: PROFFERED PERMIT: You may accept or appeal the permit

- ACCEPT: If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.

- APPEAL: If you choose to decline the proffered permit (Standard or LOP) because of certain terms and conditions therein, you may appeal the declined permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

C. PERMIT DENIAL WITHOUT PREJUDICE: Not appealable
You received a permit denial without prejudice because a required Federal, state, and/or local authorization and/or certification has been denied for activities which also require a Department of the Army permit before final action has been taken on the Army permit application. The permit denial without prejudice is not appealable. There is no prejudice to the right of the applicant to reinstate processing of the Army permit application if subsequent approval is received from the appropriate Federal, state, and/or local agency on a previously denied authorization and/or certification.

D: PERMIT DENIAL WITH PREJUDICE: You may appeal the permit denial
You may appeal the denial of a permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

E: APPROVED JURISDICTIONAL DETERMINATION: You may accept or appeal the approved JD or provide new information for reconsideration

- ACCEPT: You do not need to notify the Corps to accept an approved JD. Failure to notify the Corps within 60 days of the date of this notice means that you accept the approved JD in its entirety and waive all rights to appeal the approved JD.

- APPEAL: If you disagree with the approved JD, you may appeal the approved JD under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

- RECONSIDERATION: You may request that the district engineer reconsider the approved JD by submitting new information or data to the district engineer within 60 days of the date of this notice. The district will determine whether the information submitted qualifies as new information or data that justifies reconsideration of the approved JD. A reconsideration request does not initiate the appeal process. You may submit a request for appeal to the division engineer to preserve your appeal rights while the district is determining whether the submitted information qualifies for a reconsideration.

F: PRELIMINARY JURISDICTIONAL DETERMINATION: Not appealable
You do not need to respond to the Corps regarding the preliminary JD. The Preliminary JD is not appealable. If you wish, you may request an approved JD (which may be appealed), by contacting the Corps district for further instruction. Also, you may provide new information for further consideration by the Corps to reevaluate the JD.

POINT OF CONTACT FOR QUESTIONS OR INFORMATION:

If you have questions regarding this decision you may contact:

D. Lynne Ray, Regulatory Project Manager
Regulatory Division, Compliance Branch (CESWG-RD-RC)
U.S. Army Corps of Engineers, Galveston District
2000 Fort Point Road
Galveston, Texas 77553-1229
Telephone: 409-766-6322
Email: diana.l.ray@usace.army.mil

If you have questions regarding the appeal process, or to submit your request for appeal, you may contact:

Mr. Jamie Hyslop
Administrative Appeals Review Officer
Southwestern Division (CESWD-PD-O)
U.S. Army Corps of Engineers
1100 Commerce Street, Suite 831
Dallas, Texas 75242-1317
Phone: 469-216-8324
Email: Jamie.r.hyslop@usace.army.mil

SECTION II – REQUEST FOR APPEAL or OBJECTIONS TO AN INITIAL PROFFERED PERMIT

REASONS FOR APPEAL OR OBJECTIONS: (Describe your reasons for appealing the decision or your objections to an initial proffered permit in clear concise statements. Use additional pages as necessary. You may attach additional information to this form to clarify where your reasons or objections are addressed in the administrative record.)

ADDITIONAL INFORMATION: The appeal is limited to a review of the administrative record, the Corps memorandum for the record of the appeal conference or meeting, and any supplemental information that the review officer has determined is needed to clarify the administrative record. Neither the appellant nor the Corps may add new information or analyses to the record. However, you may provide additional information to clarify the location of information that is already in the administrative record.

RIGHT OF ENTRY: Your signature below grants the right of entry to Corps of Engineers personnel, and any government consultants, to conduct investigations of the project site during the course of the appeal process. You will be provided a 15-day notice of any site investigation and will have the opportunity to participate in all site investigations.

_____ Signature of appellant or agent.	Date:
Email address of appellant and/or agent:	Telephone number:

ATTACHMENT 6

LISTED SPECIES INFORMATION

GROVES DETENTION BASIN PROJECT
BAT SURVEYS

Groves, Jefferson County, TX

Prepared for
LJA Environmental Services

Prepared by:

Ecosystem Planning and Restoration
17575 N. Eldridge Parkway
Tomball, TX 77377
www.eprusa.net

October 23, 2024

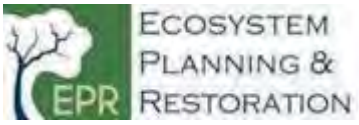


TABLE OF CONTENTS

This report contains the results of the federally proposed Endangered tricolored bat (*Perimyotis subflavus*; PERSUB) summer presence/absence survey performed by Ecosystem Planning and Restoration (EPR) for the Groves Detention Basin Project in Groves, Jefferson County, TX (Appendix A, Figure 1).

PROJECT DESCRIPTION

The Groves Detention Project is a 48-acre floodwater detention basin located in Groves, Texas that contains potentially suitable habitat for PERSUB (Appendix A, Figure 1). The project is sponsored by the Jefferson County Drainage District No. 7 and will be funded in part by a Federal Emergency Management Agency (FEMA) grant. The Project Area consists of 28.1 acres of forest and 19.9 acres of open area consisting of maintained herbaceous vegetation and recently demolished school buildings. No streams were observed on the site though there is a man-made concrete ditch (Atlantic Canal) that forms the southern boundary of the Project Area and contained shallow (approximately 4 inches) flowing water during the site visit. The canal is approximately 13 feet wide at the ordinary high-water mark. No wetlands or ponds are present in the Project Area. The forested areas are dominated by invasive Chinese tallow (*Triadica sebifera*). green ash (*Fraxinus pennsylvanica*), and sugar hackberry (*Celtis laevigata*). Non-forested areas are maintained native coastal grasses and herbaceous vegetation. Clearing is planned as part of site preparation, but the clearing schedule has not been established. Existing culverts within or adjacent to the site have been identified and were assessed for evidence of roosting bats. However, the removal or extension of culverts is not part of the proposed project.

METHODS

The presence/absence survey was conducted in accordance with the U.S. Fish and Wildlife Service's (USFWS) 2024 Range-wide Indiana Bat and Northern Long-eared Bat Survey Guidelines (Guidelines). This survey utilized a two-phased approach: Phase 1) desktop and field-based habitat assessments, and Phase 2) acoustic surveys. Full spectrum acoustic detectors were deployed during field assessments and resulting data were processed using Kaleidoscope Pro Version 5.6.8 software. Qualified EPR personnel carried out all phases of the survey and specific roles are summarized in Table 1; resumes for relevant staff are provided in Appendix B. Heather Wallace (Native Endangered & Threatened Species Recovery Permit ES81430B) oversaw the project activities and performed the acoustic analysis.

Table 1. Personnel Involved in PERSUB Acoustic Presence/Absence Surveys and Analyses for Groves Detention Basin Project.

Personnel	Desktop Analysis	Field Assessment	Detector Deployment	Acoustic Analysis	Report Preparation
Heather Wallace Senior Biologist	X			X	X
Dominique DiLandro Biologist		X	X		
John Williams Environmental Scientist	X	X	X		

HABITAT ASSESSMENT

Desktop Analysis

Prior to conducting field work, a desktop land cover analysis was performed to identify suitable PERSUB habitat within the Project Area. Specifically, aerial photography and Google Earth imagery were reviewed to determine areas that may be used by PERSUB for foraging and roosting. Determinations were based on forest patch size, proximity to closed-canopy forests, and landscape features that may be used by bats commuting between roosting and foraging habitats (e.g., forested tracts, wetlands, streams). Edges of larger forest openings, edges of riparian areas, and open water were noted as these features seem to be preferred by PERSUB. Dense, unbroken forests, narrow road cuts, and areas highly fragmented by residential or commercial developments were generally not considered suitable PERSUB habitat. The entirety of the Project Area (48 acres) was determined to be possible suitable habitat as it consists of forest habitat interspersed with clearings and associated edge habitat that could be utilized as roosting, foraging, or commuting areas by PERSUB.

EPR also reviewed the land cover imagery for the presence of any areas that could potentially support natural hibernacula, including karst or similar geological formations. No natural hibernacula or abandoned mines were identified in the Project Area.

Maps and GPS coordinates were produced for use in the field that demarcated suitable habitat within the Project Area, as well as the number and proposed locations of acoustic detectors required to survey the area.

Field Assessment

On September 17, 2024, EPR conducted a site visit to verify the presence of and describe the PERSUB habitat identified during the desktop analysis. Detector Sites were confirmed on September 17, 2024, at two locations (Appendix A, Figure 2). General habitat descriptions at each site are provided below in Table 2. The Phase 1 Summer Habitat Assessment and approved Phase 2 Study Plan are included in Appendix C.

Table 2. Detector Site Descriptions and Survey Data.

Site	Description	GPS Coordinates	Survey Dates	Survey Hours
1	The detector setup was placed in a mowed field approximately 15 feet from the woodland edge. The microphone was oriented parallel to the woodland edge and directed away from the northern study area boundary. The microphone was elevated approximately 12 feet above the ground. Placement of the detector setup matched the approved study plan.	29.94834, -93.89315	Nights of September 17-23, 2024	Roughly 30 minutes before sunset (~18:50) to 30 minutes after sunrise (~07:35)
2	The detector setup was placed in a mowed field approximately 15 feet from the woodland edge. The microphone was oriented parallel to the woodland edge and directed away from the southeastern study area boundaries and away from TX-73 and TX-87. The microphone was elevated approximately 12 feet above the ground. Placement of the detector setup varied slightly from the USFWS approved study plan. This was done intentionally to follow recommendations made by the USFWS representative to limit the roads' interference on sound quality. Therefore, the detector setup was moved 75 meters away from TX-73 and TX-87, still meeting the 200-meter minimum distance from the project's other acoustic site.	29.94531, -93.89247		

ACOUSTIC PRESENCE/ABSENCE SURVEYS

Detector Type

Wildlife Acoustics Song Meter Mini Bat 2 ultrasonic bat detector/recorders equipped with omnidirectional ultrasonic built-in microphones were used for the duration of the survey effort. Detectors were updated to the latest firmware version (4.5) prior to deployment set to record in full spectrum format from 30 minutes before sunset to 30 minutes after sunrise and files were saved on internal SD cards. The detectors are fully waterproof and were powered by four internal AA alkaline batteries. At the time of deployment, the functioning of each microphone was tested by pairing the detectors, opening the utilities menu and selecting “test microphone”, then rubbing fingers in front of the microphone and confirming the amplitude changed and the value was higher than -32 dB. Log files were reviewed when units were pulled to verify proper functioning for the duration of the survey.

Detector Deployment

Two detectors were positioned in suitable habitat within the Project Area to ensure that potential habitats were sampled in accordance with the Guidelines (Appendix A, Figure 2). Two detectors were deployed on September 17, 2024, and remained in place for seven calendar nights in the following habitat type:

- Open grassy areas with low growing, unmaintained herbaceous vegetation adjacent to forest edges.

Omnidirectional microphones were mounted at the top of poles approximately 3.66 meters (12 feet) above the ground surface to avoid herbaceous vegetation and to elevate the microphones' cone of detection. Tripods were used to stabilize the poles. Detectors were placed along forest edges in line with suspected flight paths to increase the number of call pulses and quality of recordings. Specific orientation was determined by microsite conditions. Appendix D contains acoustic detector data sheets, including Site conditions, maps, and photographs showing detector placement, surrounding habitat, and airspace around each microphone, and Figure 2 (Appendix A) and the inset maps on each data sheet show the detector locations and orientation of each microphone.

Following is a summary of the acoustic presence/absence survey effort:

- The total Project Area was approximately 48 acres.
- The area of the Project with suitable PERSUB habitat was approximately 48 acres.
- Two detectors were deployed on September 17, 2024 for 7 calendar nights for a total of 14 detector nights.

ANALYSIS

EPR analyzed the recorded data according to the Guidelines, per Phase 2, Step 6 (Automated Acoustic Analysis). The call files were analyzed using Kaleidoscope Pro (KPro) software. The following parameters were used:

- KPro Version 5.6.8
- Bats of North America Version 5.4.0
- -1 More Sensitive (Liberal)
- Texas region
- All other settings were default

The following species were included in the Auto ID for Bats:

- *Eptesicus fuscus*
- *Corynorhinus townsendii (=Corynorhinus rafinesquii)*
- *Lasiurus borealis* (LASBOR)
- *Lasiurus cinereus*
- *Lasiurus intermedius* (LASINT)
- *Lasiurus seminolus* (LASSEM)
- *Lasionycteris noctivagans*
- *Myotis austroriparius*
- *Nycticeius humeralis*
- *Nyctinomops macrotis*
- *Perimyotis subflavus*
- *Tadarida brasiliensis* (TADBRA)

Antrozous pallidus, Euderma maculatum, Eumops perotis, Lasiurus blossevillii, Lasiurus ega, Lasiurus xanthinus, Mormoops megalophylla, Myotis californicus, Myotis ciliolabrum, Myotis thysanodes, Myotis velifer, Myotis volans, Myotis yumanensis, Nyctinomops femorosaccus, Parastrellus hesperus were unselected from the Texas list because the project is situated outside the accepted ranges of these species. KPro does not currently include a selection for *C. rafinesquii,* so *C. townsendii* was used as a surrogate for this species. Zero crossing files were generated in the output folder to provide an additional resource for manual vetting, if needed. Results were summarized by detector site and by night.

RESULTS

All weather requirements (including temperature, precipitation, and average wind speed) were met during all nights of the survey (Table 3). Historic weather data was obtained for the nearby NOAA weather station at Jack Brooks Regional Airport via Weather Underground (www.weatherunderground.com).

Table 3. Weather Conditions During First Five Hours of Sampling, September 17-23, 2024.

Night	High Temp (ºF)	Low Temp (ºF)	Max Sustained Wind Speeds (mph)	Notes
20240917	89	74	7	None
20240918	88	75	10	Approx. 4 minutes of 10 mph winds before decreasing to 9 mph
20240919	90	75	12	Approx. 5 minutes of 12 mph winds before decreasing to 8 mph
20240920	92	75	7	None
20240921	89	74	12	Approx. 12 minutes of 12 mph winds before decreasing to 8 mph
20240922	88	73	8	None
20240923	85	74	8	None

Between the nights of September 17-23, 2024, a total of 673 bat passes were recorded at the two sites (Table 4). Calls representing twelve bat species were identified by KPro. A total of three passes were classified as PERSUB by KPro and all passes were associated with Site 2. Maximum Likelihood Estimates (MLEs) signify a *p*-value less than 0.05 for this species at Site 2 on the night of September 21, indicating that PERSUB presence is considered likely within the Project Area (Table 5).

Table 4. Summary of Bat Passes Recorded on the Nights of September 17-23, 2024.

Site	Night	CORTOW	EPTFUS	LASBOR	LASCIN	LASINT	LASNOC	LASSEM	MYOAUS	NYCHUM	NYCMAC	PERSUB	TADBRA	NOID
1	20240917	0	1	1	3	7	1	0	0	0	0	0	9	2
	20240918	0	0	0	9	6	1	0	2	0	0	0	6	0
	20240919	0	0	0	0	3	0	0	0	0	0	0	3	0
	20240920	0	0	0	0	5	2	0	0	0	0	0	7	0
	20240921	0	0	0	1	3	2	0	0	0	0	0	11	3
	20240922	0	1	0	8	9	8	0	1	0	0	0	14	1
	20240923	0	1	0	3	5	8	1	0	0	0	0	0	16
2	20240917	0	0	0	1	13	6	0	0	0	0	0	9	3
	20240918	0	1	4	3	9	8	1	0	1	1	0	25	7
	20240919	0	1	1	3	0	1	2	0	0	1	0	22	5
	20240920	0	2	2	10	14	23	1	1	0	4	1	160	8
	20240921	0	0	0	1	7	1	0	0	0	0	2	20	1
	20240922	0	3	0	6	9	18	0	0	0	1	0	50	3
	20240923	0	0	0	3	4	4	0	0	0	0	0	0	21

Note 1: CORTOW= *Corynorhinus townsendii*; Townsend's big-eared bat, EPTFUS=*Eptesicus fuscus*; big brown bat, LASBOR=*Lasiurus borealis*; eastern red bat, LASCIN=*Lasiurus cinereus*; hoary bat, LASINT=*Lasiurus intermedius*; Northern yellow bat, LASNOC=*Lasionycteris noctivagans*; silver-haired bat, LASSEM=*Lasiurus seminolus*; Seminole bat, MYOAUS=*Myotis austroriparius*; southeastern myotis, NYCHUM=*Nycticeius humeralis*; evening bat, NYCMAC=*Nyctinomops macrotis*; big free-tailed bat, PERSUB=*Perimyotis subflavus*; tricolored bat, TADBRA=*Tadarida brasiliensis*; Brazilian free-tailed bat, NOID=files the classifier chose not to classify

Table 5. Summary of Maximum Likelihood Estimates (MLEs) for Species Presence by KPro on the Nights of September 17-23, 2024.

Site	Night	CORTOW	EPTFUS	LASBOR	LASCIN	LASINT	LASNOC	LASSEM	MYOAUS	NYCHUM	NYCMAC	PERSUB	TADBRA
1	20240917	1	1	0.130666	0.305537	0.066177	1	1	1	1	1	1	**0.000518**
	20240918	1	1	1	**1.06E-05**	**0.036186**	1	1	**0.0000019**	1	1	1	0.155869
	20240919	1	1	1	1	0.188626	1	1	1	1	1	1	0.056243
	20240920	1	1	1	1	0.149956	1	1	1	1	1	1	**0.000482**
	20240921	1	1	1	1	0.973017	1	1	1	1	1	1	**2E-07**
	20240922	1	1	1	**0.004342**	0.079959	0.796645	1	**0.0013624**	1	1	1	**9.66E-05**
	20240923	1	1	1	0.771275	0.901969	0.474588	0.460481	1	1	1	1	**1E-07**
2	20240917	1	1	1	0.998395	**0.000222**	0.828368	1	1	1	1	1	**0.002641**
	20240918	1	1	**0.000926**	0.990595	0.588833	0.976794	1	1	1	**0.006975**	1	**0**
	20240919	1	1	0.453914	0.78533	1	1	0.503648	1	1	**0.008638**	1	**0**
	20240920	1	1	**0.029833**	1	1	1	1	**0.0135323**	1	0	0.81772	**0**
	20240921	1	1	1	1	0.606898	1	1	1	1	1	**0.02227**	**0**
	20240922	1	1	1	0.966168	1	0.494028	1	1	1	**0.01041**	1	**0**
	20240923	1	1	1	0.999848	0.760271	1	0.839903	**0.0027928**	0.932054	**0.005241**	1	**0**

Note 1: CORTOW= *Corynorhinus townsendii*; Townsend's big-eared bat, EPTFUS=*Eptesicus fuscus*; big brown bat, LASBOR=*Lasiurus borealis*; eastern red bat, LASCIN=*Lasiurus cinereus*; hoary bat, LASINT=*Lasiurus intermedius*; Northern yellow bat, LASNOC=*Lasionycteris noctivagans*; silver-haired bat, LASSEM=*Lasiurus seminolus*; Seminole bat, MYOAUS=*Myotis austroriparius*; southeastern myotis, NYCHUM=*Nycticeius humeralis*; evening bat, NYCMAC=*Nyctinomops macrotis*; big free-tailed bat, PERSUB=*Perimyotis subflavus*; tricolored bat, TADBRA=Tadarida brasiliensis; Brazilian free-tailed bat, NOID=files the classifier chose not to classify.
Note 2: Maximum Likelihood Estimates (MLEs) interpretation – values <0.05 indicates there is 95% confidence that the species is present. Bold values indicate significance, and high confidence level in species presence.

QUALITATIVE ANALYSIS OF CALLS

Per Phase 2, Step 7 of the Guidelines, for each detector site-night KPro identified PERSUB likely (i.e. P<0.05, all High Frequency (HF, i.e. ≥35 kHz) call files from that site-night, regardless of MLE (Maximum Likelihood Estimate) value and including NoID files, were manually vetted. Heather Wallace, a trained bat acoustic expert, performed the manual vetting. Keys provided during various acoustic identification training classes (including Vesper Bat Detection Services, Bat Conservation and Management, Titley Scientific, and Bat Survey Solutions) were referenced during the manual vetting process.

September 21 was the only night when KPro identified PERSUB likely (P<0.02) at either Site. Ms. Wallace reviewed all calls identified by the automated analysis (KPro) as LASBOR, LASSEM, MYOAUS, NYCHUM, or PERSUB as well as all files labelled "NoID", and any additional call files from species not listed above that displayed a minimum frequency (Fmin) of 35 kHz recorded over that night. Additional files before and after the calls KPro identified as PERSUB were also vetted. In total, 9 call files were manually vetted. None of the manually vetted call files, including the two identified as PERSUB by KPro, were identified as PERSUB. The table in Appendix E lists the calls files, results of manual vetting, and comments providing the rationale for any deviations from the identification provided by KPro. Supporting screenshots are also included in Appendix E.

File 2MU04210_20240922_002658.wav, identified by KPro as PERSUB, did not contain enough quality pulses to perform a manual identification to species. Only three pulses were included in the file, and they were incomplete and obscured by noise, suggesting the bat was far from the microphone. Evaluating call files recorded before and after a target call file can sometimes provide support to refute the identification of an autoclassifier. Call files 2MU04210_20240922_002148.wav and 2MU04210_20240922_003944.wav were recorded roughly 5 minutes before and 13 minutes after the subject call file and were identified by KPro as LASINT. Ms. Wallace confirmed this identification. It is debatable whether these calls were recorded close enough in time to the subject call to use them as any basis for identification of the subject call.

File 2MU04210_20240922_020851.wav, identified by KPro as PERSUB was determined to be a *Lasiurus* species, likely LASBOR or LASSEM mainly due to the bouncy nature of the series of call pulses. The first few pulses appear to be approach phase call pulses and were therefore disregarded. The Fmin associated with the remaining search phase call pulses fall within range for both LASBOR, LASSEM, and PERSUB. Some pulses are bilinear and nearly flat at 40 kHz, indicative of PERSUB, while others maintain more slope. Some pulses are upturned at the end, which is indicative of LASBOR or LASSEM. The duration of the pulses are generally 7-8 milliseconds (ms), indicative of LASBOR or LASSEM and no pulses approach 12 ms, which would be indicative of PERSUB; ultimately, the bouncy nature of the entire sequence in both compressed and real time views lends itself to a *Lasiurus* species rather than PERSUB.

Call files recorded before and after file 2MU04210_20240922_020851.wav were manually vetted. File 2MU04210_20240922_015929.wav, recorded roughly 10 minutes prior to the subject call was identified by KPro as TADBRA, but Ms. Wallace identified the call as (insect) Noise. Looking at the previous call file attributed to a bat by KPro, File 2MU04210_20240922_015016.wav was recorded roughly 18 minutes prior to the subject call. Ms. Wallace also identified this call as (insect) Noise. Looking at the call file prior to that, which was attributed to a bat by KPro, File 2MU04210_20240922_015001.wav, recorded roughly 19 minutes prior to the subject call was identified as TADBRA, and Ms. Wallace confirmed this identification. Due to the relatively long time between the subject call and the previous bat call, the identification of the previous calls does not lend much support to the identification of the subject call. File 2MU04210_20240922_020907.wav was recorded roughly 16 seconds after the subject call and was identified by KPro as NoID. Ms. Wallace attributed the call to LASBOR/LASSEM due to the bouncy nature of the pulses and the higher Fmin (36 kHz) than would be expected for LASINT. Due

to the relatively short time between the recording of the subject call and the recording of the subsequent bat call, the identification of the subsequent call as a *Lasiurus* species lends support to identification of the subject call as a *Lasiurus* species also, rather than PERSUB.

LASBOR and LASSEM can have highly variable calls depending upon habitat and behavior, and calls of these species are essentially indistinguishable from one another (thus the classification as LASBOR/LASSEM during manual vetting). When in a more cluttered habitat, these species produce shorter duration, more steeply sloped variants. As they move into more open habitats their calls become narrower in bandwidth, lower in slope and longer in duration. Because the detector at Site 2 was located along a woodland edge, it is not unreasonable to expect both call types as individuals move from forested to open habitat. This may explain the highly variable nature of the pulses in File 2MU04210_20240922_020851.wav and lends further support to the identification of the species as a LASBOR or LASSEM rather than PERSUB.

Log, setting, and metadata files are available upon request, and all acoustic data files will be maintained on EPR servers for a minimum of seven years.

STRUCTURE SURVEYS

All bridges and pipes or culverts that met minimum size criteria (3 feet in diameter by 23 feet in length or larger) within the Project Area (Appendix A, Figure 3) were evaluated for evidence of bat use. Bridge/Culvert Bat Assessment Forms (Appendix F) were completed for each structure during the site visit on September 17, 2024. Seven culverts and no bridges were surveyed, and no evidence of roosting bats was observed on any of the structures during the surveys (Table 6).

Table 6. Structures Investigated for this Report.

EPR ID	Structure Type (W x H x L)	Location	Survey Date	Evidence of Bat Use
C1	1 Concrete Pipe: 3 ft. x 3 ft. x 30 ft	29.947569 -93.896862	20240917	No
C2	2 Reinforced Concrete Box Culvert: 12 ft. x 7 ft. x 35 ft	29.947302 -93.896567	20240917	No
C3	1 Concrete Pipe: 3.5 ft. x 3.5 ft. x >40 ft	29.947235 -93.896550	20240917	No
C4	2 Reinforced Concrete Box Culverts: 12 ft. x 7 ft. x 35 ft	29.946667 -93.895663	20240917	No
C5	1 Concrete Pipe: 3 ft. x 3 ft. x >40 ft	29.946667 -93.895663	20240917	No
C6	1 Reinforced Concrete Box Culvert: 5 ft. x 5 ft. x 50 ft	29.943906 -93.891881	20240917	No
C7	1 Reinforced Concrete Box Culvert: 11 ft. x 7 ft. x 72 / 84 / 96 ft	29.943832 -93.891534	20240917	No

CONCLUSION

The Project Area provides suitable roosting and foraging habitat for PERSUB. No evidence of bat

use was noted during the structure checks. Although KPro identified PERSUB likely ($P<0.05$) at Site 2 on September 21, 2024, manual vetting of high frequency and NoID call files from that night did not result in identification of the species. Therefore, it can be concluded that PERSUB presence is considered unlikely within the Project Area. The results of this survey will be reported to USFWS.

APPENDIX C

PHASE 1 HABITAT ASSESSMENT
PHASE 2 APPROVED STUDY PLAN

BAT HABITAT ASSESSMENT DATASHEET

Project Name:	Groves Detention Basin Project	Date:	9/17/2024
Township/Range/Section:	Groves, Texas		
Lat Long/UTM/Zone:	29.946832°, -93.893193°	Surveyor:	D. DiLandro, J. Williams

Brief Project Description

The Groves Detention Project is a 48-acre floodwater detention basin located in Groves, Texas.

Project Area

	Total Acres	Forested Acreage		Open Acres
Project	48	28.1		19.9
Proposed Tree Removal Acreage	Completely Cleared	Partially Cleared	Preserve Acreage (no clearing)	
	28.1	0	0	

Vegetation Cover Types

Pre-Project	**Post-Project**
Forested areas dominated by invasive Chinese Tallow, Green Ash, and Sugar Hackberry. Nonforested areas are maintained native coastal grasses and herbaceous vegetation. At the time of the assessment, the school buildings on the far western portion of the site had been demolished and debris removed, with active leveling taking place.	The proposed project consists of clearing and excavating the site as part of the construction of a floodwater detention basin.

Landscape within 5 mile Radius

Forested areas are present within a 5 mile radius in nearly all directions from the site but are not connected. The proposed project location is within a largely urban area, and remaining undeveloped tracts are small and isolated. The nearest forest tract is directly south of the site but is fragmented and likely dominated by invasive tallow.

Immediately adjacent to the northwestern and western portions of the site is residential development. Northeast of the site is a large industrial facility. SH87/73 borders the southern portion of the property.

Proximity to Public Land

The Lower Neches WMA is approximately 2.6 miles to the north of the project site; JD Murphree WMA is approximately 8.9 miles to the southwest.

Use additional sheets to assess discrete habitat types at multiple sites in a project area

Include a map depicting locations of sample sites if assessing discrete habitats at multiple sites in a project area. A single sheet can be used for multiple sample sits if habitat is the same.

Sample Site Description
Sample Site No.(s): 1 and 2

Water Resources at Sample Site				
Stream Type	Ephemeral	Intermittent	Perennial	Describe existing condition of water sources: Surface water was not observed on site. A man-made, concrete ditch (Atlantic Canal) is present along the south boundary and contained shallow, flowing water at the time of the site assessment.
(# and length)	N/A	N/A	N/A	
Pools/Ponds	N/A	Open and Accessible?		
(# and size)	N/A	N/A	N/A	
Wetlands	Permanent	Seasonal		
(approximate ac.)	N/A	N/A		

Forest Resources at Sample Site				
Closure/Density	Canopy (>50')	Midstory (20-50')	Understory (<20')	1=1-10%
	1	5	2	2=11-20%
Dominant Species of Mature Trees	Chinese Tallow (invasive); Green Ash, sugar hackberry			3=21-40% 4=41-60%
% Trees w/ Exfoliating Bark	1	1	1	5=61-80% 6=81-100%
Size Composition of	Small (3-8 in)	Midstory (9-15 in)	Large (>15 in)	
Live Trees (%)	2	5	2	
No. of Suitable Snags	1			

Standing dead trees with exfoliating bark, cracks, crevices, or hollows. Snags without these characteristics are not considered suitable.

IS THE HABITAT SUITABLE FOR TRICOLORED BATS? Yes, see below.

Additional Comments: Habitat was suitable for tricolored bats given the presence of continuous forest, forested edges, old field, fence rows, small to large diameter trees, culverts, and surface water. A large man-made canal with surface water is present along the sothwestern boundary of the project area. Nonforested areas within the project area appeared to be periodically maintained, but contained typical native and local grassland species. Medium to large diameter green ash (Fraxinus pennsylvanica) were present within the forested portion, although the dominant tree was invasive Chinese tallow (Triadica sebifera).

Attach aerial photo of project site with all forested areas labeled and a general description of the habitat.

Photographic Documentation: habitat shots at edge and interior from multiple locations; understory/midstory/canopy; example of potential suitable snags and live trees; water sources

U.S. Fish and Wildlife Service

Study Plan Form for Bat Surveys and Monitoring (v. 1.0)[1]

PROJECT & SURVEY INFORMATION

Project Name: Groves Detention Basin Project

Proposed Survey Start Date: 9/5/2024

Project Proponent's Name (e.g., client/company/institution): Jefferson County Drainage District #7

Project Location: State(s): TX

County(s): Jefferson

Latitude: 29.946793

Longitude: -93.892278

REQUIRED: Attach or provide links to Google Earth® KMZ files (preferred) and/or shapefiles (mapping must show project boundaries, impacted forest habitat (if known) and all proposed survey sites)

Files are attached: Yes ☑ No ☐

File Links: Groves Detention Basin_SP_KMZ

Project Summary. In the space provided below, please provide a concise statement of what the project proponent is proposing to do including any activities that will permanently or temporarily alter the current environment and existing habitat features).

The Groves Detention Project is a 48-acre floodwater detention basin located in Groves, Texas. The project is sponsored by the Jefferson County Drainage District No. 7 and will be funded in part by a FEMA grant. Based on preliminary investigations, the site contains potential suitable forested habitat and tree clearing is planned as part of site preparation. The clearing schedule has not been established. Existing culverts within or adjacent to the site have been identified and will be assessed for evidence of roosting bats. However, the removal or extension of culverts is not part of the proposed project.

CONTACT INFORMATION

Project Manager/Primary Point of Contact (POC): John Williams

Phone: 361-676-8138

Field Survey Crew Leader (if different from POC): Dominique DiLandro

Cell Phone: 361-676-8138

Institution/Company Name: Ecosystem Planning and Restoration

Mailing Address: 17575 N. Eldridge Parkway, Tomball, TX 77377

POC Email Address: JWilliams@eprusa.net

USFWS Sec. 10 Permit No.(s) (if applicable): ES81430B

State Permit No.(s) (if applicable): NA

[1] Unless otherwise directed by the Service, surveyors *may* complete this fillable form, in lieu of a traditional narrative format, and submit it (and supporting files) to the Ecological Services Field Office in the state(s) where the work is to be completed (https://www.fws.gov/our-facilities). Use of this form is not a requirement at this time. Our goal is to improve pre-survey coordination and to expedite the Field Office review and approval process. Please submit your study plan at least 15 working days in advance of your proposed survey start date. Suggestions for improving this document may be sent to Indiana_bat@fws.gov.

Have project proponents been informed that abiding by protective time-of-year restrictions (where available) may be sufficient to avoid take of bats and (in some cases) may negate the need for a bat survey? Yes☑ No☐

Have project proponents been informed that the Service does not require presence/probable absence surveys for federally listed species and that presence can be assumed in a project area containing suitable habitat? Yes☑ No☐

Will this survey be conducted on private or public lands? *(Check both if applicable)*: Private☑ Public☐

Has permission of all necessary landowners/managing agencies been obtained? Yes☑ No☐

If no, explain:_____

Does this project have a federal nexus? Yes☑ No☐ Unsure☐

If yes, explain: The project is sponsored by the Jefferson County Drainage District No. 7 and will be funded in part by a FEMA grant.

IPaC[2] Consultation Code (if applicable): 2024-0135959

Purpose of Survey: Official P/A Survey☑ Research☐ Monitoring☐
Educational Outreach/Training☐ Other: _____

Survey Target Species: Indiana bat (IBAT)☐ Northern long-eared bat (NLEB)☐
Tricolored bat (TCB)☑ Other: _____

Has a Phase-1 Habitat Assessment* of the project area been conducted? Yes☐ No☑
If yes, how was the habitat assessment conducted? On-the-ground:☐ Aerial imagery☐ Combo☐
*(*if available, attach a written report)*

Is suitable habitat present (or assumed present) for all "target" species? Yes☑ No☐

If no, explain: _____

Does this project fall within the outer-tier of any "target" species known home range? Yes☐ No☐ Unsure☑

If yes, which species: _____

Project Configuration

Is this project **linear** (>1 km in total length)? Yes☐ No☑ Combo☐ Unsure☐

If yes, how many 1-km sections containing suitable IBAT/NLEB habitat in km (mi) will be impacted? _____

Is this project **non-linear**? Yes☑ No☐ Combo☐ Unsure☐

If yes, how many acres of suitable IBAT/NLEB habitat is in the overall project area? 48

If yes, how many acres of suitable IBAT/NLEB habitat will be directly impacted/cleared? 48

METHODOLOGY & SURVEY LEVEL OF EFFORT[3]

ACOUSTICS

Total number of detector sites proposed to be surveyed: 2 Number of detector nights/site: 7

Total number of detector nights for entire survey: 14

[2] https://ipac.ecosphere.fws.gov/
[3] Survey level of effort (acoustic or netting) must be spread over at least two calendar nights/survey site.

Total proposed number of calendar nights to complete the entire survey: 7

Detector(s) (Brand, Model): Wildlife Acoustics SM Mini Bat 2 Microphone(s): directional ☐ omnidirectional ☑

Recording Format: Full Spectrum ☑ Zero-Crossing ☐

FWS-Approved[4] Acoustic Bat ID Software: KPro vers. 5.6.8 KPro Classifier, NA vers. 5.4.0 BCID vers.____
Other Candidate Programs (e.g., Sonobat) vers.: _____

Species to be included for automatic software ID classification analysis:

EPFU ☑ CORA ☑ COTO ☐ LABO ☑ LACI ☑ LANO ☑ LASE ☑ TABR ☑ MYCI ☐ MYEV ☐ MYGR ☐ MYLU ☐
MYLE ☐ MYSE ☐ MYSO ☐ MYTH ☐ MYVO ☐ NYHU ☑ PESU ☑ Others: DAIN, NYMA, MYAU

Will qualitative analysis (i.e., manual vetting) be used? Yes ☐ No ☑ Unsure ☐

Name(s) of qualified biologist(s) who will be conducting qualitative/manual acoustic identifications (attach resume or link with qualifications): _____

MIST-NETTING

Total number of net sites to be surveyed: 0 Total number of net nights/site: _____

Total number of net nights for entire survey (No. of sites X No. of net nights/site): _____

Total proposed number of calendar nights to complete the entire survey: _____

A) Maximum number of net set-ups that will be operated/checked (10-min interval) on a given calendar night at a given survey site: _____
B) Minimum Number of personnel present to operate/check X (see A) net set-ups on a given site: _____
C) Proposed Staffing Rate (A divided by B): _____

Staffing Rate

Number of Section 10-permitted biologists per net site (or state-permitted in USFWS R5): _____

Will any bats be banded? Yes ☐ No ☐

If yes, describe your proposed bands (color and letter-numbers) and banding scheme: _____

Will any biological samples be collected from captured bats (e.g., guano, hair, swab, wing punch)? Yes ☐ No ☐

If yes, explain: _____

RADIO-TRACKING

Will any bats be radio-tagged and tracked? Yes ☐ No ☑

If yes, please answer following:
Which species will be radio-tagged? _____
Name of USFWS Section 10 permitted biologist(s) who will apply transmitter(s): _____
Make/model and approximate weight of transmitter(s) to be used: _____
Estimated life-span of transmitters to be used: _____
Frequency range (MHz) of transmitters (e.g., 150.xxx or 172.xxx): _____
If radio-tracking multiple targeted bats/species, what criteria will be used in selecting which bats will be tracked?
_____
Will all radio-tagged bats be tracked (min. of 4-hrs. search effort/day) to their diurnal roosts for the minimum recommended period of 7 days? Yes ☐ No ☐

[4] https://www.fws.gov/media/automated-acoustic-bat-id-software-programs

If no, explain: _____

Will night-time foraging data/telemetry be collected? Yes☐ No☐

EMERGENCE SURVEYS

After diurnal roost sites of radio-tagged bats are identified, will emergence surveys be conducted at each identified roost (assuming landowner permission is obtained)? Yes☐ No☐

If yes, how many emergence surveys/roost? _____

Have you identified a small number (e.g., ≤10) of potentially suitable roost trees* that you propose to conduct emergence surveys for? Yes☐ No☐

*(*If yes, provide photographs of each tree documenting that all of the tree can be observed by the surveyor along with coordinates (lat/long and/or KML/shapefile) of all trees to be surveyed.)*

POTENTIAL HIBERNACULA SURVEYS

Are you aware of any known hibernacula used by the target species within the project area itself or nearby?

Yes☐ No☑ Unknown☐

If yes or unknown, list sites or explain: _____

Has your desktop analysis identified any natural or man-made features that could be used as a hibernaculum by any of the target bat species? Yes☐ No☑ Unknown☐

If yes, underground features (e.g., caves, mines, tunnels, bunkers, cisterns) present: Yes☐ No☐

If yes, above-ground features* (e.g., crawl spaces) present: Yes☐ No☐

If unknown, explain: _____

Are you requesting approval of a field survey for potential hibernacula at this time? Yes*☐ No☑

*(*If yes, attach a separate narrative explaining how the project area(s) will be surveyed for potential hibernacula.)*

Are you submitting the results of a Phase 1 Habitat Assessment of potentially suitable hibernacula identified from field surveys? Yes*☐ No☑

*(*If yes, provide a Phase 1 Habitat Assessment Data Sheet for each potential hibernaculum/portal(s)[5] identified to be surveyed.)*

ADDITIONAL SURVEY INFORMATION[6]

Will the proposed bat survey deviate from the current version of the USFWS summer survey guidelines?[7] Yes☐ No☑

If yes, provide justification for any departures or modifications to the guidelines (if applicable) below:

I hereby acknowledge that the information being provided to the Service is accurate and complete as of today's date.

Signature: MARY LEE Digitally signed by MARY LEE Date: 2024.09.09 10:32:33 -05'00' Date: _____

[5] If multiple cave entrances/portals, please list all locations.

[6] Attach additional pages to this form, if needed.

[7] Proposed surveys deviating from the current IBAT & NLEB Summer Survey Guidelines will only be accepted with a thoroughly described justification. Coordinate with your local USFWS Field Office (https://www.fws.gov/our-facilities) for acceptable modifications.

APPENDIX D

ACOUSTIC SURVEY DATA SHEETS

Acoustic Survey Data Sheet

Project Name:	Groves Detention Basin Project	**Site Number:**	Site 1
Project #:	EPR0079	**Site Name:**	Site 1
State:	Texas	**Latitude:**	29.94834
County:	Jefferson	**Longitude:**	-93.89315
Nearest Town:	Groves	**Elevation (m):**	1.22

Map:

Biologist Selecting Site:	Dominique DiLandro
Biologist Deploying Detector:	John Williams
Habitat Type:	Field edge

Habitat/Site Description:

The detector setup was placed in a mowed field approximately 15 feet from the woodland edge. The microphone was oriented parallel to the woodland edge and directed away from the northern study area boundary. The microphone was elevated approximately 12 feet above the ground. Placement of the detector setup matched the approved study plan.

Comments:

None.

Acoustic Survey Data Sheet

Schedule:	30 minutes before sunset to 30 minutes after sunrise
Detector Brand:	Wildlife Acoustics
Detector Model	Song Meter Mini Bat 2
Detector Serial Number:	2MU04435
Firmware:	4.5

Detector Settings:

Used recommended manufacturer detector settings.

FS or ZC:	Full Spectrum
Mic Brand/Model:	Wildlife Acoustics: SM2 Integrated
Mic Type:	Omnidirectional
Weatherproofing:	None
Horizontal Orientation (deg):	208
Vertical Orientation (deg):	0 (parallel with ground)
Test Func Method:	Generate ultrasonic noise while viewing the status screen
Mic Height (m):	3.66
Mic Distance from Veg (m):	4.57

Site Photos:

Detector setup facing southwest

Detector setup facing northeast

ECOSYSTEM PLANNING & RESTORATION

Acoustic Survey Data Sheet

General habitat

General habitat

Acoustic Survey Data Sheet

Project Name:	Groves Detention Basin Project	**Site Number:**	Site 2
Project #:	EPR0079	**Site Name:**	Site 2
State:	Texas	**Latitude:**	29.94531
County:	Jefferson	**Longitude:**	-93.89247
Nearest Town:	Groves	**Elevation (m):**	0.91

Map:

Biologist Selecting Site:	Dominique DiLandro
Biologist Deploying Detector:	John Williams
Habitat Type:	Field edge

Habitat/Site Description:

The detector setup was placed in a mowed field approximately 15 feet from the woodland edge. The microphone was oriented parallel to the woodland edge and directed away from the southeastern study area boundaries and away from TX-73 and TX-87. The microphone was elevated approximately 12 feet above the ground. Placement of the detector setup varied slightly from the USFWS approved study plan. This was done intentionally to follow recommendations made by the USFWS representative to limit the roads' interference on sound quality. Therefore, the detector setup was moved 75 meters away from TX-73 and TX-87, still meeting the 200-meter minimum distance from the project's other acoustic site.

Comments:

None.

ECOSYSTEM PLANNING & RESTORATION

Acoustic Survey Data Sheet

Schedule:	30 minutes before sunset to 30 minutes after sunrise
Detector Brand:	Wildlife Acoustics
Detector Model	Song Meter Mini Bat 2
Detector Serial Number:	2MU04210
Firmware:	4.5

Detector Settings:

Used recommended manufacturer detector settings.

FS or ZC:	Full Spectrum
Mic Brand/Model:	Wildlife Acoustics: SM2 Integrated
Mic Type:	Omnidirectional
Weatherproofing:	None
Horizontal Orientation (deg):	322
Vertical Orientation (deg):	0 (parallel with ground)
Test Func Method:	Generate ultrasonic noise while viewing the status screen
Mic Height (m):	3.66
Mic Distance from Veg (m):	4.57

Site Photos:

Detector setup facing northwest

Detector setup facing southeast

ECOSYSTEM PLANNING & RESTORATION

Acoustic Survey Data Sheet

General habitat

General habitat

IN FILE	DATE	TIME	AUTO ID	ALTERNATE 1	ALTERNATE 2	MANUAL ID*	Comment	N	Fc	Sc	Dur	Fmax	Fmin
		representative LAIN call file											
		calls before or after those identified by KPro as PESU that were also manually vetted											
		calls identified by KPro as PESU											

APPENDIX F

STRUCTURE SURVEY DATA SHEETS
PHOTO LOGS

EPR ID: C01

Bridge/Structure Bat Assessment Form

Date & Time of Assessment 09/17/24 3:34 pm	DOT Project Number N/A	Route/Facility Carried N/A	County Jefferson County, TX
Federal Structure ID N/A	Structure Coordinates (latitude and longitude) 29.947569 -93.896862	Structure Height (approximate) 3 ft.	Structure Length 30 ft.

Structure Type (check one)

Bridge Construction Style

○ Cast-in-place		○ Pre-stressed Girder	
○ Flat Slab/Box		○ Steel I-beam	
○ Truss		○ Covered	
○ Parallel Box Beam		○ Other:	

Culvert Type

- ○ Box
- ○ Pipe/Round
- ○ Other:

Other Structure

- ○

Structure Material (check all that apply)

Deck Material	*Beam Material*	*End/Back Wall Material*
☐ Metal	☐ None	☐ Concrete
☐ Concrete	☐ Concrete	☐ Timber
☐ Timber	☐ Steel	☐ Stone/Masonry
☐ Open grid	☐ Timber	☐ Other:
☐ Other:	☐ Other:	

Creosote Evidence

- ○ Yes ○ No
- ○ Unknown

Culvert Material

- ☐ Metal
- ☒ Concrete
- ☐ Plastic
- ☐ Stone/Masonry
- ☐ Other:

Notes:

1 Round Culvert: 3 ft. x 3 ft. x 30 ft (W x H x L)
Feature over Culvert: Maintained Vegetation
Feature through Culvert: Stormwater
Depth of Water: Dry

Crossings Traversed (check all that apply)

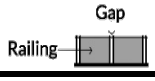
☐ Bare ground	☐ Open vegetation
☐ Rip-rap	☐ Closed vegetation
☐ Flowing water	☐ Railroad
☐ Standing water	☐ Road/trail - Type:
☐ Seasonal water	☐ Other:

Surrounding Habitat (check all that apply)

☐ Agricultural	☒ Grassland
☐ Commercial	☐ Ranching
☒ Residential-urban	☐ Riparian/wetland
☐ Residential-rural	☐ Mixed use
☒ Woodland/forested	☐ Other:

Areas Assessed (check all that apply)

Check all areas that apply. If an area is not present in the structure, check the "not present" box.
Document all bat indicators observed during the assessment. Include the species present, if known, and provide photo documentation as indicated.

Area (check if assessed)	**Assessment Notes**	**Evidence of Bats** (include photos if present)
☒ All crevices and cracks: **Bridges/culverts:** rough surfaces or imperfections in concrete **Other structures:** soffits, rafters, attic areas	☐ Not present	☐ Visual - live # dead # ☐ Guano ☐ Staining ☐ Audible ☐ Odor ☐ Photos ☐ Species
☐ Concrete surfaces (open roosting on concrete)	☒ Not present	☐ Visual - live # dead # ☐ Guano ☐ Staining ☐ Audible ☐ Odor ☐ Photos ☐ Species
☐ Spaces between concrete end walls and the bridge deck	☒ Not present	☐ Visual - live # dead # ☐ Guano ☐ Staining ☐ Audible ☐ Odor ☐ Photos ☐ Species
☐ Crack between concrete railings on top of the bridge deck 	☒ Not present	☐ Visual - live # dead # ☐ Guano ☐ Staining ☐ Audible ☐ Odor ☐ Photos ☐ Species
☐ Vertical surfaces on concrete I-beams	☒ Not present	☐ Visual - live # dead # ☐ Guano ☐ Staining ☐ Audible ☐ Odor ☐ Photos ☐ Species
☐ Spaces between walls, ceiling joists	☒ Not present	☐ Visual - live # dead # ☐ Guano ☐ Staining ☐ Audible ☐ Odor ☐ Photos ☐ Species
☐ Weep holes, scupper drains, and inlets/pipes	☒ Not present	☐ Visual - live # dead # ☐ Guano ☐ Staining ☐ Audible ☐ Odor ☐ Photos ☐ Species
☐ All guiderails	☒ Not present	☐ Visual - live # dead # ☐ Guano ☐ Staining ☐ Audible ☐ Odor ☐ Photos ☐ Species
☐ All expansion joints	☒ Not present	☐ Visual - live # dead # ☐ Guano ☐ Staining ☐ Audible ☐ Odor ☐ Photos ☐ Species

Name: Dominique DiLandro

Signature: Dominique DiLandro

EPR ID: C02

Bridge/Structure Bat Assessment Form

Date & Time of Assessment 09/17/24 3:34 pm	DOT Project Number N/A	Route/Facility Carried N/A	County Jefferson County, TX
Federal Structure ID N/A	Structure Coordinates (latitude and longitude) 29.947569 -93.896862	Structure Height (approximate) 3 ft.	Structure Length 30 ft.

Structure Type (check one)

Bridge Construction Style

○ Cast-in-place		○ Pre-stressed Girder	
○ Flat Slab/Box		○ Steel I-beam	
○ Truss		○ Covered	
○ Parallel Box Beam		○ Other:	

Culvert Type

○ Box	
○ Pipe/Round	○
○ Other:	

Other Structure

Structure Material (check all that apply)

Deck Material	*Beam Material*	*End/Back Wall Material*
☐ Metal	☐ None	☐ Concrete
☐ Concrete	☐ Concrete	☐ Timber
☐ Timber	☐ Steel	☐ Stone/Masonry
☐ Open grid	☐ Timber	☐ Other:
☐ Other:	☐ Other:	

Creosote Evidence

○ Yes ⊙ No ○ Unknown

Culvert Material

☐ Metal
☒ Concrete
☐ Plastic
☐ Stone/Masonry
☐ Other:

Notes:

1 Round Culvert: 3 ft. x 3 ft. x 30 ft (W x H x L)
Feature over Culvert: Maintained Vegetation
Feature through Culvert: Stormwater
Depth of Water: Dry

Crossings Traversed (check all that apply)

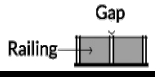
☐ Bare ground	☐ Open vegetation
☐ Rip-rap	☐ Closed vegetation
☐ Flowing water	☐ Railroad
☐ Standing water	☐ Road/trail - Type:
☐ Seasonal water	☐ Other:

Surrounding Habitat (check all that apply)

☐ Agricultural	☒ Grassland
☐ Commercial	☐ Ranching
☒ Residential-urban	☐ Riparian/wetland
☐ Residential-rural	☐ Mixed use
☒ Woodland/forested	☐ Other:

Areas Assessed (check all that apply)

Check all areas that apply. If an area is not present in the structure, check the "not present" box.
Document all bat indicators observed during the assessment. Include the species present, if known, and provide photo documentation as indicated.

Area (check if assessed)	**Assessment Notes**	**Evidence of Bats** (include photos if present)
☒ All crevices and cracks: **Bridges/culverts:** rough surfaces or imperfections in concrete **Other structures:** soffits, rafters, attic areas	☐ Not present	☐ Visual - live # dead # ☐ Guano ☐ Staining ☐ Audible ☐ Odor ☐ Photos ☐ Species
☐ Concrete surfaces (open roosting on concrete)	☒ Not present	☐ Visual - live # dead # ☐ Guano ☐ Staining ☐ Audible ☐ Odor ☐ Photos ☐ Species
☐ Spaces between concrete end walls and the bridge deck	☒ Not present	☐ Visual - live # dead # ☐ Guano ☐ Staining ☐ Audible ☐ Odor ☐ Photos ☐ Species
☐ Crack between concrete railings on top of the bridge deck 	☒ Not present	☐ Visual - live # dead # ☐ Guano ☐ Staining ☐ Audible ☐ Odor ☐ Photos ☐ Species
☐ Vertical surfaces on concrete I-beams	☒ Not present	☐ Visual - live # dead # ☐ Guano ☐ Staining ☐ Audible ☐ Odor ☐ Photos ☐ Species
☐ Spaces between walls, ceiling joists	☒ Not present	☐ Visual - live # dead # ☐ Guano ☐ Staining ☐ Audible ☐ Odor ☐ Photos ☐ Species
☐ Weep holes, scupper drains, and inlets/pipes	☒ Not present	☐ Visual - live # dead # ☐ Guano ☐ Staining ☐ Audible ☐ Odor ☐ Photos ☐ Species
☐ All guiderails	☒ Not present	☐ Visual - live # dead # ☐ Guano ☐ Staining ☐ Audible ☐ Odor ☐ Photos ☐ Species
☐ All expansion joints	☒ Not present	☐ Visual - live # dead # ☐ Guano ☐ Staining ☐ Audible ☐ Odor ☐ Photos ☐ Species

Name: Dominique DiLandro

Signature: Dominique DiLandro

EPR ID: C03

Bridge/Structure Bat Assessment Form

Date & Time of Assessment 09/17/24 3:34 pm	DOT Project Number N/A	Route/Facility Carried N/A	County Jefferson County, TX
Federal Structure ID N/A	Structure Coordinates (latitude and longitude) 29.947569 -93.896862	Structure Height (approximate) 3 ft.	Structure Length 30 ft.

Structure Type (check one)

Bridge Construction Style

○ Cast-in-place		○ Pre-stressed Girder	
○ Flat Slab/Box		○ Steel I-beam	
○ Truss		○ Covered	
○ Parallel Box Beam		○ Other:	

Culvert Type

- ○ Box
- ○ Pipe/Round
- ○ Other:

Other Structure

- ○

Structure Material (check all that apply)

Deck Material	*Beam Material*	*End/Back Wall Material*
☐ Metal	☐ None	☐ Concrete
☐ Concrete	☐ Concrete	☐ Timber
☐ Timber	☐ Steel	☐ Stone/Masonry
☐ Open grid	☐ Timber	☐ Other:
☐ Other:	☐ Other:	

Creosote Evidence

- ○ Yes ○ No
- ○ Unknown

Culvert Material

- ☐ Metal
- ☒ Concrete
- ☐ Plastic
- ☐ Stone/Masonry
- ☐ Other:

Notes:

1 Round Culvert: 3 ft. x 3 ft. x 30 ft (W x H x L)
Feature over Culvert: Maintained Vegetation
Feature through Culvert: Stormwater
Depth of Water: Dry

Crossings Traversed (check all that apply)

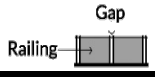
☐ Bare ground	☐ Open vegetation
☐ Rip-rap	☐ Closed vegetation
☐ Flowing water	☐ Railroad
☐ Standing water	☐ Road/trail - Type:
☐ Seasonal water	☐ Other:

Surrounding Habitat (check all that apply)

☐ Agricultural	☒ Grassland
☐ Commercial	☐ Ranching
☒ Residential-urban	☐ Riparian/wetland
☐ Residential-rural	☐ Mixed use
☒ Woodland/forested	☐ Other:

Areas Assessed (check all that apply)

Check all areas that apply. If an area is not present in the structure, check the "not present" box.
Document all bat indicators observed during the assessment. Include the species present, if known, and provide photo documentation as indicated.

Area (check if assessed)	**Assessment Notes**	**Evidence of Bats** (include photos if present)
☒ All crevices and cracks: **Bridges/culverts:** rough surfaces or imperfections in concrete **Other structures:** soffits, rafters, attic areas	☐ Not present	☐ Visual - live # dead # ☐ Guano ☐ Staining ☐ Audible ☐ Odor ☐ Photos ☐ Species
☐ Concrete surfaces (open roosting on concrete)	☒ Not present	☐ Visual - live # dead # ☐ Guano ☐ Staining ☐ Audible ☐ Odor ☐ Photos ☐ Species
☐ Spaces between concrete end walls and the bridge deck	☒ Not present	☐ Visual - live # dead # ☐ Guano ☐ Staining ☐ Audible ☐ Odor ☐ Photos ☐ Species
☐ Crack between concrete railings on top of the bridge deck 	☒ Not present	☐ Visual - live # dead # ☐ Guano ☐ Staining ☐ Audible ☐ Odor ☐ Photos ☐ Species
☐ Vertical surfaces on concrete I-beams	☒ Not present	☐ Visual - live # dead # ☐ Guano ☐ Staining ☐ Audible ☐ Odor ☐ Photos ☐ Species
☐ Spaces between walls, ceiling joists	☒ Not present	☐ Visual - live # dead # ☐ Guano ☐ Staining ☐ Audible ☐ Odor ☐ Photos ☐ Species
☐ Weep holes, scupper drains, and inlets/pipes	☒ Not present	☐ Visual - live # dead # ☐ Guano ☐ Staining ☐ Audible ☐ Odor ☐ Photos ☐ Species
☐ All guiderails	☒ Not present	☐ Visual - live # dead # ☐ Guano ☐ Staining ☐ Audible ☐ Odor ☐ Photos ☐ Species
☐ All expansion joints	☒ Not present	☐ Visual - live # dead # ☐ Guano ☐ Staining ☐ Audible ☐ Odor ☐ Photos ☐ Species

Name: Dominique DiLandro

Signature: Dominique DiLandro

EPR ID: C04

Bridge/Structure Bat Assessment Form

Date & Time of Assessment 09/17/24 3:34 pm	DOT Project Number N/A	Route/Facility Carried N/A	County Jefferson County, TX
Federal Structure ID N/A	Structure Coordinates (latitude and longitude) 29.947569 -93.896862	Structure Height (approximate) 3 ft.	Structure Length 30 ft.

Structure Type (check one)

Bridge Construction Style

○ Cast-in-place		○ Pre-stressed Girder	
○ Flat Slab/Box		○ Steel I-beam	
○ Truss		○ Covered	
○ Parallel Box Beam		○ Other:	

Culvert Type

○ Box	
○ Pipe/Round	○
○ Other:	

Other Structure

Structure Material (check all that apply)

Deck Material	*Beam Material*	*End/Back Wall Material*
☐ Metal	☐ None	☐ Concrete
☐ Concrete	☐ Concrete	☐ Timber
☐ Timber	☐ Steel	☐ Stone/Masonry
☐ Open grid	☐ Timber	☐ Other:
☐ Other:	☐ Other:	

Creosote Evidence

○ Yes ○ No ○ Unknown

Culvert Material

☐ Metal
☒ Concrete
☐ Plastic
☐ Stone/Masonry
☐ Other:

Notes:

1 Round Culvert: 3 ft. x 3 ft. x 30 ft (W x H x L)
Feature over Culvert: Maintained Vegetation
Feature through Culvert: Stormwater
Depth of Water: Dry

Crossings Traversed (check all that apply)

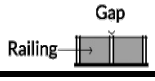
☐ Bare ground	☐ Open vegetation
☐ Rip-rap	☐ Closed vegetation
☐ Flowing water	☐ Railroad
☐ Standing water	☐ Road/trail - Type:
☐ Seasonal water	☐ Other:

Surrounding Habitat (check all that apply)

☐ Agricultural	☒ Grassland
☐ Commercial	☐ Ranching
☒ Residential-urban	☐ Riparian/wetland
☐ Residential-rural	☐ Mixed use
☒ Woodland/forested	☐ Other:

Areas Assessed (check all that apply)

Check all areas that apply. If an area is not present in the structure, check the "not present" box.
Document all bat indicators observed during the assessment. Include the species present, if known, and provide photo documentation as indicated.

Area (check if assessed)	**Assessment Notes**	**Evidence of Bats** (include photos if present)
☒ All crevices and cracks: **Bridges/culverts:** rough surfaces or imperfections in concrete **Other structures:** soffits, rafters, attic areas	☐ Not present	☐ Visual - live # dead # ☐ Guano ☐ Staining ☐ Audible ☐ Odor ☐ Photos ☐ Species
☐ Concrete surfaces (open roosting on concrete)	☒ Not present	☐ Visual - live # dead # ☐ Guano ☐ Staining ☐ Audible ☐ Odor ☐ Photos ☐ Species
☐ Spaces between concrete end walls and the bridge deck	☒ Not present	☐ Visual - live # dead # ☐ Guano ☐ Staining ☐ Audible ☐ Odor ☐ Photos ☐ Species
☐ Crack between concrete railings on top of the bridge deck 	☒ Not present	☐ Visual - live # dead # ☐ Guano ☐ Staining ☐ Audible ☐ Odor ☐ Photos ☐ Species
☐ Vertical surfaces on concrete I-beams	☒ Not present	☐ Visual - live # dead # ☐ Guano ☐ Staining ☐ Audible ☐ Odor ☐ Photos ☐ Species
☐ Spaces between walls, ceiling joists	☒ Not present	☐ Visual - live # dead # ☐ Guano ☐ Staining ☐ Audible ☐ Odor ☐ Photos ☐ Species
☐ Weep holes, scupper drains, and inlets/pipes	☒ Not present	☐ Visual - live # dead # ☐ Guano ☐ Staining ☐ Audible ☐ Odor ☐ Photos ☐ Species
☐ All guiderails	☒ Not present	☐ Visual - live # dead # ☐ Guano ☐ Staining ☐ Audible ☐ Odor ☐ Photos ☐ Species
☐ All expansion joints	☒ Not present	☐ Visual - live # dead # ☐ Guano ☐ Staining ☐ Audible ☐ Odor ☐ Photos ☐ Species

Name: Dominique DiLandro

Signature: Dominique DiLandro

EPR ID: C05

Bridge/Structure Bat Assessment Form

Date & Time of Assessment 09/17/24 3:34 pm	DOT Project Number N/A	Route/Facility Carried N/A	County Jefferson County, TX
Federal Structure ID N/A	Structure Coordinates (latitude and longitude) 29.947569 -93.896862	Structure Height (approximate) 3 ft.	Structure Length 30 ft.

Structure Type (check one)

Bridge Construction Style

○ Cast-in-place		○ Pre-stressed Girder	
○ Flat Slab/Box		○ Steel I-beam	
○ Truss		○ Covered	
○ Parallel Box Beam		○ Other:	

Culvert Type

○ Box	
○ Pipe/Round	○
○ Other:	

Other Structure

Structure Material (check all that apply)

Deck Material	*Beam Material*	*End/Back Wall Material*
☐ Metal	☐ None	☐ Concrete
☐ Concrete	☐ Concrete	☐ Timber
☐ Timber	☐ Steel	☐ Stone/Masonry
☐ Open grid	☐ Timber	☐ Other:
☐ Other:	☐ Other:	

Creosote Evidence

○ Yes ○ No ○ Unknown

Culvert Material

☐ Metal
☒ Concrete
☐ Plastic
☐ Stone/Masonry
☐ Other:

Notes:

1 Round Culvert: 3 ft. x 3 ft. x 30 ft (W x H x L)
Feature over Culvert: Maintained Vegetation
Feature through Culvert: Stormwater
Depth of Water: Dry

Crossings Traversed (check all that apply)

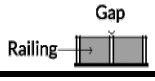
☐ Bare ground	☐ Open vegetation
☐ Rip-rap	☐ Closed vegetation
☐ Flowing water	☐ Railroad
☐ Standing water	☐ Road/trail - Type:
☐ Seasonal water	☐ Other:

Surrounding Habitat (check all that apply)

☐ Agricultural	☒ Grassland
☐ Commercial	☐ Ranching
☒ Residential-urban	☐ Riparian/wetland
☐ Residential-rural	☐ Mixed use
☒ Woodland/forested	☐ Other:

Areas Assessed (check all that apply)

Check all areas that apply. If an area is not present in the structure, check the "not present" box.
Document all bat indicators observed during the assessment. Include the species present, if known, and provide photo documentation as indicated.

Area (check if assessed)	**Assessment Notes**	**Evidence of Bats** (include photos if present)
☒ All crevices and cracks: **Bridges/culverts:** rough surfaces or imperfections in concrete **Other structures:** soffits, rafters, attic areas	☐ Not present	☐ Visual - live # dead # ☐ Guano ☐ Staining ☐ Audible ☐ Odor ☐ Photos ☐ Species
☐ Concrete surfaces (open roosting on concrete)	☒ Not present	☐ Visual - live # dead # ☐ Guano ☐ Staining ☐ Audible ☐ Odor ☐ Photos ☐ Species
☐ Spaces between concrete end walls and the bridge deck	☒ Not present	☐ Visual - live # dead # ☐ Guano ☐ Staining ☐ Audible ☐ Odor ☐ Photos ☐ Species
☐ Crack between concrete railings on top of the bridge deck 	☒ Not present	☐ Visual - live # dead # ☐ Guano ☐ Staining ☐ Audible ☐ Odor ☐ Photos ☐ Species
☐ Vertical surfaces on concrete I-beams	☒ Not present	☐ Visual - live # dead # ☐ Guano ☐ Staining ☐ Audible ☐ Odor ☐ Photos ☐ Species
☐ Spaces between walls, ceiling joists	☒ Not present	☐ Visual - live # dead # ☐ Guano ☐ Staining ☐ Audible ☐ Odor ☐ Photos ☐ Species
☐ Weep holes, scupper drains, and inlets/pipes	☒ Not present	☐ Visual - live # dead # ☐ Guano ☐ Staining ☐ Audible ☐ Odor ☐ Photos ☐ Species
☐ All guiderails	☒ Not present	☐ Visual - live # dead # ☐ Guano ☐ Staining ☐ Audible ☐ Odor ☐ Photos ☐ Species
☐ All expansion joints	☒ Not present	☐ Visual - live # dead # ☐ Guano ☐ Staining ☐ Audible ☐ Odor ☐ Photos ☐ Species

Name: Dominique DiLandro

Signature: Dominique DiLandro

EPR ID: C06

Bridge/Structure Bat Assessment Form

Date & Time of Assessment 09/17/24 3:34 pm	DOT Project Number N/A	Route/Facility Carried N/A	County Jefferson County, TX
Federal Structure ID N/A	Structure Coordinates (latitude and longitude) 29.947569 -93.896862	Structure Height (approximate) 3 ft.	Structure Length 30 ft.

Structure Type (check one)

Bridge Construction Style

○ Cast-in-place		○ Pre-stressed Girder	
○ Flat Slab/Box		○ Steel I-beam	
○ Truss		○ Covered	
○ Parallel Box Beam		○ Other:	

Culvert Type

- ○ Box
- ○ Pipe/Round
- ○ Other:

Other Structure

- ○

Structure Material (check all that apply)

Deck Material	*Beam Material*	*End/Back Wall Material*
☐ Metal	☐ None	☐ Concrete
☐ Concrete	☐ Concrete	☐ Timber
☐ Timber	☐ Steel	☐ Stone/Masonry
☐ Open grid	☐ Timber	☐ Other:
☐ Other:	☐ Other:	

Creosote Evidence

- ○ Yes ○ No
- ○ Unknown

Culvert Material

- ☐ Metal
- ☒ Concrete
- ☐ Plastic
- ☐ Stone/Masonry
- ☐ Other:

Notes:

1 Round Culvert: 3 ft. x 3 ft. x 30 ft (W x H x L)
Feature over Culvert: Maintained Vegetation
Feature through Culvert: Stormwater
Depth of Water: Dry

Crossings Traversed (check all that apply)

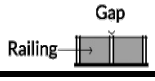
☐ Bare ground	☐ Open vegetation
☐ Rip-rap	☐ Closed vegetation
☐ Flowing water	☐ Railroad
☐ Standing water	☐ Road/trail - Type:
☐ Seasonal water	☐ Other:

Surrounding Habitat (check all that apply)

☐ Agricultural	☒ Grassland
☐ Commercial	☐ Ranching
☒ Residential-urban	☐ Riparian/wetland
☐ Residential-rural	☐ Mixed use
☒ Woodland/forested	☐ Other:

Areas Assessed (check all that apply)

Check all areas that apply. If an area is not present in the structure, check the "not present" box.
Document all bat indicators observed during the assessment. Include the species present, if known, and provide photo documentation as indicated.

Area (check if assessed)	**Assessment Notes**	**Evidence of Bats** (include photos if present)
☒ All crevices and cracks: **Bridges/culverts:** rough surfaces or imperfections in concrete **Other structures:** soffits, rafters, attic areas	☐ Not present	☐ Visual - live # dead # ☐ Guano ☐ Staining ☐ Audible ☐ Odor ☐ Photos ☐ Species
☐ Concrete surfaces (open roosting on concrete)	☒ Not present	☐ Visual - live # dead # ☐ Guano ☐ Staining ☐ Audible ☐ Odor ☐ Photos ☐ Species
☐ Spaces between concrete end walls and the bridge deck	☒ Not present	☐ Visual - live # dead # ☐ Guano ☐ Staining ☐ Audible ☐ Odor ☐ Photos ☐ Species
☐ Crack between concrete railings on top of the bridge deck 	☒ Not present	☐ Visual - live # dead # ☐ Guano ☐ Staining ☐ Audible ☐ Odor ☐ Photos ☐ Species
☐ Vertical surfaces on concrete I-beams	☒ Not present	☐ Visual - live # dead # ☐ Guano ☐ Staining ☐ Audible ☐ Odor ☐ Photos ☐ Species
☐ Spaces between walls, ceiling joists	☒ Not present	☐ Visual - live # dead # ☐ Guano ☐ Staining ☐ Audible ☐ Odor ☐ Photos ☐ Species
☐ Weep holes, scupper drains, and inlets/pipes	☒ Not present	☐ Visual - live # dead # ☐ Guano ☐ Staining ☐ Audible ☐ Odor ☐ Photos ☐ Species
☐ All guiderails	☒ Not present	☐ Visual - live # dead # ☐ Guano ☐ Staining ☐ Audible ☐ Odor ☐ Photos ☐ Species
☐ All expansion joints	☒ Not present	☐ Visual - live # dead # ☐ Guano ☐ Staining ☐ Audible ☐ Odor ☐ Photos ☐ Species

Name: Dominique DiLandro

Signature: Dominique DiLandro

EPR ID: C07

Bridge/Structure Bat Assessment Form

Date & Time of Assessment 09/17/24 3:34 pm	DOT Project Number N/A	Route/Facility Carried N/A	County Jefferson County, TX
Federal Structure ID N/A	Structure Coordinates (latitude and longitude) 29.947569 -93.896862	Structure Height (approximate) 3 ft.	Structure Length 30 ft.

Structure Type (check one)

Bridge Construction Style

○ Cast-in-place		○ Pre-stressed Girder	
○ Flat Slab/Box		○ Steel I-beam	
○ Truss		○ Covered	
○ Parallel Box Beam		○ Other:	

Culvert Type

○ Box	
○ Pipe/Round	○
○ Other:	

Other Structure

Structure Material (check all that apply)

Deck Material	*Beam Material*	*End/Back Wall Material*
☐ Metal	☐ None	☐ Concrete
☐ Concrete	☐ Concrete	☐ Timber
☐ Timber	☐ Steel	☐ Stone/Masonry
☐ Open grid	☐ Timber	☐ Other:
☐ Other:	☐ Other:	

Creosote Evidence

○ Yes ○ No ○ Unknown

Culvert Material

☐ Metal
☒ Concrete
☐ Plastic
☐ Stone/Masonry
☐ Other:

Notes:

1 Round Culvert: 3 ft. x 3 ft. x 30 ft (W x H x L)
Feature over Culvert: Maintained Vegetation
Feature through Culvert: Stormwater
Depth of Water: Dry

Crossings Traversed (check all that apply)

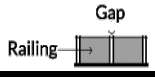
☐ Bare ground	☐ Open vegetation
☐ Rip-rap	☐ Closed vegetation
☐ Flowing water	☐ Railroad
☐ Standing water	☐ Road/trail - Type:
☐ Seasonal water	☐ Other:

Surrounding Habitat (check all that apply)

☐ Agricultural	☒ Grassland
☐ Commercial	☐ Ranching
☒ Residential-urban	☐ Riparian/wetland
☐ Residential-rural	☐ Mixed use
☒ Woodland/forested	☐ Other:

Areas Assessed (check all that apply)

Check all areas that apply. If an area is not present in the structure, check the "not present" box.
Document all bat indicators observed during the assessment. Include the species present, if known, and provide photo documentation as indicated.

Area (check if assessed)	**Assessment Notes**	**Evidence of Bats** (include photos if present)
☒ All crevices and cracks: **Bridges/culverts:** rough surfaces or imperfections in concrete **Other structures:** soffits, rafters, attic areas	☐ Not present	☐ Visual - live # dead # ☐ Guano ☐ Staining ☐ Audible ☐ Odor ☐ Photos ☐ Species
☐ Concrete surfaces (open roosting on concrete)	☒ Not present	☐ Visual - live # dead # ☐ Guano ☐ Staining ☐ Audible ☐ Odor ☐ Photos ☐ Species
☐ Spaces between concrete end walls and the bridge deck	☒ Not present	☐ Visual - live # dead # ☐ Guano ☐ Staining ☐ Audible ☐ Odor ☐ Photos ☐ Species
☐ Crack between concrete railings on top of the bridge deck 	☒ Not present	☐ Visual - live # dead # ☐ Guano ☐ Staining ☐ Audible ☐ Odor ☐ Photos ☐ Species
☐ Vertical surfaces on concrete I-beams	☒ Not present	☐ Visual - live # dead # ☐ Guano ☐ Staining ☐ Audible ☐ Odor ☐ Photos ☐ Species
☐ Spaces between walls, ceiling joists	☒ Not present	☐ Visual - live # dead # ☐ Guano ☐ Staining ☐ Audible ☐ Odor ☐ Photos ☐ Species
☐ Weep holes, scupper drains, and inlets/pipes	☒ Not present	☐ Visual - live # dead # ☐ Guano ☐ Staining ☐ Audible ☐ Odor ☐ Photos ☐ Species
☐ All guiderails	☒ Not present	☐ Visual - live # dead # ☐ Guano ☐ Staining ☐ Audible ☐ Odor ☐ Photos ☐ Species
☐ All expansion joints	☒ Not present	☐ Visual - live # dead # ☐ Guano ☐ Staining ☐ Audible ☐ Odor ☐ Photos ☐ Species

Name: Dominique DiLandro

Signature: Dominique DiLandro

C1

Culvert exit

Inside culvert exit

Downstream view

C2

Upstream view

Culvert entrance

Culvert exit

Downstream view

C3

Culvert exit

Facing out from culvert exit

Downstream view

C4

Upstream view

Culvert entrance

Culvert exit

Downstream view

C5

Culvert exit

Inside culvert exit

Downstream view

C6

Culvert exit

Habitat outside culvert

C7

Upstream view

Culvert entrance

Inside culvert

Culvert exit

Downstream view

Cook, Dorothy

Subject: RE: [EXTERNAL] Jefferson County Drainage District #7 Projects

From: Buckingham, Matthew A <matthew_buckingham@fws.gov>
Sent: Tuesday, January 28, 2025 8:20 AM
To: Culbertson, Jan C <jan_culbertson@fws.gov>; Lee Sherrod <lsherrod@horizon-esi.com>
Cc: Toby Davis <tdavis@dd7.org>; Cook, Dorothy <dorothy.cook@fema.dhs.gov>; Barron Cook <bcook@dd7.org>; Allen Sims <ASims@dd7.org>
Subject: RE: [EXTERNAL] Jefferson County Drainage District #7 Projects

Good morning Lee, et al.,

I've looked at your survey report and it appears that the habitat assessment, acoustic surveys, and data analysis were performed in accordance with the *Range-wide Indiana Bat and Northern Long-eared Bat Survey Guidelines* and the submitted study plan form. Please note that per the aforementioned guidelines, these survey results are valid for five years from the survey date.

If you haven't already, please consider submitting these data to NABat (https://www.nabatmonitoring.org/) and the Texas Natural Diversity Database (https://tpwd.texas.gov/huntwild/wild/wildlife_diversity/txndd/submit.phtml), even though there were no positive PESU detections.

Pease also consider entering your results on the Southwest Region's Section 10 Bat Reporting Spreadsheet (available here: https://www.fws.gov/media/bat-reporting-spreadsheets) and sending a copy to me at your earliest convenience. These data will help refine current models and inform future models for the species.

Please feel free to reach out with any questions.

Thanks,

Matt Buckingham
Fish & Wildlife Biologist
U.S. Fish & Wildlife Service
506 Hayter Street
Nacogdoches, Texas 75965
O: 936-339-0201
C: 832-205-9028

ATTACHMENT 7

CULTURAL RESOURCES SURVEY AND SHPO CONSULTATION LETTERS

LJA ENVIRONMENTAL SERVICES

Headquarters: 14701 St. Mary's Lane, Suite 400, Houston, Texas 77079
t 713.953.5200 LJAENVIRONMENTAL.com
Regional Field Offices: Arlington • Austin • Corpus Christi • McKinney

20 May 2024

Mr. Brad Patterson
Texas Historical Commission
P.O. Box 12276
Austin, Texas 78711-2276

RE: Initial SHPO Consultation
Jefferson County Drainage District No. 7
Groves Detention Pond Project
City of Groves, Jefferson County, Texas
ACT (JCDD7; Section 106 (FEMA)

Mr. Patterson:

Jefferson County Drainage District No. 7 (JCDD7) (the Sponsor) is proposing to develop the Groves Detention Pond Project in the City of Groves, Jefferson County, Texas (Project Area). As JCDD7 is a political subdivision of the state, the proposed undertaking falls under the regulations of the Antiquities Code of Texas (ACT). In addition, funding for the undertaking is being requested from the Federal Emergency Management Agency (FEMA) under the Hazard Mitigation Grant Program (HMGP). As a result, the undertaking also falls under the regulations of Section 106 of the National Historic Preservation Act (NHPA) of 166, as amended. JCDD7 has contracted with LJA Environmental Services, Inc. (LJAES) to prepare this initial consultation with your office regarding the proposed undertaking in compliance with the ACT and Section 106 of the NHPA.

PROJECT DESCRIPTION

Funding for the Groves Detention project is being requested from FEMA under the HMGP. FEMA's project number is HMGP-DR-4332-TX Project #166. The drainage problem to be mitigated is repetitive structure flooding and frequent roadway flooding. The source of the flooding is JCDD7's Atlantic Main Canal. The canal and its associated crossings are inadequate to convey flood flows without floodwater surface elevations reaching a point of entering structures along the canal. The proposed detention pond project will be designed to lower the water surface in the District's Atlantic Main Canal which will translate to reduced flood elevations for residential and commercial structures within the watershed as well as reducing pumping requirements at the Crane Bayou Pump Station.

The project includes the construction of a 48.0-acre floodwater detention basin in the chosen Project Area that will provide detention capacity for the developed areas of the Crane Bayou Watershed surrounding the Atlantic Main Canal tributary. The property will be cleared of vegetation and standing structures (i.e. Taft Elementary School) and a detention basin

excavated approximately 5.0 feet (1.5 meters [m]) deep with 4:1 side slopes and a 30.0-foot (9.1-m) wide, 3.0-foot (0.9-m) high perimeter maintenance berm. Four pilot channels will be excavated from each of the basin's corners and joined perpendicularly with a central pilot channel, which will facilitate drainage between flood events and channel stormwater flow. Three (3) 6.0 x 4.0-foot (1.8 x 1.2-m) box culverts will be installed at intervals of 400.0, 800.0, and 1,350.0 feet (121.9, 243.8, and 411.5 m) along the Atlantic Main Canal south of Whitby Lane into the detention basin. The majority of the material excavated will be used in the creation of the perimeter berms. Any excess material will be hauled to an upland location.

PRELIMINARY BACKGROUND RESEARCH

Database Review

Background research conducted via the Texas Historical Commission's (THC's) Texas Archeological Sites Atlas (Atlas) online database indicated the presence of no previously recorded archeological sites or cemeteries within a 0.6-mile (1.0-kilometer [km]) perimeter of the Project Area (THC 2024). Similarly, a review of the National Park Service's (NPS) National Register of Historic Places (NRHP) and National Historic Trails (NHT) Google Earth map layers indicated the presence of no historic properties listed in the NRHP or designated NHT segments within the review perimeter (NPS 2024a and 2024b). No documented cultural resources, including any listed in the NRHP and/or designated as State Antiquities Landmarks (SAL), are located within or immediately adjacent to the boundaries of the Property.

The closest documented cultural resource to the Project Area is a historic-era shipwreck. This shipwreck (Chief; THC Shipwreck No. 1746) is located approximately 1.3 miles (2.1 km) southeast of the Project Area.

Previous Cultural Resources Investigations

Based on the Atlas database, no prior cultural resources assessments have been conducted within the limits of the current Project Area.

Map and Aerial Imagery Review

The earliest available topographic quadrangle maps for the location of the Project Area date to 1953, while the available aerial imagery dates back as early as 1930 (NETR 2024). The topographic quadrangle maps are generally lacking in detail until 1972 when Taft Elementary School becomes visible in the northwest corner of the property and another small structure (barn?) becomes visible in the southeastern corner of the property (NETR 2024). Taft Elementary School is currently still present on modern maps of the property, while the smaller structure is no longer present on the topographic quadrangle maps after 1993. The available aerial imagery depicts the area as undeveloped farmland until 1966 when Taft Elementary School and the noted smaller structure become visible on the property (ASCS 1966). Again,

Taft Elementary School is still present on modern aerial imagery, while remnants of the smaller structure appear to still be present as late as 2012.

Historic Background

Prior to World War II, nationwide, there was a lack of funding due to the Great Depression. Following World War II, educators at the *1947 National Conference for the Improvement of Teaching* recommended a ten-billion-dollar building program over the next decade to meet the classroom demand and to replace existing, deteriorating buildings. The population of the United States was increasing at a faster rate than schools could keep up with and soon overcrowded schools became the norm. During World War II, the school system in Port Neches faced upheaval due to significant industrial and population changes (Reynolds 2003). In 1942, a synthetic rubber complex was constructed on C.O. Baird's land, costing $100 million and creating 10,000 to 15,000 construction jobs (Reynolds 2003). This complex, including Neches Butane, Goodrich, and Firestone, made Port Neches the "Synthetic Rubber Capital of the World" (Reynolds 2003). Overcrowding led to elementary classes operating on half-day schedules, with some teachers instructing in temporary schools lacking basic amenities in Camp Neches (Reynolds: 2003). The city grappled with land scarcity for governmental and educational purposes (Reynolds 2003). Land transactions dating back to T.F. McKinney's sales to Grigsby and later to C.O. Baird shaped the region from the Neches River to the Kansas City Railroad (Reynolds 2003).

The Port Neches Independent School District, formerly the County Common School District #16, was established by the Jefferson County School Board on April 10, 1945 (Reynolds 2003). This designation was affirmed by the 50th Legislature of Texas in the General Validating Act of 1947 (Reynolds: 2003). Throughout the 1950s, the Port Neches ISD underwent a notable evolution, evolving into a contemporary, high-quality institution (Reynolds 2003). Between 1949 and 1950, a significant construction initiative was launched during this period, leading to the dedication of eight new schools and a modern administration building (Reynolds 2003). The new generation of mid-century school design across the country reflected the theories of the time. Educators believed that schools should not only serve just the physical and educational needs of students but took interest in nurturing students' emotional development. Schools of this era were typically long, and low, one-story buildings designed in the International Style with bands of windows, light-filled courtyards, contrasting exterior wall materials, flat or low pitch roofs and deep eave overhangs and a decentralized floorplan. Mid-century schools featured larger sites and a greater emphasis on landscaping and outdoor recreation. This resulted in more sprawling school designs, in contrast to the predecessor school designs of housing students in one, multi-story block building. According to mid-century educators, successful school planning required balancing three primary concerns: environment, education, and economy (Meijer 2024). Mid-century designs utilized new technologies, materials, and mass production methods to meet the demand for affordable and fast construction, thus making this style easily adaptable and popular with school districts and limited budgets.

Deed records indicate that in 1955, trustees of the Port Neches ISD purchased land from Highland Heights, Inc. The land was part of the Port Arthur Land Company, platted as lots 5 and 6 of Block 4, and lots 3 and 5 of Block 5 (JCC: Vol.973, page 211). In 1966, Taft Elementary School was constructed on this parcel. By May of 2023, the school was officially closed.

TAFT ELEMENTARY SCHOOL

Taft Elementary School site was only recently added to the boundary of the JCDD7 detention basin project after the Port Neches-Groves ISD determined the school was a significant health and safety concern due to asbestos containing materials (ACMs) prevalent in the construction of the school. Asbestos abatement procedures were initiated in March and April of 2024 and have resulted in significant removal of much of the school structure that was determined to contain ACMs. The remnants of the structure represented a public liability hazard due to unstable brick walls and other pieces of the structure, so the entire structure has been demolished. The school property was donated to JCDD7 by the school district, and JCDD7 undertook the asbestos abatement with district funds not related to the FEMA grant for the detention basin.

Building Description

The school building was constructed in a modified “H” form, with the interior courtyards formed within the complex separated by a hyphen wing. The front of the one-story building faced northwest towards 26th Street. Overall, the building was long and low, with a low-pitched roof extending over exterior, brick-clad walls forming wide, deep eaves and exaggerated, wide, painted metal-clad rakes. A one-story rectangular addition extended from the southeastern end. This addition had an end-gabled metal roof and may have served as a gymnasium space, based on the height of the building. Both long sections of the “H” were sheltered with low-pitched gabled roofs, with the gables infilled with divided glass fixed windows.

The central entrance bay connecting the two long wings had a flat roof, and the front main entrance doors were recessed under the extended eaves. Ribbon, clerestory windows ran the length of the longer sides of the building (northeast and southwest sides) under the soffits. The roof was clad in metal sheeting. Metal fixed pendant light fixtures extended from the soffits and were affixed to the rakes in some areas. Many openings were enclosed with plywood, yet appear to be variations of metal framed windows, metal framed glass double doors, and metal doors. Ballfields and playground equipment occupied the green space behind the building. Sidewalks linked to the various parking areas. See Figures 1-7 for images of the school building and grounds prior to demolition.

NRHP Eligibility Assessment

Taft Elementary School is associated with a period of population growth and the demand for schools in a growing, post-World War II school district. The school was one of eight schools constructed between 1949-1975 within the district. Though this building is associated with the growth of the area, it is not directly linked with a significant event in history, and is therefore considered not eligible for listing in the NRHP under Criteria A. The architect or builder of the

Figure 1: Aerial view of the school (Google Maps, 2023)

Figure 2: View of the school, facing southeast

Figure 3: View of the school facing southeast

Figure 4: View of the school facing southwest

Figure 5: View of the school facing southeast

Figure 6: View of the school and addition, facing north

Figure 7: View of the school facing southwest

school is not known. No documentation researched indicated that a notable person or persons are associated with the school. Therefore, the school is considered not eligible for listing in the NRHP under Criteria B.

Finally, the school is not considered an example of a notable design or excellent example of the International style. Rather, the buildings are constructed of very commonly used materials and employ stylistic characteristics popular at the time. The International styles, with their lack of opulent details and use of common and relatively inexpensive materials, were a popular choice for educational facilities adhering to budgets and state funding. The school is not considered a particularly unique design, nor does it exhibit exceptional features of this style. Therefore, the school is considered not eligible for listing in the NRHP under Criteria C.

PRELIMINARY SITE ASSESSMENT

In addition to the review of Taft Elementary School photographs, a Horizon archeologist also conducted a preliminary site assessment to determine if the smaller structure in the southeast corner of the Project Area was still present. This preliminary site assessment revealed that the structure had once consisted of a shed or small barn that was constructed with dimensional lumber and roofed with corrugated metal sheets (Figure 8). A smaller, collapsed metal structure of unknow purpose was also noted adjacent to the collapsed shed/barn (Figure 9). Based on its dilapidated nature, the remnants of this structure would not be eligible for listing in the NRHP under Criteria C.

Figure 8: View of collapsed shed/barn facing northeast

Figure 9: View of collapsed shed/barn facing southwest

LJA ENVIRONMENTAL SERVICES

PROBABILITY ASSESSMENT

Prehistoric archeological sites are commonly found in upland areas and on alluvial terraces near stream/river channels or drainages. Based on the location of the Project Area set away from extant water courses, it is LJAES's opinion that there exists a low potential for undocumented prehistoric cultural deposits within the Project Area.

Regarding historic-era resources, Taft Elementary School once stood on the property but has since been demolished. A smaller structure also once stood in the southeastern corner of the property, but it has since collapsed. Based on the assessments that neither of these structures would qualify for inclusion in the NRHP, it is LJAES's opinion that there exists a low potential for any standing historic structures that are eligible for inclusion in the NRHP within the limits of the Project Area.

REQUEST FOR COMMENT

Based on the provided information and maps, Horizon is requesting comments from your office regarding the need for any cultural resources assessments within the limits of the proposed Groves Detention Pond Project. Once your office responds, Horizon will relay the information to JCDD7 in order to let them know if any additional investigations are required for the proposed undertaking.

Should you have any questions, please do not hesitate to call me at (512) 328-2430.

Sincerely,

Russ Brownlow

Russ Brownlow, MA, RPA
Executive Environmental Director
LJA Environmental Services, Inc.
Horizon Environmental Services

Enclosures (project location maps)

LJA ENVIRONMENTAL SERVICES

REFERENCES

(ASCS) Agricultural Stabilization & Conservation Service

1966 Aerial image of Taft Avenue and State Highway 87, Port Arthur, Texas.

Google Maps

2024 *Port Arthur, Texas*. < https://www.google.com/maps/@29.947478,-93.8952984,321m/data=!3m1!1e3?entry=ttu>. Accessed 14 May 2024.

Meijer, Peter

2024 *Mid-Century School Design and its Role in the Pursuit of Education.* Peter Meijer Architects. < https://pmapdx.com/blog-pmafindings/14344/mid-century-school-design-and-its-role-in-the-pursuit-of-education>. Accessed 14 May 2024.

(NPS) National Park Service

2024a National Register of Historic Places online database. <http://nrhp.focus.nps.gov/natreghome.do?searchtype=natreghome>. Accessed 8 May 2024.

2024b National Historic Trails and Routes, <https://imgis.nps.gov/html/?viewer=nht&layerTheme=2&extent=-11249232.8769509,3101993.37907692,-10398637.1002386,3818284.5594663,102100>. Accessed 8 May 2024.

(NETR) Nationwide Environmental Title Research, LLC

2024 Historic Aerials by NETROnline. <https://historicaerials.com/>. Accessed 8 May 2024.

Reynolds, Charlie L.

2003 *A History of the Port Neches Independent School District: Early Days to 1975.* Retired Ridgewood Elementary Principal. < https://tx02205731.schoolwires.net/cms/lib/TX02205731/Centricity/Domain/11/history.pdf >. Accessed 14 May 2024.

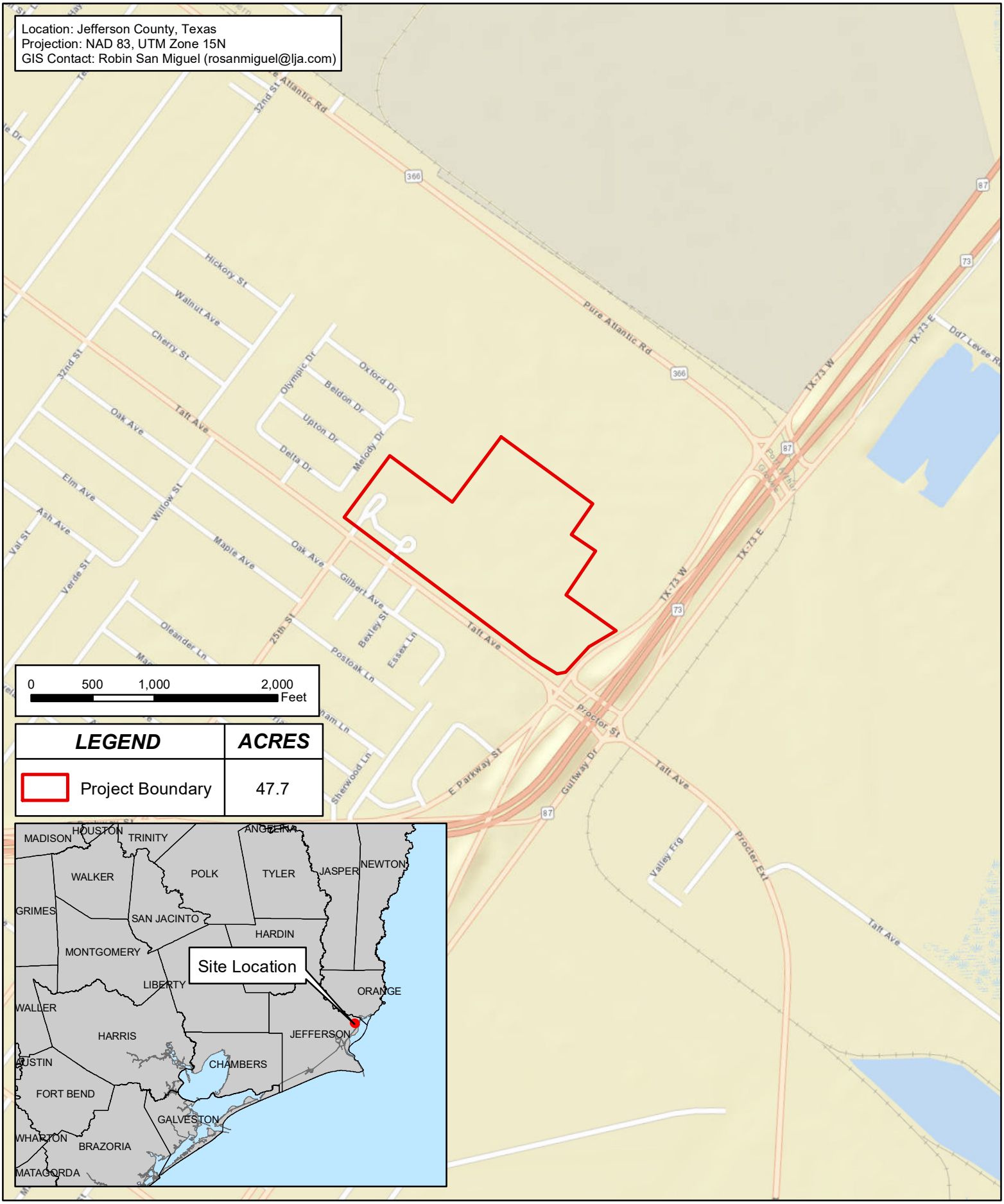
(JCC) Jefferson County Clerk

2024 *Real Estate Records.* < https://jeffersontxclerk.manatron.com/RealEstate/SearchImage.aspx>. Accessed 14 May 2024.

(THC) Texas Historical Commission

2024 *Texas Archeological Sites Atlas Restricted Database*. <https://atlas.thc. state.tx.us/>. Accessed 8 May 2024.

Location: Jefferson County, Texas
Projection: NAD 83, UTM Zone 15N
GIS Contact: Robin San Miguel (rosanmiguel@lja.com)



LEGEND	ACRES
Project Boundary	47.7

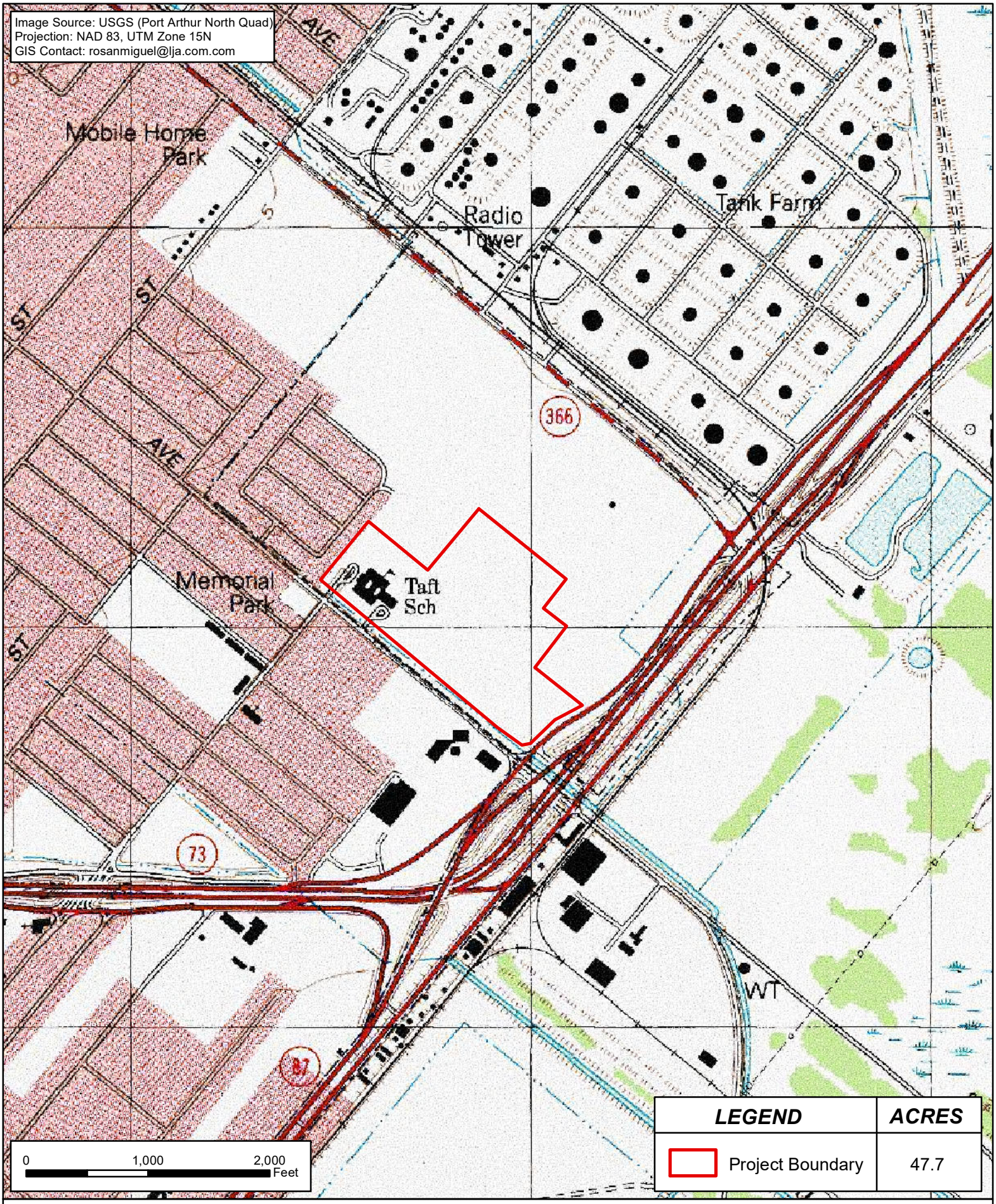
SITE LOCATION MAP

N

Project #: LJAES 033-200008
For: Jefferson County Drainage District No. 7
Location: N of Taft Ave & SH 87
Jefferson County, Texas

REVISIONS
06/24/2021 ND
04/10/2023 KRW
05/10/2023 KRW

LJA ENVIRONMENTAL SERVICES
ENVIRONMENTAL SCIENCE & LAND USE CONSULTANTS
14701 ST. MARY'S LANE, SUITE 400
HOUSTON, TEXAS 77079 PHONE (281)589-0898 http://www.lja.com



USGS TOPOGRAPHIC MAP - PORT ARTHUR NORTH QUAD

N

Project #: LJAES 033-200008
For: Jefferson County Drainage District No. 7
Location: N of Taft Ave & SH 87
Jefferson County, Texas

REVISIONS
06/24/2021 ND
04/10/2023 KRW
05/10/2023 KRW

LJA ENVIRONMENTAL SERVICES
ENVIRONMENTAL SCIENCE & LAND USE CONSULTANTS
14701 ST. MARY'S LANE, SUITE 400
HOUSTON, TEXAS 77079 PHONE (281)589-0898 http://www.lja.com

2020 NAIP AERIAL

N

Project #: LJAES 033-200008
For: Jefferson County Drainage District No. 7
Location: N of Taft Ave & SH 87
Jefferson County, Texas

REVISIONS
06/24/2021 ND
04/10/2023 KRW
05/10/2023 KRW

LJA ENVIRONMENTAL SERVICES
ENVIRONMENTAL SCIENCE & LAND USE CONSULTANTS
14701 ST. MARY'S LANE, SUITE 400
HOUSTON, TEXAS 77079 PHONE (281)589-0898 http://www.lja.com

From: noreply@thc.state.tx.us
To: Russ Brownlow; reviews@thc.state.tx.us
Subject: Groves Detention Pond Project
Date: Monday, June 17, 2024 2:16:19 PM

[EXTERNAL EMAIL]

Re: Project Review under Section 106 of the National Historic Preservation Act and/or the Antiquities Code of Texas
THC Tracking #202410552
Date: 06/17/2024
Groves Detention Pond Project
Taft Ave and Gulfway Dr
Groves,TX

Description: Initial SHPO consultation. Prior structures on property have been demolished or have collapsed.

Dear Russ Brownlow:
Thank you for your submittal regarding the above-referenced project. This response represents the comments of the State Historic Preservation Officer, the Executive Director of the Texas Historical Commission (THC), pursuant to review under Section 106 of the National Historic Preservation Act and the Antiquities Code of Texas.

The review staff, led by Justin Kockritz and Emily McCuistion , has completed its review and has made the following determinations based on the information submitted for review:

Above-Ground Resources

- No historic properties are present or affected by the project as proposed. However, if historic properties are discovered or unanticipated effects on historic properties are found, work should cease in the immediate area; work can continue where no historic properties are present. Please contact the THC's History Programs Division at 512-463-5853 to consult on further actions that may be necessary to protect historic properties.

Archeology Comments

- An archeological survey is required. You may obtain lists of archeologists in Texas through the Council of Texas Archeologists and the Register of Professional Archaeologists. Please note that other qualified archeologists not included on these lists may be used. If this work will occur on land owned or controlled by a state agency or political subdivision of the state, a Texas Antiquities Permit must be obtained from this office prior to initiation of fieldwork. All fieldwork should meet the Archeological Survey Standards for Texas. A report of investigations is required and should be

produced in conformance with the Secretary of the Interior's Guidelines for Archaeology and Historic Preservation and submitted to this office for review. Reports for a Texas Antiquities Permit should also meet the Council of Texas Archeologists Guidelines for Cultural Resources Management Reports and the Texas Administrative Code. In addition, any buildings 45 years old or older that are located on or adjacent to the tract should be documented with photographs and included in the report. To facilitate review and make project information available through the Texas Archeological Sites Atlas, we appreciate the submittal of survey area shapefiles via the Shapefile tab on eTRAC concurrently with submission of the draft report. Please note that while appreciated for Federal projects this is required for projects conducted under a Texas Antiquities Permit. For questions on how to submit these, please visit our video training series at: https://www.youtube.com/playlist?list=PLONbbv2pt4cog5t6mCqZVaEAx3d0MkgQC

We have the following comments: Archeological survey is required for the shed/barn site and for the school property.

We look forward to further consultation with your office and hope to maintain a partnership that will foster effective historic preservation. Thank you for your cooperation in this review process, and for your efforts to preserve the irreplaceable heritage of Texas. If the project changes, or if new historic properties are found, please contact the review staff. If you have any questions concerning our review or if we can be of further assistance, please email the following reviewers: justin.kockritz@thc.texas.gov, Emily.McCuistion@thc.texas.gov .

This response has been sent through the electronic THC review and compliance system (eTRAC). Submitting your project via eTRAC eliminates mailing delays and allows you to check the status of the review, receive an electronic response, and generate reports on your submissions. For more information, visit http://thc.texas.gov/etrac-system.

Sincerely,

for Bradford Patterson
Chief Deputy State Historic Preservation Officer

Please do not respond to this email.

From: noreply@thc.state.tx.us
To: Jesse Dalton; reviews@thc.state.tx.us
Subject: Groves Detention Pond Project
Date: Wednesday, October 30, 2024 2:40:13 PM

[EXTERNAL EMAIL]

Re: Project Review under Section 106 of the National Historic Preservation Act and/or the Antiquities Code of Texas
THC Tracking #202502313
Date: 10/30/2024
Groves Detention Pond Project (Permit 31899)
2504 Taft Avenue
Port Arthur,TX 77642

Description: The project would involve the construction of a 48.0-acre detention basin in eastern Port Arthur, Texas.

Dear Jesse Dalton:
Thank you for your submittal regarding the above-referenced project. This response represents the comments of the State Historic Preservation Officer, the Executive Director of the Texas Historical Commission (THC), pursuant to review under Section 106 of the National Historic Preservation Act and the Antiquities Code of Texas.

The review staff, led by Justin Kockritz and Marie Archambeault, has completed its review and has made the following determinations based on the information submitted for review:

Above-Ground Resources

- THC/SHPO concurs with information provided.
- No historic properties are present or affected by the project as proposed. However, if historic properties are discovered or unanticipated effects on historic properties are found, work should cease in the immediate area; work can continue where no historic properties are present. Please contact the THC's History Programs Division at 512-463-5853 to consult on further actions that may be necessary to protect historic properties.

Archeology Comments

- No historic properties affected. However, if cultural materials are encountered during construction or disturbance activities, work should cease in the immediate area; work can continue where no cultural materials are present. Please contact the THC's Archeology Division at 512-463-6096 to consult on further actions that may be necessary to protect the cultural remains.
- THC/SHPO concurs with information provided.

- This draft report is acceptable. To facilitate review and make project information and final reports available through the Texas Archeological Sites Atlas, we appreciate submission of tagged pdf copies of the final report including one restricted version with all site location information (if applicable), and one public version with all site location information redacted; an online abstract form submitted via the abstract tab on eTRAC; and survey area shapefiles submitted via the shapefile tab on eTRAC. For questions on how to submit these please visit our video training series at: https://url.us.m.mimecastprotect.com/s/_-kMCxkyDziBBRKkh8f4Fyd8HG?domain=youtube.com Please note that these steps are required for projects conducted under a Texas Antiquities Permit.

We have the following comments: We concur that historic sites 41JF128 and 41JF129 are not eligible for listing on the National Register of Historic Places or for designation as a State Antiquities Landmark. The project may proceed as proposed.

We look forward to further consultation with your office and hope to maintain a partnership that will foster effective historic preservation. Thank you for your cooperation in this review process, and for your efforts to preserve the irreplaceable heritage of Texas. If the project changes, or if new historic properties are found, please contact the review staff. If you have any questions concerning our review or if we can be of further assistance, please email the following reviewers: justin.kockritz@thc.texas.gov, marie.archambeault@thc.texas.gov.

This response has been sent through the electronic THC review and compliance system (eTRAC). Submitting your project via eTRAC eliminates mailing delays and allows you to check the status of the review, receive an electronic response, and generate reports on your submissions. For more information, visit http://thc.texas.gov/etrac-system.

Sincerely,

for Joseph Bell, State Historic Preservation Officer
Executive Director, Texas Historical Commission

Please do not respond to this email.

U.S. Department of Homeland Security
FEMA Region 6
800 N. Loop 288
Denton, TX 76209

FEMA

January 22, 2025

RE: Section 106 Review Consultation
HMGP-4332-0168-TX (1)
Jefferson County Drainage District No. 7 Groves Detention Project
Jefferson County, Texas
(29.946138, -93.891658)

To: Representatives of Federally recognized Tribes with Interest in this Project Area

The Federal Emergency Management Agency (FEMA) is providing grant funding through the Hazard Mitigation Grant Program (HMGP) to Jefferson County Drainage District No. 7 (Applicant) for the construction of a new detention pond (Undertaking). FEMA is initiating Section 106 review for the above referenced project based on your Tribe's ancestral interest in the project area.

The Applicant proposes to construct a 48-acre floodwater detention basin in Port Arthur, Jefferson County, Texas that will provide detention capacity for the developed areas of the Crane Bayou Watershed surrounding the Atlantic Main Canal tributary (Benefit Area). The property will be cleared of vegetation and a detention basin excavated approximately 5 feet deep with 4:1 side slopes and a 30-foot-wide, 3-foot-high perimeter maintenance berm. Four pilot channels will be excavated from each of the basin's corners and joined perpendicularly with a central pilot channel, which will facilitate drainage between flood events and channel stormwater flow. Three 6-foot-by-4-foot box culverts will be installed at intervals 400, 800, and 1350 feet south of Whitby Lane into the detention basin. The property will be seeded with a native grass mix. The majority of the material excavated will be hauled to the Port Arthur landfill.

The mitigation work will take place in undisturbed ground.

FEMA has determined that the Area of Potential Effect (APE) for the proposed Undertaking shall include the footprint of the project based on the scale and nature of the Undertaking, as well as the area reasonably required to stage materials.

We are writing to request your comments on historic properties of cultural or religious significance to your Tribe that may be affected by the proposed Undertaking. Any comments you may have on FEMA's findings and recommendations should also be provided.

On January 21, 2025, a FEMA archaeologist performed a cultural records search using the Texas Historical Commission Archaeological Sites Atlas database and associated site files, photographs, and maps to identify historic properties within 1,000 ft. of the APE. The records search revealed two previously recorded archaeological sites within the boundaries of the APE.

Site 41JF128 is located in the northwest portion of the project area, immediately east of Taft Avenue. The site includes the foundational remnants of the mid-20th to early 21st-century Taft Elementary School and an ephemeral surface scatter of historic and modern-age industrial debris. The site

predominantly consists of a highly disturbed sandy loam pad foundation where the school was formerly located prior to demolishment and a low-density surface scatter of historic and modern-age industrial detritus.

Site 41JF129 is in the southeastern portion of the project area and consists of the structural remains of a completely collapsed mid-to-late-20th-century wooden shed, remnant fence posts, and a moderate-density surface scatter of historic and modern-age domestic debris situated in a moderately wooded low coastal flat.

In a response letter for this project dated October 30, 2024, the Texas Historical Commission (THC) found that historic sites 41JF128 and 41JF129 are not eligible for listing on the National Register of Historic Places or for designation as a State Antiquities Landmark, and there would be no Historic Properties affected by the Undertaking.

Based on the available information gathered to date through this review process, it is unlikely that the Undertaking would impact any additional intact archeological deposits, if present. FEMA has determined that there will be **No Historic Properties Affected** as a result of the Undertaking.

Please provide your comments within 30 days of receipt of this letter. If you notify us that your review identifies cultural properties within the APE, or project work discloses the presence of archeological deposits, FEMA will contact your Tribe to continue consultation.

An aerial view and topographic map showing the project location, recorded sites, and APE are attached. Your prompt review of this project is greatly appreciated. Should you need additional information please contact Robert Scoggin, EHP Tribal Liaison at Robert.w.scoggin@fema.dhs.gov (202) 716-4139.

Sincerely,

Dorothy Cook
Senior Environmental Specialist
FEMA Region 6

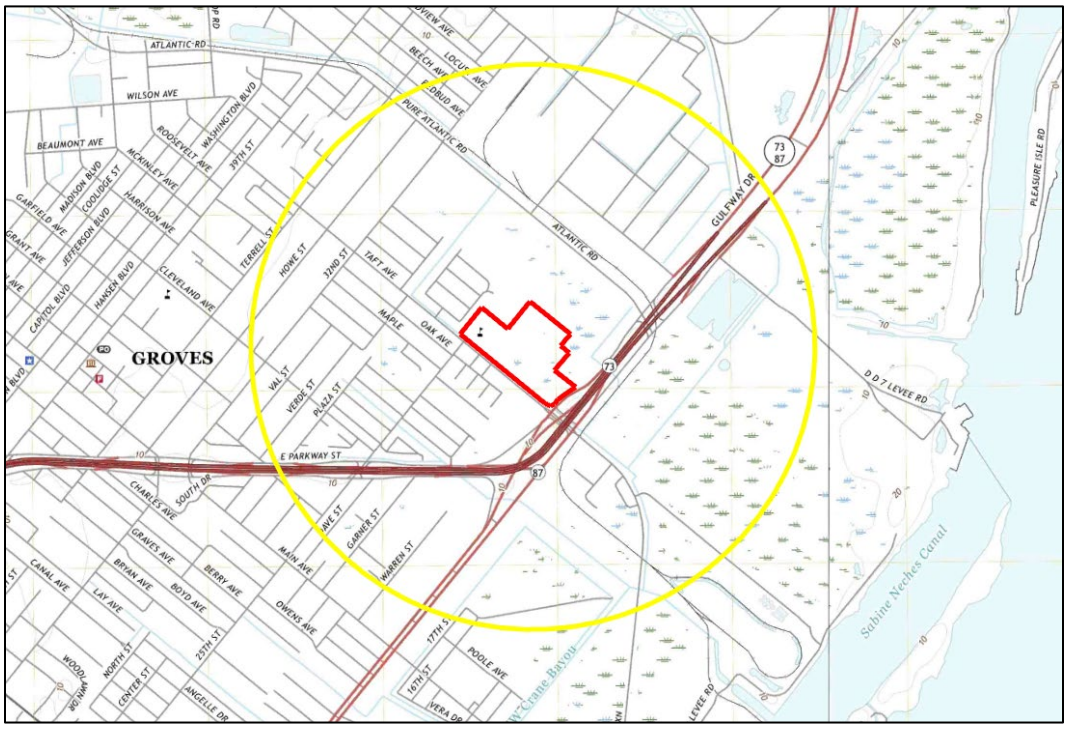


Figure 1: Topographic map showing APE (red polygon) and 1-mile buffer.
Image via USGS, Port Arthur North, TX, 1:24,000, 2022.

Figure 2: Aerial image showing APE (red polygon) and 1-mile buffer.
Image via Google Earth, 2025.

Figure 3: Aerial image showing APE (red polygon) and historic resources within a 1-mile buffer. Image via Google Earth, 2024.

ATTACHMENT 8

DRAFT NOTICE OF AVAILABILITY

Federal Emergency Management Agency (FEMA)
PUBLIC NOTICE
Notice of Availability of the Draft Environmental Assessment for the
Groves Detention Project
HMGP-DR-4332-166-TX
Groves, Jefferson County, Texas

Jefferson County Drainage District No. 7 has applied to FEMA for assistance with the construction of improvements to drainage for the Atlantic Main Canal watershed area of Groves, Jefferson County, Texas. Total ground disturbance in the entire project area will be approximately 48 acres. The improvements aim to reduce future flood risk to numerous existing structures and roads in the Atlantic Main Canal Watershed Benefit Area of Groves.

A draft Environmental Assessment (EA) has been prepared to assess the potential impacts of the proposed action and alternatives on the human and natural environment in accordance with the National Environmental Policy Act of 1969 (NEPA), the Council for Environmental Quality (CEQ) regulations implementing NEPA (40 CFR Parts 1500 – 1508), the National Historic Preservation Act, Executive Order (EO) 11988, EO 11990, the implementing regulations of FEMA (44 CFR Part 9), and FEMA's procedures implementing NEPA found in DHS Directive 023-01-01, DHS Instruction 023-01-001-01, FEMA Directive 108-1, and FEMA Instruction 108-1-1. This project is located within the 100-year floodplain and this notice serves as final notice for purposes of the EO 11988 8-step review.

The draft EA evaluates alternatives that provide for compliance with applicable environmental laws. The alternatives evaluated include (1) no action; (2) buyout alternative; and (3) the proposed action.

The draft EA is available for review and comment between February X, 2025 and March X, 2025, at the Port Arthur Public Library located at 4615 9th Avenue; at the Jefferson County Drainage District No. 7 Offices located at 4749 Twin City Highway, Suite 300, Port Arthur, TX; and at the offices of LJA Environmental Services LLC, located at 1507 South IH 35, Austin, Texas. Electronic copies can be accessed on the JCDD7 website at http://dd7.org/special-notices.asp or by request from Omololu Dawodu, Environmental Protection Specialist, FEMA Region 6 at omololu.dawodu@fema.dhs.gov.

Written comments regarding this proposed project can be mailed to Omololu Dawodu, Environmental Protection Specialist, FEMA Region 6, 909 N. Loop 288, Denton, TX 76209. Electronic comments can also be submitted to omololu.dawodu@fema.dhs.gov . Comments should be received no later than 5 p.m. on ____ __, 2025. If no substantive comments are received, the draft EA will become final and a Finding of No Significant Impact (FONSI) will be issued for the project. Substantive comments will be addressed as appropriate in the final documents.

All other questions regarding disaster assistance should be directed to FEMA's Helpline at 1-800-621-3362 or visit www.DisasterAssistance.gov.

ATTACHMENT 9

FINDING OF NO SIGNIFICANT IMPACT

U. S. Department of Homeland Security
FEMA Region 6
800 North Loop 288
Denton, TX 76209

FEMA

FINDING OF NO SIGNIFICANT IMPACT
JEFFERSON COUNTY DRAINAGE DISTRICT NO. 7
GROVES DETENTION PROJECT
HMGP-4332-0168-TX (1)
GROVES, JEFFERSON COUNTY, TEXAS

BACKGROUND

In accordance with the Federal Emergency Management Agency's (FEMA) Instruction 108-1-1, an Environmental Assessment (EA) has been prepared pursuant to Section 102 of the National Environmental Policy Act (NEPA) of 1969, as implemented by the regulations promulgated by the President's Council on Environmental Quality (CEQ; 40 CFR Parts 1500-1508). The purpose of the proposed project is to provide flood relief for existing homes and businesses in the Atlantic Main Canal watershed of Groves and Port Arthur. This EA informed FEMA's decision on whether to prepare an Environmental Impact Statement (EIS) or a Finding of No Significant Impact (FONSI).

Jefferson County Drainage District No. 7 (JCDD7) has applied for Hazard Mitigation Grant Program (HMGP) funding, through the Texas Division of Emergency Management (TDEM), under HMGP-DR-4332-168-TX (1). Through HMGP, FEMA provides grants to states and local governments to implement long-term hazard mitigation measures, including flood mitigation. The purpose of HMGP is to reduce the loss of life and property due to natural disasters and to enable mitigation measures to be implemented during the immediate recovery from a disaster. HMGP is authorized under Section 404 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act.

Three project alternatives were considered in this EA: 1) No Action Alternative; 2) Buyout Alternative; and 3) Proposed Action Alternative-Detention. Under the No Action Alternative, JCDD7 would take no action for flood mitigation and frequent and severe flooding would continue to occur. Alternative 2, buyout alternative, would require the buyout of numerous existing homes and structures within the project benefit area. The expected costs for the proposed acquisition and demolition of properties and, the relocation of residents, is estimated to be in excess of $38 million. This alternative was determined to be cost-prohibitive, with costs-benefits far exceeding those of the Proposed Action Alternative. Alternative 3, the Proposed Action Alternative, would alleviate repetitive flood damages in the benefit area by providing detention.

Under the Proposed Action Alternative, JCDD7 proposes to construct a 48-acre detention basin on an area of vegetated open space. The property will be cleared of vegetation and a detention basin excavated approximately 5 feet deep with 4:1 side slopes and a 30-foot-wide, 3-foot-high

perimeter maintenance berm. Four pilot channels will be excavated from each of the basin's corners and joined perpendicularly with a central pilot channel, which will facilitate drainage between flood events and channel stormwater flow. Three 6-foot-by-4-foot box culverts will be installed at intervals 400, 800, and 1350 feet south of Whitby Lane into the detention basin. The property will be seeded with a native grass mix. The majority of the material excavated will be hauled to the Port Arthur landfill. Disturbed areas will be seeded with a native grass mix.

A public notice was posted in the local newspaper of record and on JCDD7's website. The draft EA was made available for public comment for 30 days on JCDD7's website, upon request in hard or electronic copy from FEMA, and in hard copy at physical locations in the project area as indicated in the public notice. No comments were received from the public during the comment period.

FINDING OF NO SIGNIFICANT IMPACT

The Proposed Action as described in the EA will not significantly impact geology, seismicity, groundwater, floodplains, migratory birds, threatened and endangered species or critical habitat, coastal zone resources, hazardous materials, zoning and land use, visual resources, public services, safety and security, and cultural resources. During construction, short-term, minor impacts to surface water quality, air quality, noise, utilities, traffic, are anticipated. The project will result in the temporary disturbance of 48 acres of largely undeveloped land, which includes the excavation of approximately 16 acres of non-jurisdictional wetlands. The other non-jurisdictional wetlands within the project area will be avoided to the extent practicable. All adverse impacts require conditions to minimize and mitigate impacts to the proposed project site and surrounding areas.

CONDITIONS

The following conditions must be met as part of this project. Failure to comply with these conditions may jeopardize the receipt of federal funding.

1. This review does not address all federal, state, and local requirements. Acceptance of federal funding requires recipient to comply with all federal, state and local laws. Failure to obtain all appropriate federal, state and local environmental permits and clearances may jeopardize federal funding.

2. Any change to the approved scope of work will require re-evaluation for compliance with NEPA and other Laws and Executive Orders.

3. All abandoned water wells must be capped or properly abandoned according to the Administrative Rules of the Texas Department of Licensing and Regulation, 16 Texas Administrative Code (TAC), Chapter 76, effective 3 January 1999. A plugging report must be submitted by a licensed water well driller to the Texas Department of Licensing and Regulation, Water Well Drillers Program, Austin, Texas. If a well is intended for use, it must comply with rules stipulated in16 TAC §76.

4. JCDD7 must prepare a Storm Water Pollution Prevention Plan (SWPPP) and file a Notice of Intent (NOI) with the Texas Commission on Environmental Quality (TCEQ) at least 48 hours prior to start of construction. Monitoring and maintenance of emplaced Best Management Practices (BMPs) for storm water management will be conducted on a regular basis as prescribed by the Texas Pollutant Discharge Elimination System (TPDES) General Permit TXR 150000.

5. JCDD7 must coordinate with the local floodplain administrator, obtain required permits prior to initiating work, and comply with any conditions of the permit to ensure harm to and from the floodplain is minimized. All coordination pertaining to these activities should be retained as part of the project file.

6. Contractors are required to water down construction areas as needed in order to mitigate excess dust. To reduce emissions, vehicle running times on site will be kept to a minimum and engines will be properly maintained.

7. To the extent feasible, non-jurisdictional wetland areas will be avoided for spoil disposal.

8. JCDD7 will ensure that best management practices are implemented to prevent erosion and sedimentation of wetlands within and adjacent to the right of way. This includes equipment storage and staging of construction materials to prevent erosion and sedimentation to ensure that impacts to wetlands are avoided and minimized to the greatest extent practicable per the Clean Water Act and Executive Order 11990.

9. Unusable equipment, debris and material shall be disposed of in an approved manner and location. In the event significant items (or evidence thereof) are discovered during implementation of the project, applicant shall handle, manage, and dispose of petroleum products, hazardous materials and toxic waste in accordance to the requirements and to the satisfaction of the governing local, state and federal agencies.

10. Construction activities will take place during normal business hours. Machinery operating at the proposed project site will meet all local, state, and federal noise regulations.

11. The appropriate signage and barriers will be in place prior to construction activities to alert pedestrians and motorists of project activities.

12. In the event that archeological deposits, including any Native American pottery, stone tools, bones, or human remains, are uncovered, the project shall be halted and the Applicant shall stop all work immediately in the vicinity of the discovery and take all reasonable measures to avoid or minimize harm to the finds. All archeological findings will be secured by JCDD7, and access to the sensitive area will be restricted by JCDD7. JCDD7 will inform FEMA immediately, and FEMA will consult with the SHPO. Work in sensitive areas shall not resume until consultation is completed and until FEMA determines that the appropriate measures have been taken to ensure complete project compliance with the National Historic Preservation Act (NHPA) and its implementing regulations.

CONCLUSION

Based on the findings of the EA, coordination with the appropriate agencies, comments from the public, and adherence to the project conditions set forth in this FONSI, FEMA has determined that the proposed project qualifies as a major federal action that will not significantly affect the quality of the natural and human environment, nor does it have the potential for significant cumulative effects. As a result of this FONSI, an EIS will not be prepared (FEMA Instruction 108-1-1) and the proposed project as described in the attached EA may proceed.

APPROVAL AND ENDORSEMENT

_____

La Toya Leger-Taylor
Regional Environmental Officer
FEMA Region 6

_____

Marty Chester
Hazard Mitigation Assistance Non-Disaster Branch Chief
FEMA Region 6