

Airport Traffic Control Tower (ATCT) Replacement Program

David Wayne Hooks Memorial Airport (DWH) ATCT Final Tiered Environmental Assessment (EA)

Harris County, Texas

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ACRONYMS AND ABBREVIATIONS

AFTIL	Airport Facilities Terminal Integration Laboratory	NAAQS	National Ambient Air Quality Standards
AGL	Above Ground Level	NAS.....	National Airspace System
ALP.....	Airport Layout Plan	NEPA	National Environmental Policy Act
AMSL.....	Above Mean Sea Level	NFHL	National Flood Hazard Layer
APE.....	Area of Potential Effect	NOAA.....	National Oceanic and Atmospheric Administration
AFDR	Aquatic Features Delineation Report	NPDES.....	National Pollutant Discharge Elimination System
ATCT.....	Airport Traffic Control Tower	NPS.....	National Park Service
ATO.....	Air Traffic Organization	NRCS.....	Natural Resource Conservation Service
AVCO	The Aviation Corporation	NRHP	National Register of Historic Places
BIL.....	Bipartisan Infrastructure Law	NWI.....	National Wetlands Inventory
BLM.....	Bureau of Land Management	PEA.....	Programmatic Environmental Assessment
BMP	Best Management Practice	PEM.....	Palustrine Emergent Wetlands
CAA	Clean Air Act	PEM1C	Palustrine, Emergent, Persistent, Seasonally Flooded
CEQ	Council on Environmental Quality	PSS.....	Palustrine Scrub-Shrub Wetlands
CFR.....	Code of Federal Regulations	ROD.....	Record of Decision
CZMA.....	Coastal Zone Management Act	SHPO.....	State Historic Preservation Officer
DOT.....	Department of Transportation	SOP	Standard Operating Procedure
DWH.....	David Wayne Hooks Memorial Airport	TCEQ.....	Texas Commission on Environmental Quality
EA	Environmental Assessment	THC	Texas Historical Commission
EPA.....	U.S. Environmental Protection Agency	TPWD	Texas Parks and Wildlife Department
ESA.....	Endangered Species Act	U.S.C.	U.S. Code
FAA.....	Federal Aviation Administration	USDA.....	U.S. Department of Agriculture
FBO.....	Fixed Base Operator	USFWS	U.S. Fish and Wildlife Service
FONSI	Finding of No Significant Impact		
FY.....	Fiscal Year		
GA.....	General Aviation		
IIJA	Infrastructure Investment and Jobs Act		
IPAC.....	Information for Planning and Consultation		

SECTION 1 | INTRODUCTION

1.1 OVERVIEW

The Federal Aviation Administration (FAA) is proposing to replace the existing Airport Traffic Control Tower (ATCT) at David Wayne Hooks Memorial Airport (DWH). The Infrastructure Investment and Jobs Act (IIJA) (Public Law 117-58), enacted on November 15, 2021, formerly referred to as the Bipartisan Infrastructure Law (BIL), appropriated \$25 billion (B) over a five-year period (Fiscal Year 2022 [FY22] to 2026 [FY26]) for National Airspace System (NAS) improvements, which includes airport traffic control and other airport infrastructure projects. As a result, the FAA Air Traffic Organization (ATO) established a dedicated ATCT Replacement Program to use the IIJA funding to replace existing FAA-owned ATCTs at mainly non-major airports with modern ATCT facilities (FAA, 2025). The National Environmental Policy Act (NEPA) of 1969, as amended (42 United States Code [U.S.C.] § 4321 et seq.) requires that a federal agency prepare a statement of environmental impacts as part of the development process for projects requiring a federal action, such as funding, approving, or permitting.

The FAA prepared a Final Programmatic Environmental Assessment (PEA) for this ATCT Replacement Program (hereinafter referred to as ATCT Final PEA¹) (FAA ATCT Final PEA, 2023) in accordance with NEPA; (42 U.S.C. § 4321 et seq.); FAA Order 1050.1F, *Environmental Impacts: Policies and Procedures*; the Fiscal Responsibility Act of 2023 (Public Law 118-5); and other applicable federal laws and regulations. The ATCT Final PEA provided sufficient evidence and analysis for a Finding of No Significant Impact (FONSI) / Record of Decision (ROD) determination (FAA ATCT Final PEA, 2023).

This ATCT EA for DWH tiers² from the ATCT Final PEA to evaluate the existing environment and analyze the anticipated environmental consequences of the proposed alternatives at a site-specific level through the framework established by the ATCT Final PEA and FONSI/ROD.

1.2 PROPOSED ACTION

The FAA's Proposed Action is to replace the existing FAA-owned DWH ATCT with a modern, sustainable ATCT facility. Figure 1-1 provides an aerial image of the airport property. The Proposed Action is anticipated to include the following activities:

- Acquisition of a new lease with the airport sponsor to construct an ATCT in a new location.

¹ The ATCT Final PEA can be found here:

<https://www.faa.gov/air-traffic/bilatctfinalpea21sept2023signed>

² Tiering in accordance with NEPA is defined in FAA Order 1050.1F, Section 3-2.

- Unconditional approval of portions of the Airport Layout Plan (ALP) that depict those portions of the Proposed Project subject to FAA review and approval pursuant to 49 U.S.C. § 47107(a)(16).
- Construction and operation of a replacement ATCT and other associated facility support features, such as a parking area and security fencing.
- Extension and/or relocation of access roads and utilities to the replacement ATCT.
- Installation of modern air traffic control electronic equipment in the replacement ATCT.
- Commissioning of the replacement ATCT, cutover of air traffic services to the replacement ATCT, and decommissioning of the existing ATCT.
- Demolition and disposal of the existing ATCT facility and associated infrastructure.

The estimated construction start date to replace the ATCT is late 2025/early 2026.



Figure 1-1. Aerial Image of Airport Property

1.3 BACKGROUND

1.3.1 Airport Information

The David Wayne Hooks Memorial Airport (ID: DWH) is located in eastern Texas within unincorporated Harris County. DWH is approximately 23 miles northwest of Houston's central business district and about 10 miles northwest of George Bush International Airport (ID: IAH) in Houston. DWH airport is privately owned by Jag Gill (Northwest Airport Management, L.P.). The airport is notable for being one of the only privately owned airports with an FAA-owned and operated airport traffic control tower (ATCT). The airport covers 480 acres including two parallel hard surface runways and a complex system of taxiways. The airport also has a seaplane landing area on the eastern side of the property (see Figure 1-1). DWH is a medium sized, primarily general aviation (GA) airport (FAA, 2023a). DWH is the one of the busiest GA airports in Texas (XO, 2024). There are 300 aircraft based at DWH: 83% single-engine, 10% multi-engine, 3% jet, and 4% helicopter (Airports - Worldwide, 2024).

The airport began as a hobby of Charles Hooks, who built a runway for his personal use. He later developed the runway into a business and added a terminal. The airport opened in the 1960s as Houston Northwest Airport; however, the airport name changed to David Wayne Hooks Memorial Airport shortly after opening. (XO, 2024)

The airport includes several flight schools including United Flight Systems, Texas Flight Schools, Silver State Helicopters, and American Flyers (XO, 2024). Support facilities at the airport include the main Gill Aviation terminal, Tomball Jet Center, helicopter services, and LifeFlight Alert center (LifeFlight 4 is on permanent standby with Memorial Herman Hospital) (Airports - Worldwide, 2024).

1.3.2 Existing Airport Traffic Control Tower Information

Constructed in July 1979, the existing FAA-owned DWH ATCT is a Hunt/Aviation Corporation (AVCO) design (see Figure 1-2). The ATCT has a cab size of 225 square feet with the cab floor at 40 ft above ground level (AGL) and a base area of 1,040 square feet. The ATCT operates daily from 7:00 am to 10:00 pm (FAA, 2024). When the tower is closed, the airspace converts to a Class G airspace from the surface to 700 feet AGL and Class E airspace above that until Class B airspace is reached. The existing ATCT is located in the center of the airport property, west of the runways at 30°04'01.2" N, 95°33'21.4" W (see Figure 1-1).



Figure 1-2. Photo of Existing Hunt/AVCO ATCT at DWH

SECTION 2 | PURPOSE AND NEED

This Purpose and Need is tiered from, and consistent with, the ATCT Final PEA (FAA ATCT Final PEA, 2023), and focuses on the specific requirements of the DWH ATCT.

2.1 PURPOSE

The DWH ATCT is an FAA-owned ATCT proposed for replacement under the ATCT Replacement Program. The purpose of the Proposed Action is to replace the DWH ATCT with a modern ATCT providing for uninterrupted air traffic control services.

The Proposed Action at this airport would provide for a modern, operationally efficient ATCT that would meet all applicable FAA requirements. This replacement ATCT would enable the installation of modern and required air traffic control equipment, improve visibility of the airport property, provide adequate space and an enhanced work environment for FAA personnel, lower operating costs, and improve environmental performance, resulting in reduced energy consumption due to an efficient design including energy efficient features, windows, and ventilation/heating systems.

2.2 NEED

The FAA recognizes the need to provide continual air traffic control services at DWH. The DWH ATCT does not have the ability to accommodate upgrades to the latest air traffic control technologies, does not meet personnel space requirements, and lacks modern amenities. During the site visit, air traffic controllers noted that the cab windows leak during heavy rain. The ATCT building recently experienced two major flood events from poor water lines and septic surcharge; some communications and electronic equipment is non-functional. Improvements made must ensure uninterrupted air traffic control services to maintain the safety of the NAS.

SECTION 3 | ALTERNATIVES

In compliance with FAA Order 6480.4B, *Airport Traffic Control Tower Siting Process*, the FAA adheres to a siting process to determine the single-most technically feasible site for the establishment or replacement of an ATCT facility (FAA, 2018). This siting process takes into consideration multiple technical criteria, as prescribed in FAA Order 6480.4B.

Representatives from the FAA and DWH airport conducted siting for this project in conjunction with the Airport Facilities Terminal Integration Laboratory (AFTIL) in Atlantic City, New Jersey in March and June 2022. The siting group met twice in-person at the William J Hughes Technical Center to participate in siting activities in accordance with Order 6480.4B to determine viable and preferred ATCT sites for a potential new ATCT (FAA, 2022).

This tiered EA evaluates the selected site alternative and no action alternative for the proposed replacement of the DWH ATCT. Other alternatives considered in the siting report were not carried forward as they did not best meet the technical siting criteria as outlined in FAA Order 6480.4B (FAA, 2023b). Figure 3-1 displays a preliminary layout plan of the proposed replacement tower at the selected site alternative.

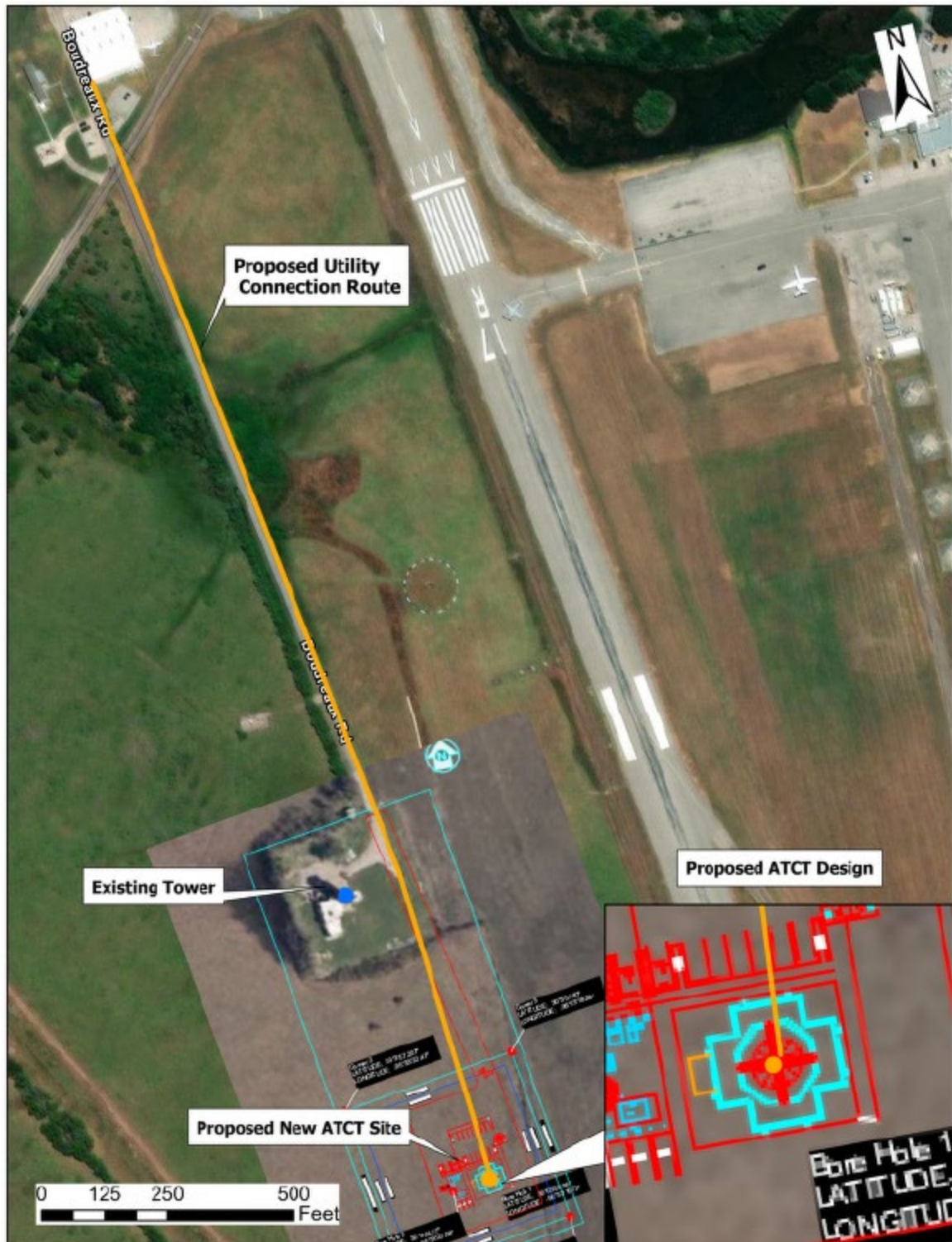


Figure 3-1. Proposed Layout of Replacement ATCT

3.1 ALTERNATIVE 1: PROPOSED ACTION (PREFERRED ALTERNATIVE)

The Proposed Action, as determined by the siting process governed by FAA Order 6480.4B, is construction and operation of a replacement ATCT at a site referred to in the siting report as Site 5. Site 5, hereinafter referred to as the proposed new ATCT site, is located at a latitude of 30°3'55.3614" N and a longitude of -95°33'19.7308" W, approximately 542 feet south from the existing ATCT. This location was deemed most technically feasible of the siting alternatives considered based on the siting criteria referenced in Chapter 3 of the PEA (FAA ATCT Final PEA, 2023).

The proposed new ATCT site, located about 800 feet northwest of the intersection of Runway 17R/35L and Taxiway E, is an approximately 3 acre site providing the most optimal visibility of the considered alternatives for air traffic control. The proposed new ATCT site is an open, regularly mowed, grassy field. The proposed tower cab floor elevation is 95 ft AGL and 247 ft above mean sea level (AMSL). At this height, controllers would have unobstructed views of all airport controlled areas and all nearby airborne traffic. The new tower would have an 8-sided, 440 square foot cab facing east. The proposed design includes space for four air traffic controller positions: Ground Control, Local Control, Flight Data, and Supervisor. Stairs would be located opposite the Ground Control position. This proposed design would allow for a safe operating environment and includes upgrades for resistance against seismic events that have the potential to occur in the area (USGS, 2022).

Existing utilities (water, power, gas, telephone) are not located at the proposed new ATCT site. New utilities would be installed along the existing and newly proposed extended access route between the proposed new ATCT site and the existing tower access road, as shown on Figure 3-1. The FAA is planning to install a dedicated well adjacent to the new tower on the proposed new ATCT site. Existing local roads would be used for construction and maintenance traffic.

The Proposed Action also includes demolition of the existing DWH ATCT. Upon demolition of the existing ATCT, the site would be converted to match similar conditions of the surrounding area. Utilities that tie into the existing ATCT would be disconnected or abandoned. Best practices for erosion and sedimentation would be implemented during the demolition process to avoid impacts to surrounding natural resources.

3.2 ALTERNATIVE 2: NO ACTION

A No Action Alternative is required to be included in this EA consistent with FAA Order 1050.1F. The No Action Alternative is defined as maintaining the status quo (baseline conditions) without federal agency involvement. The No Action Alternative is used to evaluate the effects of not replacing the ATCT and provides a benchmark against which other alternatives may be evaluated. Therefore, for purposes of comparative analysis in this EA, the No Action Alternative represents the conditions that would be anticipated if Alternative 1 (Proposed Action) were not implemented.

SECTION 4 | AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

This Section describes the existing environmental resource conditions or affected environment at DWH and surrounding areas. This Section also analyzes the anticipated environmental consequences from each alternative for each resource category.

As detailed in the ATCT Final PEA and FONSI/ROD (FAA ATCT Final PEA, 2023), the FAA identified and analyzed potential environmental impacts for the broad scope of actions planned for ATCT replacement activities (FAA ATCT Final PEA, 2023). This programmatic approach allows the FAA to review project-specific details and potential impacts during the planning, site selection, and construction process for those ATCT projects within the scope of the PEA analysis.

4.1 RESOURCE CATEGORIES PREVIOUSLY REVIEWED BY THE ATCT FINAL PEA

The ATCT Final PEA and FONSI/ROD identified seven resource categories as having “no significant impact” (FAA ATCT Final PEA, 2023). The following resource categories were reviewed for project specific impacts and determined to be consistent with the PEA in that no significant impacts are anticipated from implementation of the Proposed Action.

☒ Air Quality

☒ Climate

☐ Farmlands - This resource was programmatically cleared in the ATCT Final PEA and FONSI/ROD; however, a site-specific analysis validated the need to include within this EA due to local conditions. Section 4.2.2 includes a description of the existing environment and potential environmental consequences for farmlands.

☒ Hazardous Materials, Solid Waste, and Pollution Prevention

☒ Land Use

☒ Natural Resources and Energy Supply

☒ Noise

☒ Socioeconomics, Environmental Justice,³ and Children’s Environmental Health and Safety Risks

³ On January 21, 2025, President Trump issued Executive Order 14173, Ending Illegal Discrimination and Restoring Merit-Based Opportunity. At that time, the NEPA process for this project was already underway and FAA’s draft EA had been issued and reflected the expected scope and content of analysis in this NEPA process to include analysis of environmental justice. Due to the rescission of prior Executive Orders regarding environmental justice and the recent action by the Council on Environmental Quality (CEQ) to rescind the NEPA implementing regulations, it is no longer a legal requirement or the policy of the federal

4.2 RESOURCE CATEGORIES REQUIRING SITE-SPECIFIC ANALYSIS PER THE ATCT FINAL PEA

The ATCT Final PEA and FONSI/ROD also identified resource categories that were unlikely to be significantly impacted but would require a site-specific analysis (FAA ATCT Final PEA, 2023). In accordance with the ATCT Final PEA, this EA reviews the following resource categories:

- Farmlands – Section 4.2.1 includes a description of the existing environment and potential environmental consequences for farmlands. This resource was programmatically cleared in the ATCT Final PEA and FONSI/ROD; however, a site-specific analysis validated the need to include the resource area in this EA due to local conditions.
- Biological Resources – Section 4.2.2 includes a description of the existing environment and potential environmental consequences for biological resources.
- Coastal Resources – Section 4.2.3 includes a description of the existing environment and potential environmental consequences for coastal resources regulated by the National Oceanic and Atmospheric Administration (NOAA) under the Coastal Zone Management Act (CZMA) (16 U.S.C. §§ 1451 et seq.).
- Historical Architectural, Archaeological, and Cultural Resources – Section 4.2.4 includes a description of the existing environment and potential environmental consequences for historic and cultural resources.
- Department of Transportation (DOT) Act, Section 4(f) – Section 4.2.5 includes a description of the existing environment and potential environmental consequences for Section 4(f) properties on or near DWH.
- Visual Effects – Section 4.2.6 includes a description of the existing environment and potential environmental consequences for visual effects.
- Water Resources – Section 4.2.7 includes a description of the existing environment and potential environmental consequences for water resources.

Regulatory requirements for these resource categories can be found in more detail in the ATCT Final PEA (FAA ATCT Final PEA, 2023).

4.2.1 Farmlands

Farmland is agricultural land considered important and protected by federal, state, and local regulations. Farmland resources are considered to be prime, unique, or of statewide/local importance using the criteria provided in 7 CFR § 658.5 and regulated by the Natural Resources Conservation Service's (NRCS) Farmland Protection Policy Act. Important

government to conduct an environmental analysis. Any prior data gathering, analysis, or discussion regarding environmental justice is not relevant for purposes of evaluating the NEPA significance of this project, nor did it play any role in agency decision-making.

farmlands can include pasturelands, croplands, and forests. Farmland does not incorporate resources already developed for urban or water storage purposes (FAA, 2020)

4.2.1.1 Affected Environment

The affected environment for farmland resources is typically restricted to the construction footprint of the proposed action, unless access to important farmland is restricted or prevented as a result of the action (FAA, 2020). The proposed new ATCT site is located on Splendora-Urban land complex and the existing ATCT is located on Segno-Urban land complex; both complexes are rated as “Not Prime Farmland” (USDA NRCS, 2024a). However, the parcel that encompasses both the existing ATCT and proposed new ATCT site is listed as Land Use Code 9910: Agricultural Land per the Harris County Tax Office. In addition, during the site visit, cattle were observed grazing on the land to the west of the proposed new ATCT site (Booz Allen Hamilton, 2024a).

Although cattle were observed adjacent to the proposed new ATCT site, this parcel is utilized as airfield property and not for agricultural use. New fencing would be installed around the replacement ATCT to prohibit cattle from accessing the area surrounding the proposed new ATCT site.

4.2.1.2 Environmental Consequences

Detailed guidance on significance thresholds and effects determinations and/or factors to consider when evaluating context and intensity for farmlands resource impacts can be reviewed in the ATCT Final PEA (FAA ATCT Final PEA, 2023) and FAA Order 1050.1 Desk Reference, Section 6.1 (FAA, 2020).

Alternative 1: Proposed Action

The Proposed Action would not eliminate quality farmland as the proposed new ATCT site is currently an open area maintained by the DWH airport. As stated in Section 4.2.1.1, although the parcel that encompasses both the existing ATCT and proposed new ATCT site is listed as Land Use Code 9910: Agricultural Land per the Harris County Tax Office, the land is not currently used for agriculture. In addition, the land is identified as “Not Prime Farmland” according to the NRCS (USDA NRCS, 2024a). Although cattle have access to this land for grazing presently, the proposed action would include the addition of security fencing around the proposed new ATCT site and would therefore eliminate cattle access. The proposed action would not impact important farmland or access to important farmland.

Alternative 2: No Action Alternative

Under the No Action Alternative, the existing ATCT would not be removed and replaced, and activities associated with the ATCT would remain the same. No impacts to existing farmland resources would occur.

4.2.2 Biological Resources (including Fish, Wildlife, and Plants)

Biological resources include native plants, animals, and their habitats. Protected and sensitive biological resources include federally listed (endangered⁴ or threatened⁵), and candidate⁶ species designated by the U.S. Fish and Wildlife Service (USFWS), National Marine Fisheries Service, or a State. Sensitive habitats described in this Section include those areas designated by the USFWS as critical habitat⁷ protected by the Endangered Species Act of 1973 (ESA; 16 U.S.C. Chapter 35 § 1531 et seq.).

4.2.2.1 Affected Environment

Vegetation

The DWH airport is in the U.S. Environmental Protection Agency's (EPA) Level III Ecoregion 34 within the 34a (Northern Humid Gulf Coastal Prairies) ecoregion of Texas (EPA, 2004). The airport abuts farmlands immediately to the west and residential neighborhoods farther west and to the north, east, and south. The existing ATCT site is located west of Runway 17L/35R and the proposed ATCT is approximately 542 feet south of the existing ATCT. The proposed ATCT site is located on a vegetated, unimproved area of the airfield. The proposed new ATCT site is regularly mowed to maintain a plant height of approximately 4-inches tall. Vegetation onsite consists of grassy/scrub species including dwarf sedge (*Carex humilis*), common rush (*Juncus effusus*), smut grass (*Sporobolus indicus*), common chickweed (*Stellaria media*), white blooming pinkladies (*Oenothera speciosa*), Chinese tallow (*Triadica sebifera*), red raspberry (*Rubus idaeus*), blackberry (*Rubus subg. Rubus*), yellow thistle (*Cirsium horridulum*), and sand spikerush (*Eleocharis montevidensis*). No structures or existing utilities are present within this vegetated area.

Wildlife and Fish

Due to the proposed ATCT site being located on airport property, surrounded by airport facilities, and on a previously disturbed area (mowed grass), high quality habitat for wildlife species is not present. The proposed ATCT site is located adjacent to wetlands present on the airport property (see Section 4.2.8).

⁴ Endangered species are "any species which is in danger of extinction throughout all or a significant portion of its range" (ESA, Section 3(6))

⁵ Threatened species are "any species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range" (ESA, Section 3(20))

⁶ Candidate species are any species whose status is under review "to determine whether it warrants listing under the ESA" (ESA, Section 4)

⁷ Critical habitat refers to "(i) the specific areas within the geographical area occupied by the species, at the time it is listed in accordance with the provisions of section 4 of this Act, on which are found those physical or biological features (I) essential to the conservation of the species and (II) which may require special management considerations or protection; and (ii) specific areas outside the geographical area occupied by the species at the time it is listed in accordance with the provisions of section 4 of this Act, upon a determination by the Secretary that such areas are essential for the conservation of the species." (ESA, Section 3(5)(A))

A broad banded water snake (*Nerodia fasciata*), red-winged blackbird (*Agelaius phoeniceus*), and a crane (*Gruidae*) were observed near the wetland south of the proposed new ATCT site during the site visit. Airport personnel indicated that an Eastern river cooter (*Pseudemys concinna*) was observed at the site recently (Booz Allen Hamilton, 2024a). Highly mobile species such as birds, bats, or flying insects could be transiently present, but it is unlikely most wildlife would use the proposed new ATCT site and existing ATCT as permanent habitat. Common birds, such as the American robin (*Turdus migratorius*), non-native house sparrow (*Passer domesticus*), or mourning dove (*Zenaida macroura*), could use nearby trees or existing structures for nesting or rearing of young. The wetlands and small ponds at the airport (Figure 4-1) may provide habitat for aquatic life that attracts waterfowl and other migratory birds and raptors (Gill Aviation, 2024).

DWH is obligated to comply with the wildlife hazard management requirements, standards, and recommendations made by the FAA in Advisory Circulars. The airport developed a Dead Animals/Wildlife Mitigation Standard Operating Procedure (SOP) to maintain a safe operating environment. The SOP indicated that common wildlife encountered at DWH includes birds, deer, turtles, coyotes, crawfish, snakes, skunks, bobcats, racoons, and opossums. A “bird bang” is used to non-lethally deter birds, and other animals from the airfield to avoid strikes with aircraft (Gill Aviation, 2024) to maintain a safe operating environment.

Special Status Species

Special status species generally occupy unique or specific habitat, such as riverine forests, wetlands, or native ecosystems. The proposed ATCT site is located along the northern boundary of a Palustrine Emergent wetland recently identified on the airport property (Jacobs, 2024b). Although no federal or state-listed endangered, threatened, or candidate species have been documented or observed within the airport study area, this aquatic feature, along with the four other wetland features near the existing ATCT (one to the west and three to the southeast) were further evaluated for potential suitable habitat for three of the native species known to occur in the area: Eastern black rail (*Laterallus jamaicensis*), rufa red knot (*Calidris canutus rufa*), and whooping crane (*Grus americana*) (USFWS, 2024c). All three of these avian species are listed as federally threatened.

Table 4-1 displays the federally listed species within Harris County. According to the Texas Parks and Wildlife Department, there are 18 federally listed special status species known to occur within Harris County. A more focused search of the proposed and existing tower locations and surrounding areas using the USFWS Information for Planning and Consultation (IPaC) website identified two (2) additional species, which were not identified as federally listed in the County list, as shown in Table 4-1 (USFWS, 2024c) (Texas Parks and Wildlife Department, 2023). The IPaC list of federally protected species is provided in Appendix A.

Table 4-1. Federally Listed Species

Common Name	Scientific Name	County Listed Status	Study Area Status
Houston Toad	<i>Anaxyrus houstonensis</i>	Endangered	Endangered
Sei Whale	<i>Balaenoptera borealis</i>	Endangered	NA
Blue Whale	<i>Balaenoptera musculus</i>	Endangered	NA
Gulf of Mexico Bryde's Whale	<i>Balaenoptera ricei</i>	Endangered	NA
Rufa Red Knot	<i>Calidris canutus rufa</i>	Threatened	Threatened
Oceanic Whitetip Shark	<i>Carcharhinus longimanus</i>	Threatened	NA
Loggerhead Sea Turtle	<i>Caretta caretta</i>	Threatened	NA
Piping Plover	<i>Charadrius melodus</i>	Threatened	Threatened
Monarch Butterfly	<i>Danaus plexippus</i>	Proposed Threatened	Proposed Threatened
North Atlantic Right Whale	<i>Eubalaena glacialis</i>	Endangered	NA
Whooping Crane	<i>Grus americana</i>	Endangered	Endangered
Texas Prairie Dawn	<i>Hymenoxys texana</i>	Endangered	Endangered
Eastern Black Rail	<i>Laterallus jamaicensis</i> <i>spp. Jamaicensis</i>	Threatened	Threatened
Alligator Snapping Turtle	<i>Macrochelys temminckii</i>	Proposed Threatened	Proposed Threatened
Humpback Whale	<i>Megaptera novaeangliae</i>	NA	NA
Tricolored Bat	<i>Perimyotis subflavus</i>	NA	Proposed Endangered
Sperm Whale	<i>Physeter macrocephalus</i>	Endangered	NA
Louisiana Pigtoe	<i>Pleurobema riddellii</i>	Threatened	NA

Source: (Texas Parks and Wildlife Department, 2023) (USFWS, 2024c)

Eastern black rail is known to occur in grasslands and wetlands where the dominant vegetation consists of grasses and forbs, and in areas such as marshes or swamps that are covered, often intermittently, with shallow water or have soil saturated with moisture (USFWS, 2024a). Vegetation in the area south of the proposed new ATCT site included grasses and forbs approximately 2 feet in height, with a fragmented patch of shrubs, grasses, and forbs up to approximately 8 feet in height. As dense vegetation is key for this species type, it is not anticipated that the area south of the proposed new ATCT site with the minimal and fragmented dense vegetation would support quality habitat for Eastern black rail. In addition, the area surrounding the three wetland features to the southeast of the existing ATCT has been continuously maintained as airport property with frequent mowing and disturbance. Only a 14-foot-wide strip of dense vegetation intersects these three wetland features around the existing ATCT area. The remainder of the area surrounding these wetlands is similarly regularly mowed and maintained for aviation purposes and therefore does not represent quality suitable habitat.

A similar evaluation applies to rufa red knot. This species is a shorebird generally inhabiting marine and estuarine habitats with large areas of intertidal sediments (USFWS, 2024b). As the area surrounding these wetlands is regularly cleared for airport use and lacks sand spits,

islets, shoals, sandbars, or features associated with inlets, suitable habitat is not present. Rufa red knots migrate great distances in search of foraging habitat; however, this area does not represent attractive foraging habitat as it lacks year to year abundant food sources (USFWS, 2024b).

While whooping cranes generally inhabit wetlands, such as marshes or swamps with intermittent shallow water; the marginal wetlands southeast of the existing ATCT are likely too small and fragmented to attract whooping cranes. As the area surrounding these wetlands is regularly cleared for airport use with high frequency of disturbance, and due to the whooping crane's strong homing instinct, whooping crane is not likely to inhabit the area. The species limits their dispersal to new habitat and has not been observed on airport property in the past.

No critical habitat for species identified in the USFWS IPaC report overlap with the airport property. The USFWS maintains a geographic range map for Texas Prairie Dawn, an extremely rare flower endemic to Harris County, Texas. The range map indicates appropriate habitat surrounding and including portions of the DWH airfield (USFWS, 2022). Adult monarch butterflies feed on the nectar of flowering plants and their larva requires milkweed plants to develop. Monarch butterflies only reproduce where milkweed plants are located (USDA, n.d.). The species could use airport habitat for resting or feeding if flowering plants were present. No milkweed plants were identified during the site survey conducted in April 2024. Roosting habitat and hibernacula (places for bats to hibernate) could be present on the proposed new ATCT site for the 'proposed endangered' Tricolored Bat (*Perimyotis subflavus*) in the nearby trees, although not observed during the February 2024 site survey. It is possible for the status of this species to change to candidate, threatened, or endangered during the development of this project. Bats could use the existing tower or these trees as roosting habitat. The open, mowed space is not ideal foraging habitat for bats. Given the proximity to wetlands which represents ideal breeding conditions for many insects, a food source is present for many insect-eating species including bats.

In addition to the federally listed species above, 12 other state listed species have been documented in Harris County (Texas Parks and Wildlife Department, 2023). Mobile species such as birds, small or flying mammals, or flying insects could be found within the proposed ATCT site.

Migratory Birds

Texas is located mainly within the Central Flyway for migratory birds. The USFWS lists 10 migratory birds as potentially using or passing through the project area. These species include the American Kestrel (*Falco sparverius paulus*), bald eagle (*Haliaeetus leucocephalus*), brown-headed nuthatch (*Sitta pusilla*), chimney swift (*Chaetura pelagica*), lesser yellowlegs (*Tringa flavipes*), pectoral sandpiper (*Calidris melanotos*), prothonotary warbler (*Protonotaria citrea*), red-headed woodpecker (*Melanerpes erythrocephalus*), swallow-tailed kite (*Elanoides forficatus*), and wood thrush (*Hylocichla mustelina*). At DWH, the probability of presence for American Kestrel, bald eagle, lesser yellowlegs, wood thrush, and brown-headed nuthatch is likely during winter and spring months while the probability of presence for chimney swift, pectoral sandpiper, prothonotary warbler, red-headed woodpecker, and swallow-tailed kite is likely during summer months (USFWS, 2024c). The bald eagle is not a Bird of Conservation Concern in the study area; however, it warrants

additional attention due to its inclusion in the Bald and Golden Eagle Protection Act (16 U.S.C. 668-668d). Eagles have been observed visiting airport property (Gill Aviation, 2024). Bald eagles could be migrating, breeding, or hunting in the area; bald eagle management guidelines would apply if any nests were observed in the study area (USFWS, 2007).

Invasive Species

Invasive terrestrial plant species were observed within or surrounding the proposed ATCT site and the existing ATCT during the April 2024 site visit. Invasive plant species noted during the site visit include Chinese tallow tree (*Triadica sebifera*), common chickweed (*Stellaria media*), and Bermuda grass (*Cynodon Dactylon*) (Booz Allen Hamilton, 2024a). Twenty-four additional plant species are listed as invasive grass/grasslike habitats in Texas and have the potential to be present within the study area (Texas Invasives, ND). Noxious and invasive plant species can be spread by vehicles, machinery, wildlife, and by natural forces such as by wind or water. Areas that are disturbed through construction, by vehicles, or fire may be vulnerable to the introduction and spread of noxious weeds.

4.2.2.2 Environmental Consequences

Detailed guidance on significance thresholds and effects determinations for biological resource impacts can be found in the ATCT Final PEA (FAA ATCT Final PEA, 2023) and FAA Order 1050.1 Desk Reference, Section 2.3.1 (FAA, 2020).

Alternative 1: Proposed Action

The Proposed Action would involve construction on a previously cleared portion of the DWH property and demolition of the existing ATCT. The proposed new ATCT site consists of a regularly mowed grass lot with wetland habitat adjacent to the south. The construction of the proposed new ATCT is not anticipated to encroach upon these wetlands. While none of the species identified during the April 2024 site visit were determined to be protected species, protected species may still use the wetland habitat for nesting and hunting. The proposed demolition of the existing ATCT is also not anticipated to encroach upon the wetland habitat to the west of the existing ATCT. No critical habitat exists at this location and construction activities are not likely to impact any wildlife and/or fish, migratory birds, or special status species. Texas Prairie Dawn has been documented to have suitable habitat within the airport property; however, the species was not observed during the April 2024 site visit. However, the proposed access road extension may impact the three wetland features identified by Jacobs (see Figure 4-3).

As the proposed design has not been finalized, it is assumed that there would be a take of these wetlands (refer to Section 4.2.7.2). A portion of the access road to the proposed new ATCT site was further evaluated for suitable habitat for several special status species (Figure 4-1). Informal consultation under Section 7 of the Endangered Species Act was initiated with U.S. Fish and Wildlife Service (USFWS) on February 6, 2024, for a request of the IPaC report to identify species with the potential for presence within the study area (see Appendix A). These aquatic features were evaluated as potential habitat for three of the special status species, as described in Section 4.2.2.1; however, these wetlands do not represent suitable habitat for the protected species. No federal or state-listed endangered, threatened, or candidate species have been documented or observed within the airport study area. There would be no significant impacts to protected species from the Proposed Action.

The proposed new ATCT site is located approximately 542 feet south of the existing ATCT and 570 feet west of Runway 17R/35L. Although the proposed new tower would require additional lighting, the new exterior lighting is unlikely to result in any new effects on wildlife species given its proximity to the existing ATCT. The increased lighting at the proposed new ATCT site is not anticipated to increase the overall effect of lighting on wildlife at the existing airport. The increase of human foot traffic, vehicle traffic, and heavy equipment usage during construction and demolition could introduce noxious weeds and invasive plant species to the construction and demolition sites; however, these impacts are not anticipated. The proposed ATCT would be landscaped with species native to the Harris County area.

The Proposed Action would also involve the demolition of the existing tower. The area of the existing tower would be converted to land similar to the surrounding area. The demolition of the existing tower would not cause impacts to biological resources.

Alternative 2: No Action Alternative

Under the No Action Alternative, the existing ATCT would not be removed and replaced, and activities associated with the ATCT would remain the same. No impacts to existing biological resources would occur.

4.2.2.3 Best Management Practices

In order to maintain native species to the Houston area throughout the process of constructing the proposed new ATCT and demolishing the existing ATCT, landscaping activities would be conducted only with species native to the Houston area.

4.2.3 Coastal Resources

Coastal resources are the natural resources occurring within coastal waters and adjacent shorelands. Coastal resources include islands, transitional and intertidal areas, salt marshes, wetlands, floodplains, estuaries, beaches, dunes, barrier islands, and coral reefs, as well as fish and wildlife and their respective habitats within these areas.

The DWH airport is landlocked and not adjacent to or near any coastal or inland shorelines, regulated by the NOAA under the CZMA (16 U.S.C. §§ 1451 et seq.). The Texas Coastal Zone boundary extends into Houston via the Buffalo Bayou River, and north to the southernmost end of Lake Houston, approximately 22 miles and 26 miles southeast of DWH respectively (The Texas General Land Office, NA). Although Harris County does have a portion of land within the CZMA boundary, DWH is approximately 21 miles northwest of the nearest boundary line. The nearest essential fish habitat is located 17.4 miles east of DWH and protects red drum, shrimp, reef fish, and coastal migratory pelagic species (NOAA, 2021). Given the distance to coastal resources, coastal resources are not anticipated to be impacted by the Proposed Action and this resource category is not analyzed further within this EA.

4.2.4 Historical, Architectural, Archaeological, and Cultural Resources

Historic and cultural resources are sites, structures, buildings, districts, or objects associated with important historic events or people, demonstrating design or construction associated with a historically significant movement, or with the potential to yield historic or prehistoric

data, that are considered important to a culture, a subculture, or a community for scientific, traditional, religious, or other reasons (NPS, 1997). Historic and cultural resources may be subdivided into the following categories: Archaeological resources, Architectural resources, Native resources, and Traditional Cultural Properties.

4.2.4.1 Affected Environment

In accordance with applicable federal laws and regulations, the FAA evaluated the proposed alternatives and APE for historic and cultural resources. The APE is “the geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties, if any such properties exist” (36 Code of Federal Regulations [CFR] § 800.16(d)). The FAA assessed previously identified cultural resources within the APE and the potential for unidentified resources for each alternative.

Actions that have the potential to affect historic and cultural resources typically involve construction, ground disturbance, or modification of a historic property or a property in the viewshed of a historic property or district. Other effects to consider include noise, vibration, lighting, and increased traffic. The APE consists of a one-mile radius around the project area and is defined as the area shown on Figure 4-1.

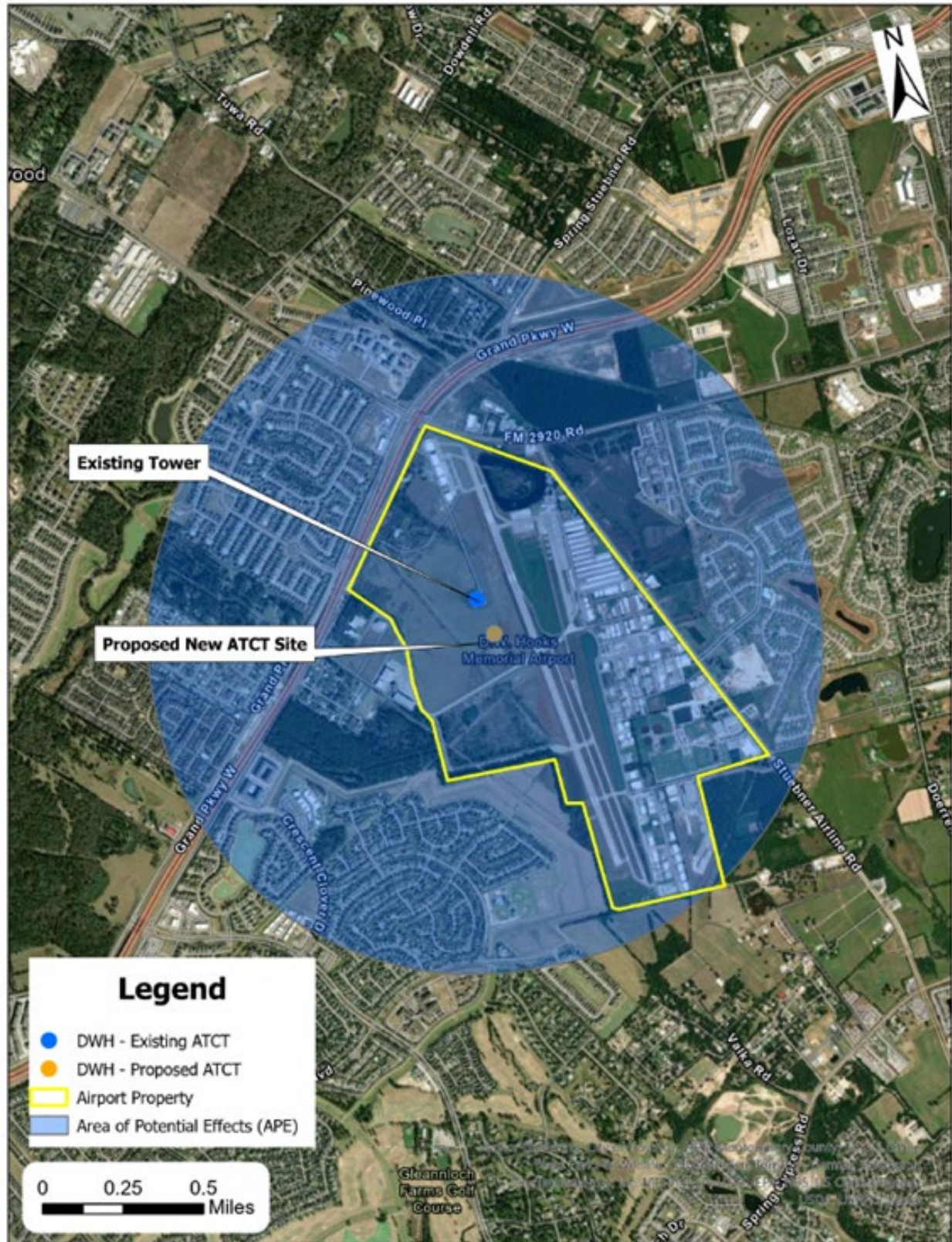


Figure 4-1. Area of Potential Effects (APE)

The first aviation activity on what is today known as David Wayne Hooks Memorial Airport began when Charles Hooks Jr. constructed a runway on his property in 1963 for his personal use. The property, originally known as Houston Northwest Airport, was renamed David Wayne Hooks Memorial Airport in 1967 after Hooks' son who died in a plane accident (Tomball Area Diamond Jubilee, Inc., 1982). In 1989, Hooks sold the airport to the Gill family and the name officially changed to David Wayne Hooks Memorial Airport at Gill Aviation. Today the airport is currently one of the largest private airports in the United States and provides fixed-base operator (FBO) services and is home to several flying schools (Johnson, 2015).

No historic properties are shown within a one-mile radius of the airport on the National Park Service's (NPS) National Register of Historic Places (NRHP) Database or the Texas Historic Sites Atlas (NPS, 2020) (Texas Historical Commission, 2024).

The existing ATCT proposed for demolition is a Hunt/AVCO tower type commissioned in 1979. The Hunt/AVCO standard ATCT design consists of a square functional steel framed shaft supporting a hexagonal steel framed cab. In the early to mid-1970s, this modular type ATCT was constructed at numerous low activity level airports. The prefabricated nature for the whole tower construction allowed the towers to be erected in a very short time from a "kit of parts". The FAA commissioned the first Hunt ATCT in July 1971. Most of the Hunt/AVCO towers were commissioned in the 1973-1975 timeframe with the design type predominately phased out by the end of the 1970s (FAA, 2021).

Review of historical aerial photographs and topographic maps indicates that there has been little activity in the project area, which includes the location of the existing ATCT and the location of the proposed new ATCT, contained within the APE, since the late 20th century (Nationwide Environmental Title Research, LLC., 2024). Prior to its use as an airfield, the project area and surrounding land appears to have been used for agriculture (Jacobs Engineering Group, Inc., 2024a). Foundations for a concrete apron first appear on the airport property in 1964 along with three hangar buildings and two additional structures. By 1973, a paved north/south runway was installed. That period also saw the construction of a seaplane landing strip located between the runway and the apron—one of five landlocked airports in the lower 48 states with a water runway (Kirk, 2014). During this period, the airport added roughly 20 buildings to the south end of the apron and 3 buildings and a lake at the northern end of the property. By 1982, the airport added buildings throughout the apron, extended it and the runway to the south, and built paved taxiways to the west side of the runway. By 2002, in addition to new buildings and demolitions, the airport installed helipads at the north end of the apron. Additional small buildings were added to the property throughout the 21st century to the present (Nationwide Environmental Title Research, LLC., 2024).

The greater Houston area has a rich aviation history highlighted by National Aeronautics and Space Administration mission control at the Johnson Space Center and the childhood home and gravesite of aviator and inventor Howard Hughes; however, the city of Tomball, the closest city to the airport, and Harris County, Texas, where the airport is located, have no notable association with historic aviation.

4.2.4.2 Environmental Consequences

Detailed guidance on significance thresholds and effects determinations for historical, architectural, archaeological, and cultural resources impacts can be found in the ATCT Final PEA (FAA ATCT Final PEA, 2023) and FAA Order 1050.1 Desk Reference, Chapter 8 (FAA, 2020).

Alternative 1: Proposed Action

The Proposed Action would not impact historic or cultural resources within the APE. Based on a 2024 archaeological review by the Jacobs Engineering Group, the Texas Historical Commission (THC), the Texas State Historic Preservation Office (SHPO), determined on March 4, 2024, that no historic properties are present or would be affected by the undertaking (Jacobs Engineering Group, Inc., 2024a). The THC determined the undertaking, which includes demolition of the existing ATCT, would not affect above-ground historic properties. Therefore, the existing ATCT is not considered a historic property, and the demolition of the existing ATCT would not result in impacts to historic or cultural resources. Because no pimple mounds are within the project area, an archaeological survey was not required by the THC (Jacobs Engineering Group, Inc., 2024a).

The FAA consulted with the THC on the undertaking on February 23, 2024, and received its concurrence on March 4, 2024 (Appendix B). The FAA also initiated consultation and notified Federally Recognized Tribes with known affiliations with and interests in the project area of the FAA's Finding of No Historic Properties Affected on October 16, 2024. Tribes included: Alabama-Coushatta Tribe of Texas; Apache Tribe of Oklahoma; Comanche Nation, Oklahoma; Coushatta Tribe of Louisiana; Kickapoo Traditional Tribe of Texas; Tonkawa Tribe of Indians of Oklahoma; and Ysleta del Sur Pueblo. No responses from these parties were received within or after the 30-day review period.

Alternative 2: No Action Alternative

Under the No Action Alternative, the existing ATCT would not be removed and replaced, and activities associated with the ATCT would remain the same. No impacts to existing historical, architectural, archaeological, and cultural resources would occur.

4.2.4.3 Unanticipated Discoveries

As mentioned in letters to Section 106 consulting parties, if during construction, demolition, and/or maintenance activities any unanticipated cultural resources are discovered, activity would cease in the area of the resource and the appropriate state, federal, and tribal officials would be notified and given the opportunity to review (FAA, 2020). The uncovered resources would be protected. In compliance with all applicable laws and regulations, the FAA would coordinate with the appropriate consulting parties and consider their recommendations, conduct appropriate actions, then provide a report of those actions after they are completed (36 CFR 800.13).

4.2.5 Department of Transportation Act, Section 4(f)

Section 4(f) of the U.S. DOT Act of 1966 (codified in 49 U.S.C. § 303 and 23 U.S.C. § 138) applies to projects that receive funding from or require approval by agencies within the DOT and provides for the consideration of certain properties of national, state, and/or local

significance during transportation project development, such as: publicly owned parks, recreational areas, wildlife and waterfowl refuges, and public and private historic sites.

Before approving a transportation project requiring the use of these properties, the DOT agency must determine that there is no feasible and prudent alternative to using that land and the project includes all possible planning to minimize harm resulting from the use (FAA, 2020).

4.2.5.1 Affected Environment

In general, actions that have the potential to affect Section 4(f) properties involve a physical or constructive use. Further detail on what constitutes a physical or constructive occupation of the property may be found in the ATCT Final PEA.

According to the Bureau of Land Management (BLM) National Data Viewer, there are no listed recreational sites or wildlife refuges listed within the study area (Bureau of Land Management, 2024). Gleannloch Farms Bark Park (approximately 1.50 miles southwest of the study area) is a public dog park that is the nearest public park to DWH.

Airport personnel indicated that people fish at the pond located on the northern end of the airport (Figure 4-1). This pond is located approximately 0.40 miles northeast of the proposed new ATCT site. As this area is owned and maintained by DWH airport and open for public recreation use, it is categorized as a Section 4(f) resource.

No historic properties listed on the NRHP are shown within a one-mile radius of the airport on the NPS's NRHP Database (NPS, 2020).

4.2.5.2 Environmental Consequences

Detailed guidance on significance thresholds and effects determinations for Section 4(f) resources impacts can be found in the ATCT Final PEA (FAA ATCT Final PEA, 2023) and FAA Order 1050.1 Desk Reference, Chapter 5 (FAA, 2020).

Alternative 1: Proposed Action

The Proposed Action would not impact any Section 4(f) resources. Although the pond used for fishing is 0.40 miles from the study area (Figure 4-1), the new tower would be further from the pond than the existing tower and would result in no limitations to fishing at the pond or recreational enjoyment of the pond. Gleannloch Farms Bark Park would not be impacted by the Proposed Action. The Proposed Action, including the demolition of the existing tower, would have no impact on Section 4(f) resources.

Alternative 2: No Action Alternative

Under the No Action Alternative, the existing ATCT would not be removed and replaced, and activities associated with the ATCT would remain the same. No impacts to existing DOT 4(f) resources would occur.

4.2.6 Visual Effects

Visual effects are considered under two categories: light emissions and visual resources/character. Light emissions from outdoor lighting in parking lots, streets, and within businesses or homes affect the darkness of the night sky, particularly in rural areas

where fewer light sources are present. Visual character is the overall description of an area, such as rural, farmland, urban, coastal, or mountainous. (FAA, 2020)

4.2.6.1 Affected Environment

The proposed ATCT site is located approximately 542 feet south of the existing ATCT and positioned centrally within the study area shown on Figure 1-1. As such, the proposed new ATCT site is within the same viewshed of the existing ATCT. The surrounding area is characterized by rural and agricultural land with residential housing neighborhoods adjacent to the northwest and southwest of the airport. It is unlikely that surrounding residential neighborhoods and the Gleannloch Farms sports complex southeast of DWH would have the new ATCT within their viewshed due to the presence of trees, commercial buildings, and hangars providing a buffer to block the view. The nearest sensitive receptor is a small residential neighborhood located approximately 0.43 miles southwest of the proposed new ATCT site. Light emissions are a highly subjective resource due to the difference in perception and value that a user associates with the specific feature and surrounding landscape.

Light Emissions

The DWH ATCT operates daily from 6:00 am to 10:00 pm and the lighting of the runways, taxiways, and other airfield safety lights are controlled by air traffic controllers. Currently, the airport operates in the standard configuration at night with light emissions from the following areas: runways, taxiways, navigational aids, apron areas, parking lots, FBO, and terminal building. DWH is located adjacent to a major transportation corridor (State Highway 99) to the northwest. Light emission from airport activities has the potential to impact residential areas and other sensitive land uses. Currently, light emission at DWH does not conflict with neighboring residential and other land uses. Due to the proximity of the proposed ATCT to the existing tower that would be removed, there are no anticipated impacts from light emissions to nearby sensitive receptors.

Wildlife, especially nocturnal species, may be sensitive to nighttime light sources which may disrupt migratory or breeding cycles. As mentioned in Section 4.2.3.2, the light-sensitive tricolored bat was not identified as a species of concern within the study area. Due to the lack of habitat within the study area, it is not likely that this mobile species would utilize habitat surrounding the tower for roosting or nesting. It is possible that the species would utilize the wetland habitat to forage for insect, though tricolored bats are typically found in dense forested areas (USFWS, 2022).

Visual Resources and Visual Character

Visual resources around the proposed new ATCT site are consistent with those of the existing ATCT at DWH. The area surrounding the existing airport is characterized as agricultural and rural with dense residential neighborhoods surrounding the airport. Visual resources surrounding the airport property include agricultural land, local roadways, and highways (Google Earth, 2024). As stated above, Gleannloch Farms Bark Park is located within 1.5 miles of the airport and may be within the viewshed of the existing and replacement towers. The nearest residential area is located 0.43 miles southwest of the proposed new ATCT site. Other visual resources within the existing airport environment include active runways and taxiways, a commercial service passenger terminal building, a

maintenance building, fuel storage building, air cargo facilities, aircraft storage hangars, and FBO buildings. The tallest structure at DWH is the ATCT having a cab floor eye level elevation of 40 ft AGL. The proposed tower would be 100 ft AGL at the cab floor eye level and may be visible from a farther distance than the existing tower.

4.2.6.2 Environmental Consequences

Detailed guidance on significance thresholds and effects determinations for visual resource impacts can be found in the ATCT Final PEA (FAA ATCT Final PEA, 2023) and FAA Order 1050.1 Desk Reference, Section 13.3.3 (FAA, 2020).

Alternative 1: Proposed Action

The Proposed Action would involve construction of the new ATCT on previously cleared airport property. The proposed ATCT site is located approximately 542 feet south of the existing ATCT and adjacent to agricultural land to the west and wetlands to the south. The reflective surfaces of the new ATCT and support building could alter the visual character of the airport area due to the tower height and change to the viewshed. However, the change in location of light emission from the existing tower to the new tower is unlikely to create additional light emissions once the existing tower is decommissioned, and the new tower is operational. The addition of a newly lit parking area for the proposed ATCT would result in new light emissions as there is no existing lighting at the proposed new ATCT site. The closest visual receptors, the residential neighborhood approximately 0.43 miles southwest of the proposed new ATCT site, would receive minimal to no effects from the shift in location of airport related lighting. The changes in lighting are not anticipated to affect the visual nature of the area or increase the existing lighting emitted from the airport.

Changes to visual resources and visual character from construction of the new tower and removal of the existing tower would not affect or obstruct visually important resources. Although the new proposed ATCT would be 60 ft taller than the existing DWH ATCT, it would not contrast with the area's visual character upon completion due to the study area being an existing and active airport. The replacement tower may be within the viewshed of the Gleannloch Farms Bark Park; however, the existing tower would also likely already be within the park's viewshed and thus would not alter the visual character of the park. General enjoyment of the park is anticipated to remain unchanged from the Proposed Action.

Alternative 2: No Action Alternative

Under the No Action Alternative, the existing ATCT would not be removed and replaced, and activities associated with the ATCT would remain the same. No impacts to existing visual effects would occur.

4.2.7 Water Resources

Water resources include wetlands, floodplains, surface water, groundwater, and Wild and Scenic rivers. These resources provide drinking water, irrigation, and other water uses for communities, in addition to recreation and transportation opportunities, and habitat for vegetation and wildlife species.

4.2.7.1 Affected Environment

Wetlands

The USFWS National Wetlands Inventory (NWI) identifies approximately 23 distinct wetlands within the study area, as shown on Figure 4-3 (EPA, 2024). The majority of these wetlands have been designated as freshwater emergent wetlands; however, two wetlands within the study area are designated as freshwater forested/shrub wetlands. These two wetland features, both freshwater emergent wetlands, are located within close proximity to both the existing and proposed ATCT sites. The nearest wetland to the proposed new ATCT site is a 1.66-acre freshwater emergent wetland located approximately 150 ft to the south/southwest of the proposed new ATCT site and the nearest wetland to the existing ATCT is a 0.40 freshwater emergent wetland located approximately 100 feet west of the existing ATCT (Booz Allen Hamilton, 2024a).

Approximately 0.38 miles northeast of the proposed new ATCT site is an 8.66-acre wetland designated as a freshwater pond, which is also identified on the National Wetland Inventory (NWI), shown on Figure 4-3. DWH manages a 7.51-acre freshwater pond as a sea plane runway approximately 0.28 miles southeast of the proposed new ATCT site (EPA, 2024). Surface water and wetland features are shown in Figure 4-3.

In January 2024, Jacobs Engineering Group performed an aquatic resource delineation to identify the wetlands within a 5.10-acre survey boundary around the existing ATCT and proposed new ATCT site that included the proposed access road extension area, as shown on Figure 4-2 (Jacobs, 2024b). The Aquatic Features Delineation Report (AFDR) identifies and describes aquatic resources, including four wetlands within the survey boundary: two Palustrine Emergent Wetlands (PEM), one Palustrine Scrub-Shrub Wetland (PSS), and one Palustrine, Emergent, Persistent, Seasonally Flooded (PEM1C). In total, these wetlands make up 0.59-acres. Three of these wetlands (approximately 0.11-acres) are located within the footprint of the proposed access road (shown on Figure 3-1) at the northern end near the existing ATCT. One wetland feature (approximately 0.47-acres) is located south of the proposed new ATCT site consistent with a wetland previously identified on the NWI at the southern boundary of the project area (see Figure 4-3).

Jacobs Engineering Group submitted the AFDR to the USACE on February 15, 2024, initiating consultation under Section 404 of the Clean Water Act and requesting a jurisdictional determination or “No Permit Required” verification. On January 15, 2025, the USACE provided an approved jurisdictional determination which confirms that the 5.1-acre project site does not contain any waters of the U.S. and the wetlands shown on Figure 4-2 are not considered waters of the U. S.

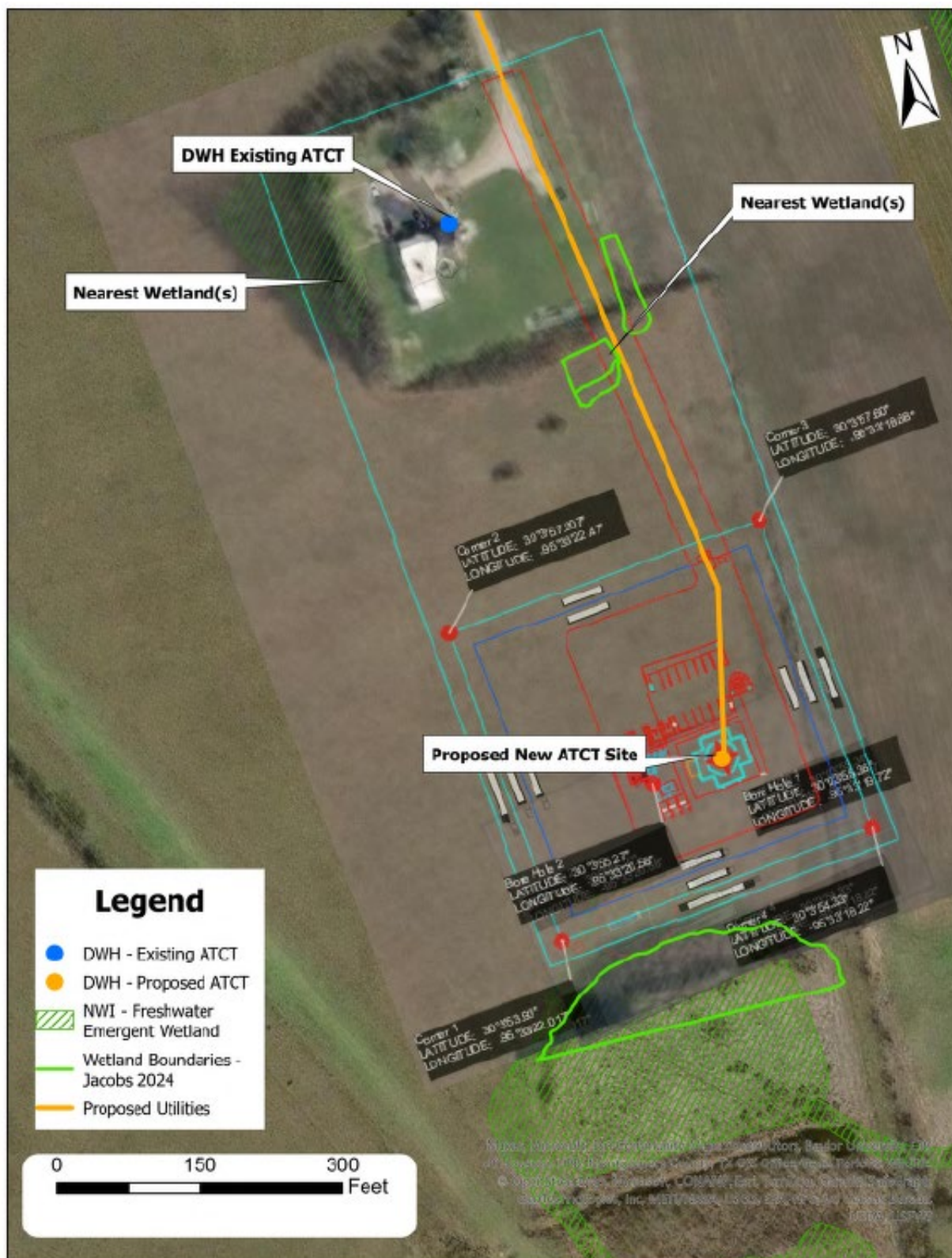


Figure 4-2. Wetland Delineation Map (Jacobs, 2024b)

Floodplains

According to the Federal Emergency Management Agency's (FEMA) National Flood Hazard Layer (NFHL) Viewer, the proposed new ATCT site is located within an area of minimal flood hazard and is therefore not located within a 100- or 500-year FEMA floodplain (FEMA, 2024).

Surface Water

Surface water features present at DWH include two manmade freshwater ponds, a retention pond (used for recreational fishing), and a seaplane runway, shown on Figure 4-1. There are no streams located within the study area. The nearest stream, Willow Creek, is located 1.00 miles northwest of the proposed new ATCT site. Willow Creek flows northward and discharges to Spring Creek approximately 5 miles northeast of DWH. Wetland and surface water features in the proximity of the proposed ATCT site are shown on Figure 4-2. (Booz Allen Hamilton, 2024b)

Groundwater

The study area is located within the Gulf Coast aquifer system which includes the Chicot-Evangeline (undifferentiated) and Jasper aquifers. These aquifers are composed of laterally discontinuous deposits of gravel, sand, silt, and clay. In 2023, the Jasper aquifer was recorded at -250 to -300 feet below sea level and the Chicot-Evangeline (undifferentiated) aquifer was recorded at -100 to -150 feet below sea level. The nearest sole source aquifers are the Chicot Aquifer System approximately 100 miles east of DWH and the Edwards Aquifers I & II approximately 133 miles west of DWH. Groundwater in the Gulf Coast aquifer system generally flows towards the southeast, to the coast of Texas. (Bruun, Jackson, & Lake, 2016) (USGS, 2023)

Wild and Scenic Rivers

There are no wild or scenic rivers located near DWH. The only section of river in Texas classified as wild or scenic is a 191-mile stretch of the Rio Grande along the border with Mexico. The wild and scenic section of the Rio Grande is located approximately 380 miles west of DWH. (National Wild and Scenic Rivers System, 2024)

4.2.7.2 Environmental Consequences

Detailed guidance on significance thresholds and effects determinations for water resource impacts can be found in the ATCT Final PEA (FAA ATCT Final PEA, 2023) and FAA Order 1050.1 Desk Reference, Sections 14.1.3 through 14.5.3.1 (FAA, 2020).

Alternative 1: Proposed Action

The Proposed Action would cause temporary, short term surface disturbing activities in the span of approximately 3 acres involving increased vehicle traffic and use of machinery. As the property lease line for the proposed new ATCT is located approximately 10-feet north of the wetland boundary to the south, no ground disturbance or other direct impacts would occur to this wetland. The wetlands to the west of the existing ATCT, as shown on Figure 4-2 and in the AFDR (Appendix C), would likely experience temporary, indirect impacts from the demolition of the ATCT. Approximately 0.11-acres of wetland to the southeast of the existing ATCT would likely experience direct impacts from fill and grading due to the construction of the proposed access road extension to the proposed new ATCT site.

Based on preliminary design, permanent change and/or filling of the wetland to the south of the proposed new ATCT is not anticipated to occur. Indirect impacts could occur to this wetland due to the addition of impervious surface to the area surrounding the wetland and redirection of stormwater flow, along with the addition of new drainage infrastructure.

These indirect and temporary impacts are anticipated for the wetlands west of the existing ATCT as well. Implementing mitigation measures that include erosion and sedimentation controls would reduce and/or prevent impacts to aquatic resources on site.

The three wetlands southeast of the existing ATCT make up approximately 0.11-acres of wetland (as shown on Figure 4-2). These wetlands would be directly impacted due to fill and grading for the construction of the access road extension to the proposed new ATCT site. The FAA and Jacobs Engineering Group submitted the AFDR to the USACE on February 15, 2024, to initiate consultation under Section 404 of the Clean Water Act and request concurrence with the determinations. On January 15, 2025, the USACE provided concurrence with an approved jurisdictional determination which confirms that the 5.1-acre project site does not contain any waters of the U.S. This concurrence confirms the project is not subject to Section 404 or Section 10 permit requirements.

Although these wetland features are not considered jurisdictional, the FAA remains responsible to “minimize the destruction, loss or degradation of wetlands, and to preserve and enhance the natural and beneficial values of wetlands” regardless of jurisdictional status or applicable regulatory framework, per Executive Order 11990⁸ and DOT Order 5660.1A.⁹ Following the USACE approved jurisdictional determination in January 2025, the FAA coordinated with local authorities to identify appropriate mitigation strategies to shift a portion of wetland to the west of the proposed ATCT access road. Mitigation actions the FAA

⁸ <https://www.federalregister.gov/executive-order/11990>

⁹ https://www.environment.fhwa.dot.gov/env_topics/documents/DOT_Order_5660.1a.pdf

plans to perform to meet the requirements of these regulations are described in Section 4.2.7.3.

As stated above, DWH is in an area of minimal flood hazard and no impacts to floodplains are likely to result from the Proposed Action.

Disruption of soil surfaces, introduction of non-native plant species through transfer of seeds, and contamination of soils from chemicals such as hydraulic fluids or petroleum leaks could occur during ground disturbing activities. Runoff containing contaminated soil could result in offsite interface with surface waters downstream from the proposed new ATCT site and the existing ATCT, such as Willow Creek, but is unlikely. Soil, sediment, or chemical runoff could directly or indirectly damage water quality, alter habitat from sediment build-up, or cause changes to the ecosystems from the introduction of non-native species. The increased presence of heavy construction equipment, fuels, chemicals, or solvents during construction/demolition activities could affect groundwater if spills or leaks were to occur. The severity would depend on the volume or duration of the spill or leak and ability to respond appropriately. Applying BMPs and measures such as spill/leak monitoring and runoff prevention could reduce or prevent impacts to groundwater from excavation and construction.

As the ground disturbance resulting from implementation of the Proposed Action would likely exceed one acre, and the project has the potential to discharge to the wetland located within the study area, a National Pollutant Discharge Elimination System (NPDES) construction stormwater general permit would be required. For construction projects that disturb less than five acres, like the Proposed Action, the operator may apply for a waiver from permit requirements if the site is in a region and during seasons with low erosion potential levels (TCEQ, 2023).

Excavation volume and depth for foundation structural components is unknown at this time. As such, groundwater could be encountered during excavation and construction activities. If this were to occur and pumping was required to extract water and continue construction, the excess water may be discharged offsite through the DWH stormwater system. Discharging this water could result in sediment and chemical runoff where outflow occurs. Disruption of groundwater or groundwater flow could occur at excavation sites and where placement of structural components is located, however these potential impacts would be temporary in nature. Applying runoff and contamination prevention BMPs and mitigation measures could reduce or prevent impacts to groundwater from excavation and construction.

As there are no Wild or Scenic Rivers within 380 miles of the study area, there would be no significant impacts to this resource from the Proposed Action.

The Proposed Action would also involve the demolition of the existing tower. The area of the existing tower would be converted to land similar to the surrounding area and would not cause impacts to the three neighboring wetlands or water resources in proximity of the existing tower.

Alternative 2: No Action Alternative

Under the No Action Alternative, the existing ATCT would not be removed and replaced, and activities associated with the ATCT would remain the same. No impacts to existing water resources would occur.

4.2.7.3 Mitigation

Mitigation to offset unavoidable impacts to water resources allow for onsite absorption of rainwater such as permeable surfaces, allowing natural drainage processes, and erosion prevention measures. Descriptions of recommended management practices for these wetlands, surface water, and groundwater are described below.

The FAA plans to perform on-site mitigation for the wetland disturbance caused by the construction of the access road by shifting the portion of the disturbed wetland to the west of the road. The newly created wetland would be located adjacently south of the wetland area marked as 'nearest wetland' (shown on Figure 4-2 on the west side of the proposed utility line) and would recreate the same amount of wetland displaced by construction of the road. This in-kind replacement would be contiguous with the existing wetland and would result in no net loss of wetlands onsite. The FAA has coordinated with the Harris County Soil and Water Conservation District and the local U.S. Department of Agriculture (USDA) NRCS office to determine best practices for this effort. In addition, the FAA has coordinated with the Harris County Flood District to ensure mitigation efforts align with flood district goals. Design for the wetland shift would ensure the constructed wetland matches the ecological functionality of the wetland displaced by the construction of the proposed ATCT access road. The design would follow, to the maximum extent practical, the best practices outlined in the *Harris County Flood Control District Wet Bottom Detention Basins with Water Quality Features* (Harris County Flood Control District, 2014).

The City of Houston Flood Control District has developed a Storm Water Management Handbook for Construction Activities for use within Harris County (City of Houston, 2006). This document provides general guidance related to erosion and sediment controls and other measures to control storm water pollutants from construction activities. In addition, the Texas DOT has published a separate Storm Water Management Guidelines for Construction Activities which provide guidance on the use of storm water management measures for state highway construction projects. (TxDOT, 2018)

As the ground disturbance resulting from implementation of the Proposed Action exceeds one acre, and the project has the potential to discharge to the wetland located within, and adjacent south, of the study area, a National Pollutant Discharge Elimination System (NPDES) construction stormwater general permit would be required. The Texas Commission on Environmental Quality (TCEQ) is the NPDES permitting authority for the state of Texas. Key requirements of this construction general permit would include the development of a stormwater pollution prevention plan. For construction projects that disturb less than five acres, like the Proposed Action, the operator may apply for a waiver from permit requirements if the site is in a region and during seasons with low erosion potential levels (TCEQ, 2023).

Measures for reducing runoff and erosion, as described below, would prevent or reduce sediment and the introduction of non-native plant species from degrading nearby wetlands.

These BMPs should be implemented within the study area to avoid the potential for temporary construction impacts to adjacent wetlands and Willow Creek.

- Use pervious surfaces where practicable.
- Control runoff, while ensuring the runoff control measure do not attract wildlife hazardous to aviation.
- Control waste and spoils disposal to prevent contaminating ground and surface water, while not attracting wildlife hazardous to aviation (e.g., control the use of pesticides and herbicides, maintain vegetative buffers to reduce sedimentation and delivery of chemical pollutants to the waterbody).
- Limit ground disturbance to the areas necessary for project-related construction.
- Employ erosion control measures to minimize sedimentation of surface waters.
- Restore vegetation on disturbed areas to prevent soil erosion following project completion.

BMPs to reduce direct impacts to groundwater include, but are not limited to, the following:

- Protect water quality of surface water runoff that may infiltrate into the ground.
- Restore vegetation on disturbed areas to prevent soil erosion following project completion.
- Limit the area of new impervious surfaces to the areas necessary for project-related construction.

4.3 CUMULATIVE IMPACTS

The CEQ regulations implementing the procedural provisions of NEPA of 1969, as amended defines cumulative effects as:

“the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions” (40 CFR Part 1508.7).

Based on these regulations, if the alternative does not have direct or indirect effects, there can be no cumulative effects resulting from the project because there would be no impacts added to past, present, or reasonably foreseeable actions.

The CEQ regulations also describe cumulative impacts as impacts that “can result from individually minor but collectively significant actions taking place over a period of time” (40 CFR Part 1508.7).

Although the ATCT Final PEA (FAA ATCT Final PEA, 2023) indicated that the ATCT Program would not result in cumulative impacts, this EA included a site-specific analysis to confirm that no cumulative impacts would result locally.

Harris County maintains a summary of infrastructure projects completed, in construction, and in design. Most of the anticipated infrastructure improvements within Harris County

involve road paving and expansion. The nearest construction project to DWH is the expansion of Hufsmith-Kohrville Road from two lanes to four to improve safety and allow for more traffic (2.75 miles southeast of DWH) (Harris County Commissioner, ND). The current, proposed, and recent county infrastructure improvements would not contribute to cumulative impacts associated with the tower replacement project.

The only known projects proposed at DWH airport at this time are the construction of the DWH ATCT and the demolition of the existing ATCT, which are covered within this EA. No past, present, or reasonably foreseeable actions have occurred recently or are planned to occur now or in the reasonably foreseeable future.

Future plans at the airport aim to develop hangars at the southeast corner of the airport property and realign the runway intersection; however, these projects have not yet been planned or designed. As such, these projects are not reasonably foreseeable and cannot be specifically evaluated as potential cumulative impacts in this EA (Booz Allen Hamilton, 2024a).

4.4 CONCLUSION

This site-specific EA evaluates the existing environment at DWH and analyzes the potential environmental consequences of the Proposed Action. The cumulative impact of the replacement ATCT presented in this EA is not anticipated to result in significant impacts or significant cumulative impacts to either human health or the environment.

SECTION 5 | PUBLIC INVOLVEMENT

The FAA provided a 508-compliant electronic copy of the Draft EA for review by the public on the following website: https://www.faa.gov/air_traffic/atf on October 16, 2024. Concurrently, the FAA published a Notice of Availability in the Houston Chronicle to advertise the availability of the Draft EA and allow the public to view the document electronically and where/how to submit comments. The FAA did not receive any comments on the Draft EA during the public comment period ending November 20, 2024.

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APPENDIX A | FEDERALLY LISTED SPECIES REPORTS FOR HARRIS COUNTY AND THE STUDY AREA

This appendix contains the list of threatened, endangered, candidate, or species under review by the U.S. Fish and Wildlife Service for Harris County, Texas. Appendix A also provides site-specific species list, critical habitat, migratory birds, and other information.



United States Department of the Interior

FISH AND WILDLIFE SERVICE

Texas Coastal & Central Plains Esfo
17629 El Camino Real, Suite 211
Houston, TX 77058-3051
Phone: (281) 286-8282 Fax: (281) 488-5882



In Reply Refer To:
Project Code: 2025-0052032
Project Name: DWH Airport

02/05/2025 14:49:06 UTC

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The U.S. Fish and Wildlife Service (Service) field offices in Clear Lake, Corpus Christi, Fort Worth, and Alamo, Texas, have combined administratively to form the Texas Coastal Ecological Services Field Office. All project related correspondence should be sent to the field office address listed below responsible for the county in which your project occurs:

Project Leader; U.S. Fish and Wildlife Service; 17629 El Camino Real Ste. 211; Houston, Texas 77058

Angelina, Austin, Brazoria, Brazos, Chambers, Colorado, Fayette, Fort Bend, Freestone, Galveston, Grimes, Hardin, Harris, Houston, Jasper, Jefferson, Leon, Liberty, Limestone, Madison, Matagorda, Montgomery, Newton, Orange, Polk, Robertson, Sabine, San Augustine, San Jacinto, Trinity, Tyler, Walker, Waller, and Wharton.

Assistant Field Supervisor, U.S. Fish and Wildlife Service; 4444 Corona Drive, Ste 215; Corpus Christi, Texas 78411

Aransas, Atascosa, Bee, Brooks, Calhoun, De Witt, Dimmit, Duval, Frio, Goliad, Gonzales, Hidalgo, Jackson, Jim Hogg, Jim Wells, Karnes, Kenedy, Kleberg, La Salle, Lavaca, Live Oak, Maverick, McMullen, Nueces, Refugio, San Patricio, Victoria, and Wilson.

U.S. Fish and Wildlife Service; Santa Ana National Wildlife Refuge; Attn: Texas Ecological Services Sub-Office; 3325 Green Jay Road, Alamo, Texas 78516
Cameron, Hidalgo, Starr, Webb, Willacy, and Zapata.

For questions or coordination for projects occurring in counties not listed above, please contact arles@fws.gov.

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your

Project code: 2025-0052032

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proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the Service under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2) (c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at: <http://www.fws.gov/media/endangered-species-consultation-handbook>.

Non-Federal entities may consult under Sections 9 and 10 of the Act. Section 9 and Federal regulations prohibit the take of endangered and threatened species, respectively, without special exemption. "Take" is defined as to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect, or to attempt to engage in any such conduct. "Harm" is further defined (50 CFR § 17.3) to include significant habitat modification or degradation that results in death or injury to listed species by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering. "Harass" is defined (50 CFR § 17.3) as intentional or negligent actions that create the likelihood of

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injury to listed species to such an extent as to significantly disrupt normal behavior patterns which include, but are not limited to, breeding, feeding or sheltering. Should the proposed project have the potential to take listed species, the Service recommends that the applicant develop a Habitat Conservation Plan and obtain a section 10(a)(1)(B) permit. The Habitat Conservation Planning Handbook is available at: <https://www.fws.gov/library/collections/habitat-conservation-planning-handbook>.

Migratory Birds:

In addition to responsibilities to protect threatened and endangered species under the Act, there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts visit: <https://www.fws.gov/program/migratory-birds>.

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable National Environmental Policy Act (NEPA) documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures see <https://www.fws.gov/library/collections/threats-birds>.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Code in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List
- Bald & Golden Eagles
- Migratory Birds
- Wetlands

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Project code: 2025-0052032

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OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Texas Coastal & Central Plains Esfo
17629 El Camino Real, Suite 211
Houston, TX 77058-3051
(281) 286-8282

Project code: 2025-0052032

02/05/2025 14:49:06 UTC

PROJECT SUMMARY

Project Code: 2025-0052032

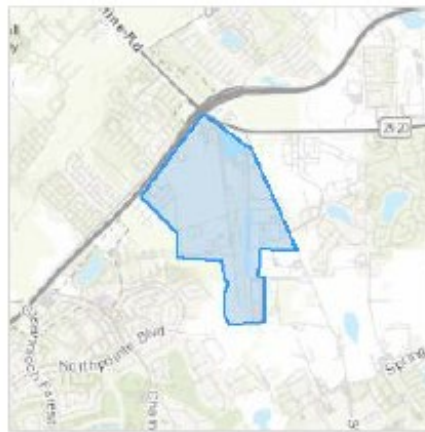
Project Name: DWH Airport

Project Type: Airport - Maintenance/Modification

Project Description: ATCT Replacement

Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@30.06350405,-95.55397602378105,14z>



Counties: Harris County, Texas

Project code: 2025-0052032

02/05/2025 14:49:06 UTC

ENDANGERED SPECIES ACT SPECIES

There is a total of 8 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Note that 2 of these species should be considered only under certain conditions.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

-
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Project code: 2025-0052032

02/05/2025 14:49:06 UTC

MAMMALS

NAME	STATUS
<p>Tricolored Bat <i>Perimyotis subflavus</i></p> <p>No critical habitat has been designated for this species.</p> <p>Species profile: https://ecos.fws.gov/ecp/species/10515</p>	<p>Proposed</p> <p>Endangered</p>

BIRDS

NAME	STATUS
<p>Eastern Black Rail <i>Laterallus jamaicensis ssp. jamaicensis</i></p> <p>No critical habitat has been designated for this species.</p> <p>Species profile: https://ecos.fws.gov/ecp/species/10477</p>	Threatened
<p>Piping Plover <i>Charadrius melodus</i></p> <p>Population: [Atlantic Coast and Northern Great Plains populations] - Wherever found, except those areas where listed as endangered.</p> <p>There is final critical habitat for this species. Your location does not overlap the critical habitat.</p> <p>This species only needs to be considered under the following conditions:</p> <ul style="list-style-type: none"> Wind related projects within migratory route. <p>Species profile: https://ecos.fws.gov/ecp/species/6039</p>	Threatened
<p>Rufa Red Knot <i>Calidris canutus rufa</i></p> <p>There is proposed critical habitat for this species. Your location does not overlap the critical habitat.</p> <p>This species only needs to be considered under the following conditions:</p> <ul style="list-style-type: none"> Wind related projects within migratory route. <p>Species profile: https://ecos.fws.gov/ecp/species/1864</p>	Threatened
<p>Whooping Crane <i>Grus americana</i></p> <p>Population: Wherever found, except where listed as an experimental population</p> <p>There is final critical habitat for this species. Your location does not overlap the critical habitat.</p> <p>Species profile: https://ecos.fws.gov/ecp/species/758</p>	Endangered

REPTILES

NAME	STATUS
<p>Alligator Snapping Turtle <i>Macrochelys temminckii</i></p> <p>No critical habitat has been designated for this species.</p> <p>Species profile: https://ecos.fws.gov/ecp/species/4658</p>	<p>Proposed</p> <p>Threatened</p>

INSECTS

NAME	STATUS
<p>Monarch Butterfly <i>Danaus plexippus</i></p> <p>There is proposed critical habitat for this species. Your location does not overlap the critical habitat.</p> <p>Species profile: https://ecos.fws.gov/ecp/species/9743</p>	<p>Proposed</p> <p>Threatened</p>

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FLOWERING PLANTS

NAME	STATUS
Texas Prairie Dawn-flower <i>Hymenoxys texana</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/6471	Endangered

CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

BALD & GOLDEN EAGLES

Bald and Golden Eagles are protected under the Bald and Golden Eagle Protection Act ² and the Migratory Bird Treaty Act (MBTA) ¹. Any person or organization who plans or conducts activities that may result in impacts to Bald or Golden Eagles, or their habitats, should follow appropriate regulations and consider implementing appropriate avoidance and minimization measures, as described in the various links on this page.

1. The [Bald and Golden Eagle Protection Act](#) of 1940.
2. The [Migratory Birds Treaty Act](#) of 1918.
3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

There are Bald Eagles and/or Golden Eagles in your [project](#) area.

Measures for Proactively Minimizing Eagle Impacts

For information on how to best avoid and minimize disturbance to nesting bald eagles, please review the [National Bald Eagle Management Guidelines](#). You may employ the timing and activity-specific distance recommendations in this document when designing your project/activity to avoid and minimize eagle impacts. For bald eagle information specific to Alaska, please refer to [Bald Eagle Nesting and Sensitivity to Human Activity](#).

The FWS does not currently have guidelines for avoiding and minimizing disturbance to nesting Golden Eagles. For site-specific recommendations regarding nesting Golden Eagles, please consult with the appropriate Regional [Migratory Bird Office](#) or [Ecological Services Field Office](#).

If disturbance or take of eagles cannot be avoided, an [incidental take permit](#) may be available to authorize any take that results from, but is not the purpose of, an otherwise lawful activity. For assistance making this determination for Bald Eagles, visit the [Do I Need A Permit Tool](#). For assistance making this determination for golden eagles, please consult with the appropriate Regional [Migratory Bird Office](#) or [Ecological Services Field Office](#).

Ensure Your Eagle List is Accurate and Complete

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Project code: 2025-0052032

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If your project area is in a poorly surveyed area in IPaC, your list may not be complete and you may need to rely on other resources to determine what species may be present (e.g. your local FWS field office, state surveys, your own surveys). Please review the [Supplemental Information on Migratory Birds and Eagles](#), to help you properly interpret the report for your specified location, including determining if there is sufficient data to ensure your list is accurate.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to bald or golden eagles on your list, see the "Probability of Presence Summary" below to see when these bald or golden eagles are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Bald Eagle <i>Haliaeetus leucocephalus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Sep 1 to Jul 31

PROBABILITY OF PRESENCE SUMMARY

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read "[Supplemental Information on Migratory Birds and Eagles](#)", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Green bars; the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during that week of the year.

Breeding Season (■)

Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.

Survey Effort (|)

Vertical black lines; the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

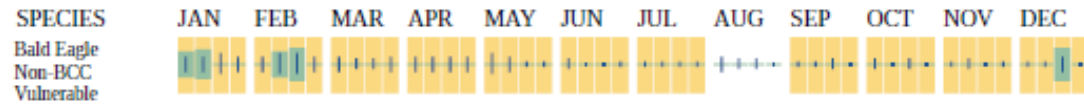
No Data (—)

A week is marked as having no data if there were no survey events for that week.

■ probability of presence ■ breeding season | survey effort — no data

Project code: 2025-0052032

02/05/2025 14:49:06 UTC



Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds>
- Nationwide avoidance and minimization measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>
- Supplemental Information for Migratory Birds and Eagles in IPaC <https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

MIGRATORY BIRDS

The Migratory Bird Treaty Act (MBTA) ¹ prohibits the take (including killing, capturing, selling, trading, and transport) of protected migratory bird species without prior authorization by the Department of Interior U.S. Fish and Wildlife Service (Service). The incidental take of migratory birds is the injury or death of birds that results from, but is not the purpose, of an activity. The Service interprets the MBTA to prohibit incidental take.

1. The [Migratory Birds Treaty Act](#) of 1918.
2. The [Bald and Golden Eagle Protection Act](#) of 1940.
3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, see the "Probability of Presence Summary" below to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
American Kestrel <i>Falco sparverius paulus</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9587	Breeds Apr 1 to Aug 31

Project code: 2025-0052032

02/05/2025 14:49:06 UTC

NAME	BREEDING SEASON
<p>Bald Eagle <i>Haliaeetus leucocephalus</i></p> <p>This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.</p> <p>https://ecos.fws.gov/ecp/species/1626</p>	Breeds Sep 1 to Jul 31
<p>Brown-headed Nuthatch <i>Sitta pusilla</i></p> <p>This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA</p> <p>https://ecos.fws.gov/ecp/species/9427</p>	Breeds Mar 1 to Jul 15
<p>Chimney Swift <i>Chaetura pelagica</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p> <p>https://ecos.fws.gov/ecp/species/9406</p>	Breeds Mar 15 to Aug 25
<p>Henslow's Sparrow <i>Centronyx henslowii</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p> <p>https://ecos.fws.gov/ecp/species/3941</p>	Breeds elsewhere
<p>Kentucky Warbler <i>Geothlypis formosa</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p> <p>https://ecos.fws.gov/ecp/species/9443</p>	Breeds Apr 20 to Aug 20
<p>Lesser Yellowlegs <i>Tringa flavipes</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p> <p>https://ecos.fws.gov/ecp/species/9679</p>	Breeds elsewhere
<p>Pectoral Sandpiper <i>Calidris melanotos</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p> <p>https://ecos.fws.gov/ecp/species/9561</p>	Breeds elsewhere
<p>Prothonotary Warbler <i>Protonotaria citrea</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p> <p>https://ecos.fws.gov/ecp/species/9439</p>	Breeds Apr 1 to Jul 31
<p>Red-headed Woodpecker <i>Melanerpes erythrocephalus</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p> <p>https://ecos.fws.gov/ecp/species/9398</p>	Breeds May 10 to Sep 10
<p>Swallow-tailed Kite <i>Elanoides forficatus</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p> <p>https://ecos.fws.gov/ecp/species/8938</p>	Breeds Mar 10 to Jun 30

Project code: 2025-0052032

02/05/2025 14:49:06 UTC

NAME	BREEDING SEASON
Wood Thrush <i>Hylocichla mustelina</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9431	Breeds May 10 to Aug 31

PROBABILITY OF PRESENCE SUMMARY

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read ["Supplemental Information on Migratory Birds and Eagles"](#), specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Green bars; the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during that week of the year.

Breeding Season (■)

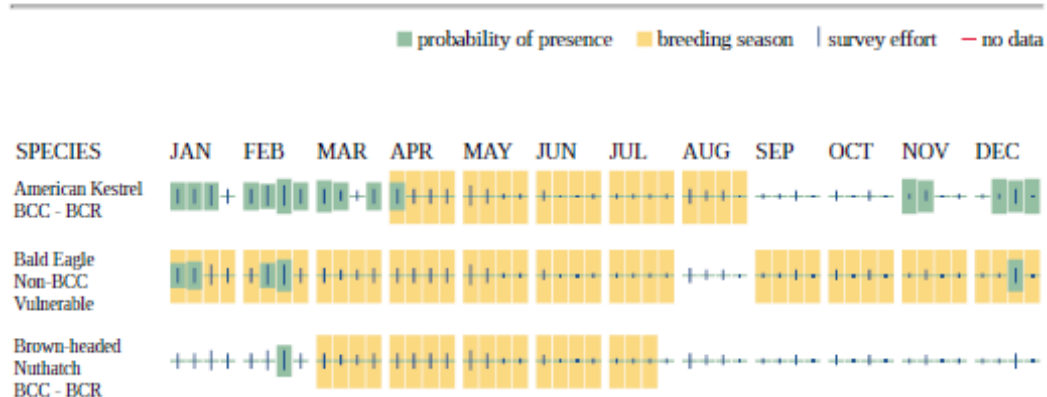
Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.

Survey Effort (h)

Vertical black lines; the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data (—)

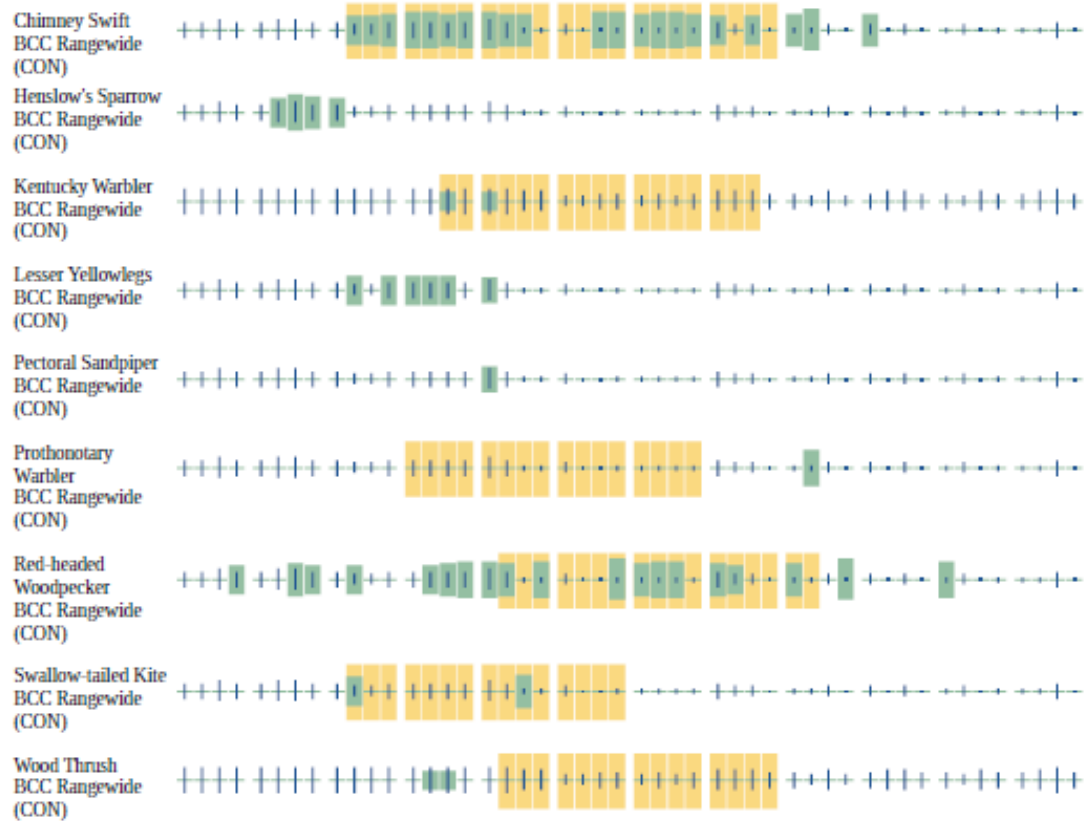
A week is marked as having no data if there were no survey events for that week.



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Project code: 2025-0052032

02/05/2025 14:49:06 UTC



Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds>
- Nationwide avoidance and minimization measures for birds
- Supplemental Information for Migratory Birds and Eagles in IPaC <https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

WETLANDS

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

Project code: 2025-0052032

02/05/2025 14:49:06 UTC

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

FRESHWATER EMERGENT WETLAND

- PEM1F
- PEM1Fx
- PEM1Cx
- PEM1C
- PEM1A

RIVERINE

- R4SBC

FRESHWATER FORESTED/SHRUB WETLAND

- PSS1C

FRESHWATER POND

- PUBHx

Project code: 2025-0052032

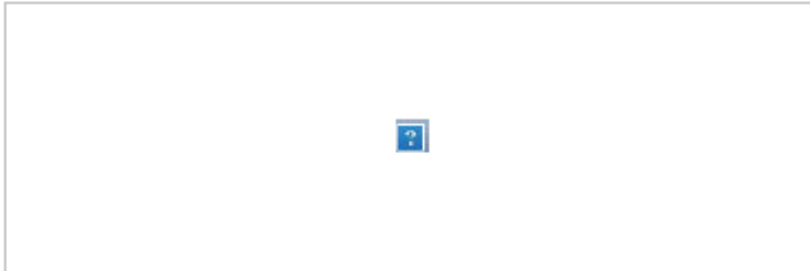
02/05/2025 14:49:06 UTC

IPAC USER CONTACT INFORMATION

Agency: Federal Aviation Administration
Name: Marissa Carvalho
Address: 1349 W Peachtree Street NW
City: Atlanta
State: GA
Zip: 30305
Email: marissacarvalho92@gmail.com
Phone: 4047902092

APPENDIX B | SHPO CONCURRENCE

From: noreply@thc.state.tx.us <noreply@thc.state.tx.us>
 Sent: Monday, June 17, 2024 9:45 AM
 To: Kiel, Lindsay <Lindsay.Kiel@jacobs.com>; reviews@thc.state.tx.us
 Subject: [EXTERNAL] David Wayne Hooks Memorial Airport (DWH) Airport Traffic Control Tower (ATCT)



**Re: Project Review under Section 106 of the National Historic Preservation Act
 THC Tracking #202410538**

Date: 06/17/2024

David Wayne Hooks Memorial Airport (DWH) Airport Traffic Control Tower (ATCT)
 9125 Boudreaux Road

Description: FAA has requested that we receive THC concurrence that no additional archaeological survey is required since no pimple mounds are located within or adjacent to the project area. The attached memo was drafted summarizing initial THC consultation.

Dear Lindsay Kiel:

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.

The review staff, led by Justin Kockritz and Emily Dylla, 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

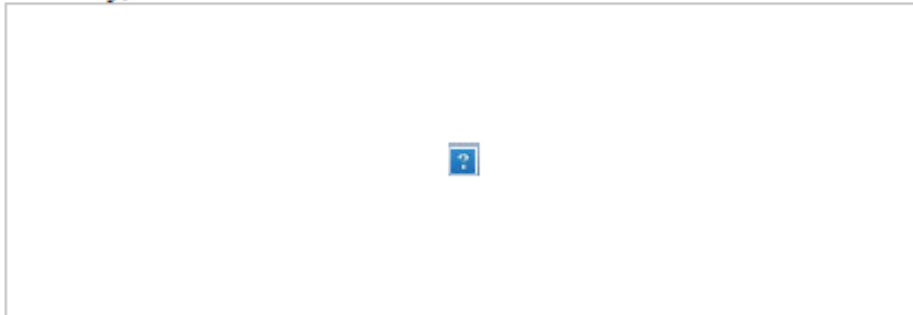
- No historic properties affected. However, if cultural materials are encountered

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.

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.dylla@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.

NOTICE - This communication may contain confidential and privileged information that is for the sole use of the intended recipient. Any viewing, copying or distribution of, or reliance on this message by unintended recipients is strictly prohibited. If you have received this message in error, please notify us immediately by replying to the message and deleting it from your computer.

APPENDIX C | USACE REQUEST FOR JURISDICTIONAL DETERMINATION AND CONCURRENCE

REQUEST FOR CORPS JURISDICTIONAL DETERMINATION (JD)
or "NO PERMIT REQUIRED" VERIFICATION (NPR)

Send to: *Regulatory Division, Compliance Branch, 2000 Fort Point Road, Galveston, Texas 77550*

I am requesting a JD or NPR on property located at: 9125 Boudreaux Road, Tomball, Texas 77375

(Street Address)

City/Township/Parish: Tomball County: Harris State: TX

Acreage of Parcel/Review Area for JD: 5.10 ac.

Latitude (decimal degrees): 30.065336° Longitude (decimal degrees): -95.555847°

(For linear projects, please include the center point of the proposed alignment.)

* Require also a survey/plat map and/or a vicinity map identifying location & boundaries of subject parcel.*

☐ I currently own or lease this property/parcel.

☐ I plan to purchase this property/parcel & have approval from the landowner; or under contract for finalizing the purchase of the parcel.

☒ I am an agent/consultant acting on behalf of the requester & approval from the landowner.

☐ Other (please explain): _____

Reason for this request: (check as many as applicable)

☐ I intend to construct/develop a project and/or perform activities on this parcel and this request is *accompanied by my permit application* and the JD is to be used in the permit evaluation process. (PJD and/or AJD)

☐ I intend to construct/develop a project and/or perform activities in or effecting a "navigable water of the U.S." (PJD or AJD)

☒ A Corps response (JD or NPR) is *required prior to obtaining local/state authorization and/or associated resource funding*. (PJD or AJD)

☐ I intend to construct/develop a project and/or perform activities on this parcel which would be *designed to avoid all aquatic resources*. (AJD and/or PJD)

☐ I intend to construct/develop a project and/or perform activities on this parcel which would be *designed to avoid all jurisdictional aquatic resources under Corps authority*. (AJD)

☐ I intend to *contest jurisdiction* over a particular aquatic resource and request the Corps confirm that jurisdiction does/does not exist over the aquatic resource on the parcel. (AJD)

☐ I believe that the site may be *comprised entirely of dry land*. (AJD)

☐ Other: _____

Type of jurisdictional determination (JD) or a no permit required verification (NPR) being requested:

☐ I am requesting an approved jurisdictional determination (AJD).

☒ I am requesting a preliminary jurisdictional determination (PJD).

☐ I am requesting a NPR letter as I believe my proposed activity is not regulated. (NPR)

☐ I am unclear as to what I would like to request and require additional information to inform my decision.

By signing below, you are indicating that you have the legal authority, or are acting as the duly authorized agent of a person(s) or entity with such authority, to and do hereby grant Corps personnel right of entry to legally access the site if needed to perform the action requested. Your signature shall be an affirmation that you possess the requisite property rights to request such action on the subject property (or properties).

Signature: _____

Date: _____

Typed or Printed Name: _____

Mailing Address: _____

Daytime Phone Number: _____ Email Address: _____

Authorities: Rivers and Harbors Act, Section 10, 33 USC 403; Clean Water Act, Section 404, 33 USC 1344; Marine Protection, Research, and Sanctuaries Act, Section 103, 33 USC 1413; Regulatory Program of the U.S. Army Corps of Engineers; Final Rule for 33 CFR Parts 320-332.

Principal Purpose: The information that you provide will be used in evaluating your request to determine whether there are any aquatic resources within the project area subject to federal jurisdiction under the regulatory authorities referenced above and/or if a Department of the Army Permit is required for a proposed action.

Routine Use: This information may be shared with the Department of Justice and other federal, state, and local government agencies, and the public, and may be made available as part of a public notice as required by federal law. Your name and property location where federal jurisdiction is to be determined will be included in the approved jurisdictional determination (AJD), which will be made available to the public on the District's website and on the Headquarters USACE website.

Disclosure: Submission of requested information is voluntary; however, if information is not provided, the request for an AJD cannot be evaluated nor can an AJD be finalized.



David Wayne Hooks Memorial Airport (DWH), Air Traffic Control
Tower (ATCT) Project
Harris County, Texas

Aquatic Features Delineation Report

January 2024

Federal Aviation Administration





Aquatic Features Delineation Report

David Wayne Hooks Memorial Airport, Air Traffic Control Tower Project, Harris County, Texas

Project No: D3286023
Document Title: Aquatic Features Delineation Report
Date: January 2024
Client Name: Federal Aviation Administration (FAA)
Project Manager: Dominador Tirona
Author: Kelly Velligan

Jacobs Engineering Group Inc.

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United States
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www.jacobs.com

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

January 15, 2025

Compliance Branch

SUBJECT: **SWG-2024-00252**; David Wayne Hooks Memorial Airport (DWH), Approved Jurisdictional Determination, No Permit Required, Approximate 5.1 Acre Site, 9125 Boudreaux Road, Tomball, Harris County, Texas

Mr. David K. Hull
Federal Aviation Administration (FAA)
10101 Hillwood Parkway
Fort Worth, Texas 76244

Dear Mr. Hull:

This letter is in response to the letter submitted on April 16, 2024, requesting an Approved Jurisdictional Determination. The project site is located at 9125 Boudreaux Road, Tomball, Harris County, Texas (map enclosed).

The Corps of Engineers has the regulatory responsibility over two 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. Based on our desk review conducted on August 9, 2024, we determined that the 5.1-acre project site does not contain waters of the United States. Therefore, the project site is not subject to Section 404 or Section 10 and the discharge of dredged and/or fill material, work and/or structures on the project sites does not require a Department of the Army permit. The project site was evaluated for potential wetlands using the Atlantic and Gulf Coastal Plain Region Supplement to the 1987 Corps of Engineers Wetland Delineation Manual, which requires a dominance of hydrophytic vegetation, wetland hydrology indicators and hydric soils under normal conditions.

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).

-2-

The 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 purposes 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 approved jurisdictional determination (AJD) for this subject site and is valid for 5 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 this AJD, you may request an administrative appeal under Corps regulations at 33 CFR Part 331. Enclosed you will find a 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 Southwestern Division Office at the following address:

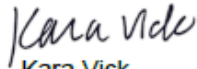
Mr. Jamie Hyslop
Administrative Appeals Review Officer
Southwest Division (CESWD-PD-O)
U.S Army Corps of Engineers
1100 Commerce Street, Suite 831
Dallas, Texas 75242-1317
Telephone: 469-216-8834
Email: Jamie.r.Hyslop@usace.army.mil

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.

-3-

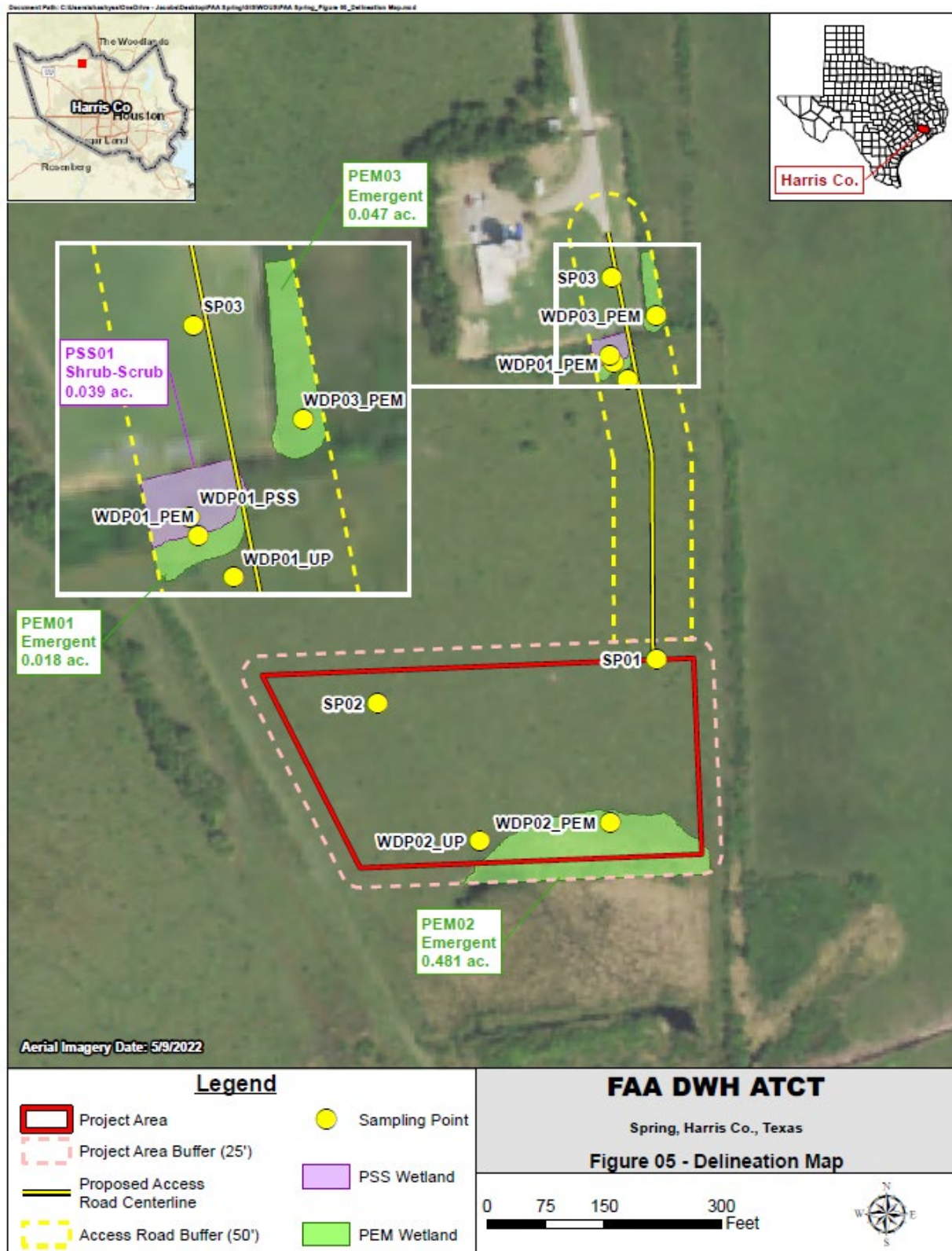
If you have any questions concerning this matter, please reference file number **SWG-2024-00252** and contact Mr. Shawn Hillen at the letterhead address, via email at Shawn.P.Hillen@usace.army.mil or by telephone at 409-766-3985. To assist us in improving our service to you, please complete the survey 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,



Kara Vick
Team Lead
Compliance Branch

Enclosures





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

CESWG-RD-C

15 January 2025

MEMORANDUM FOR RECORD

SUBJECT: US Army Corps of Engineers (Corps) Pre-2015 Regulatory Regime Approved Jurisdictional Determination in Light of *Sackett v. EPA*, 598 U.S. 651, 143 S. Ct. 1322 (2023),¹ SWG-2024-00252.

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.² 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.³ For the purposes of this AJD, we have relied on section 10 of the Rivers and Harbors Act of 1899 (RHA),⁴ 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 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.

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 33 CFR 331.2.

³ Regulatory Guidance Letter 05-02.

⁴ 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.

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- 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).
 - i. WDP01_PEM; 0.02 acre, (30.066543, -95.555615), Non-adjacent, non-jurisdictional
 - ii. WDP01_PSS; 0.04 acre, (30.066588, -95.555624), Non-adjacent, non-jurisdictional
 - iii. WDP02_PEM; 0.48 acre, (30.064830, -95.555720), Non-adjacent, non-jurisdictional
 - iv. WDP03_PEM; 0.05 acre, (30.066588, -95.555624), Non-adjacent, non-jurisdictional

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. 651, 143 S. Ct. 1322 (2023)
- e. 2008 Rapanos guidance: "In addition, ditches (including roadside ditches) excavated wholly in and draining only uplands and that do not carry a relatively permanent flow of water are generally not waters of the United States because they are not tributaries, or they do not have a significant nexus to downstream traditional navigable waters."
- f. 24 July 2020 Memo, "Joint Memorandum to the Field Between the U.S. Department of the Army, Corps of Engineers and the U.S. Environmental Protection Agency Concerning Exempt Construction or Maintenance of Irrigation Ditches and Exempt Maintenance of Drainage Ditches Under Section 404 of the Clean Water Act".

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3. REVIEW AREA. The project area is a 5.1-acres tract located at 9125 Boudreaux Road, Tomball, Harris County, Texas. The center coordinates of the site are Latitude 30.065336 N, Longitude -95.555847 W
4. NEAREST TRADITIONAL NAVIGABLE WATER (TNW), INTERSTATE WATER, OR THE TERRITORIAL SEAS TO WHICH THE AQUATIC RESOURCE IS CONNECTED. Cypress Creek: Listed on the Galveston District Navigable Waters List
5. FLOWPATH FROM THE SUBJECT AQUATIC RESOURCES TO A TNW, INTERSTATE WATER, OR THE TERRITORIAL SEAS. The WDP02_PEM about a non-relatively permanent drainage ditch, Path A, which then flows 3.55 river miles to a relatively permanent water (RPW), Theiss Gully. Theiss Gully flows approximately 3.19 river miles before connecting to Spring Gully an (RPW) the at flows approximately 1.07 miles to Cypress Creek, a Traditional Navigable water (TNW).
6. SECTION 10 JURISDICTIONAL WATERS⁵: 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 10.⁶ 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.

⁵ 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.

⁶ 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.

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- a. TNWs (a)(1): N/A
- b. Interstate Waters (a)(2): N/A
- c. Other Waters (a)(3): N/A
- d. Impoundments (a)(4): N/A
- e. Tributaries (a)(5):
- 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").⁷ 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. They are not waters of the United States as per the preamble.
- 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. N/A
- 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

⁷ 51 FR 41217, November 13, 1986.

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- 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 the data sources listed in #9 and our 9 August 2024 desk review, we have determined WDP01_PEM (0.02 acre), WDP01_PSS (0.04) extends west northwest 406 feet and WDPO3_PEM (0.05) extends east, 12 feet outside of the review area, reside in small depressional areas. Wetlands, WDP01_PEM WDP01_PSS and WDPO3_PEM are surround by uplands. These aquatic features do not touch a tributary, culvert, ditch, and swale. WDP02_PEM (0.05 acre) extends 174 feet outside of the review area. The WDP02_PEM abut a non-relatively permanent drainage ditch, Path A, which then flows 3.55 river miles (18744 linear feet) to a relatively permanent water (RPW), Thiess Gully. Thiess Gully flows approximately 3.19 river miles (16,819 linear feet) into Spring Gully (1.07 river miles) to Cypress Creek before connecting to Cypress Creek, a Traditional Navigable water (TNW). The non-relatively permanent drainage ditch is created from uplands, does not meet the definition of a tributary, and is non-jurisdictional. Several Google Earth aerials (December 2019, November 2020, February 2022, April 2022, and July 2022) do not indicate water present in the drainage ditch, Path A. Thiess Gully is a relatively permanent water as all of the Google Earth photos show water present and is a named waterbody in the 2022 Tomball Quad Topographic Map which connects to Spring Gully and then Cypress Creek, a requisite water, this distance of 3.55 river miles from Wetland WDP02_PEM to Thiess Gully, the nearest RPW is too far to be considered a continuous surface connection. Although the ditch is non relatively permanent water, it may serve as a physical connection that maintains a continuous surface connection between an adjacent wetland and a relatively permanent water. “Non-relatively permanent ditches, other non-relatively permanent channels, and culverts are features that can serve as all or part of a continuous surface

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connection depending on the factual context, because these features often have physical indicators of flow (e.g., bed and bank and other indicators of an ordinary high water mark) that provide evidence that the features physically connect wetlands to jurisdictional waters, including during storm events, bank full periods, and/or ordinary high flows. As stated in Regulatory Guidance Memo NWK-2022-00809, “weak indicators of flow frequency (e.g. bed and bank and other indicators of a OHWM) and duration as well as long distances and chain of features between the wetlands and the relatively permanent water can be too extended and tenuous to constitute a continuous surface connection”. Considering these factors together, and consistent with *Sackett*, the series of non-relatively permanent features, ditches, culverts, and the length do not meet the continuous surface connection requirement for WDP02_PEM. Furthermore, the Environmental Protection Agency Headquarters and Assistant Secretary of the Army for Civil Works Memorandum on NWK-2024-00392 states that “as the length of the surface connection increases, even with stronger indicators of flow, the length of the connection can become no longer physically close, such that the discrete features are no longer providing a continuous physical connection”. The memorandum further stated that “after consideration of flow, the number, the types, and the length of the connection, the 725-foot length of connection between the wetland and the requisite covered water is not physically close enough to meet the continuous surface connection requirement”. They concluded that the wetland did not have continuous surface connection to the downstream relatively permanent tributary and not adjacent. In this case, we determined that Wetland WDP02_PEM with its 3.55 river mile connection to Theiss Gully, the nearest requisite water, is not physically close enough to meet the continuous surface connection requirement and is not adjacent to Theiss Gully. Therefore, WDP01_PEM, WDP01_PSS, WDP02_PEM, WDP03_PEM 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. These wetlands are not subject to Section 404 of the Clean Water Act.

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. Desk Review; 9 August 2024
 - b. Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant; Jacobs Engineering Group submitted on 17 April 2024
 - c. U.S. Geological Survey map(s); 2022 Tomball, Texas Quadrangle
 - d. USDA Natural Resources Conservation Service Soil Survey; Accessed January 2024
 - e. National Wetlands Inventory map(s); Accessed January 2024

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- f. Goggle Earth Aerials; December 2019, February 2022, April 2022, July 2022
 - g. FAA DWH ATCT Figure 06-2018 LiDAR Map Spring Harris Co., Texas Accessed LiDAR 13 January 2018
10. OTHER SUPPORTING INFORMATION. EPA Headquarters and Office of the Assistance Secretary (Civil Works) Memorandums on SWG-2023-00284, NAP-2023-01223, NWK-2022-00809, and NWK-2024-00392.
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: David Hull Federal Aviation Administration		File Number: SWG-2024-00252
Date: 01/15/2025		
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	C
X	APPROVED JURISDICTIONAL DETERMINATION	D
	PRELIMINARY JURISDICTIONAL DETERMINATION	E
<p>SECTION I - The following identifies your rights and options regarding an administrative appeal of the above decision. Additional information may be found at http://www.usace.army.mil/Missions/CivilWorks/RegulatoryProgramandPermits/appeals.aspx or Corps regulations at 33 CFR Part 331.</p>		
<p>A: INITIAL PROFFERED PERMIT: You may accept or object to the permit.</p> <ul style="list-style-type: none"> 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. Your objections must be received by the district engineer within 60 days of the date of this notice, or you will forfeit your right to appeal the permit in the future. 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. 		
<p>B: PROFFERED PERMIT: You may accept or appeal the permit</p> <ul style="list-style-type: none"> 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. 		
<p>C: 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.</p>		
<p>D: APPROVED JURISDICTIONAL DETERMINATION: You may accept or appeal the approved JD or provide new information.</p> <ul style="list-style-type: none"> 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. 		
<p>E: PRELIMINARY JURISDICTIONAL DETERMINATION: 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.</p>		

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. 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.

POINT OF CONTACT FOR QUESTIONS OR INFORMATION:

If you have questions regarding this decision and/or the appeal process you may contact:

Shawn Hillen, Regulatory Specialist
Regulatory Division, Compliance Branch (CESWG-RD-C)
U.S. Army Corps of Engineers, Galveston District
2000 Fort Point Road
Galveston, Texas 77550
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Email: Shawn.P.Hillen@usace.army.mil

If you only have questions regarding the appeal process you may also 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

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:

Telephone number: