

August 2023

Final

Environmental Assessment

Addressing the Proposed Land Purchase, and Construction, Operation, and Maintenance of a Joint Processing Center in Eagle Pass, Maverick County, Texas

Department of Homeland Security



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Abbreviations and Acronyms

| ACM | asbestos-containing material | FPPA | Farmland Protection Policy Act |
|-------------------|------------------------------------|-----------------|---|
| APE | Area of Potential Effect | FONSI | Finding of No |
| AST | aboveground storage | | Significant Impact |
| | tank | ft^2 | square foot/feet |
| bgs | below ground surface | GHG | greenhouse gas |
| BMP | best management | GMA | Groundwater |
| | practice | | Management Area |
| BPCKPT | Border Patrol | HTC | Historic Texas Cemetery |
| | Checkpoint | IF | isolated feature |
| CAA | Clean Air Act | IO | isolated occurrence |
| CBP | U.S. Customs and Border Protection | IPaC | Information for Planning and Consultation |
| CEQ | Council on | JPC | Joint Processing Center |
| | Environmental Quality | LBP | lead-based paint |
| CFR | Code of Federal Regulations | MBTA | Migratory Bird Treaty Act |
| CO | carbon monoxide | N/A | not applicable |
| CO_2 | carbon dioxide | NAAQS | National Ambient Air |
| CO ₂ e | CO ₂ equivalent | - | Quality Standards |
| CWA | Clean Water Act | NAGPRA | Native American Graves |
| dB | decibel | | Protection and |
| dBA | A-weighted decibel | | Repatriation Act |
| DHS | Department of Homeland Security | NEPA | National Environmental Policy Act |
| EA | Environmental | NHPA | National Historic |
| | Assessment | | Preservation Act |
| EIS | Environmental Impact Statement | NPDES | National Pollutant Discharge Elimination |
| EISA | Energy Independence | | System |
| | and Security Act | NOA | Notice of Availability |
| EJSCREEN | Environmental Justice | NO _X | nitrogen oxide |
| | Screening and Mapping Tool | NRCS | Natural Resources Conservation Service |
| EO | Executive Order | NRHP | National Register of |
| EPACT | Energy Policy Act | | Historic Places |
| ESA | Endangered Species Act | NWI | National Wetlands |
| °F | degrees Fahrenheit | | Inventory |
| FEMA | Federal Emergency | O ₃ | ozone |
| | Management Agency | OHWM | Ordinary High Water |
| FIRM | Flood Insurance Rate | O GIL I | Mark |
| | Map | OSHA | Health Administration |

| OTHM | Official Texas Historical Marker | TWDB | Texas Water Development Board |
|-------------------|--|--------|---|
| РАН | polycyclic aromatic hydrocarbon | TXDOT | Texas Department of Transportation |
| PCB | polychlorinated biphenyl | TXNDD | TPWD Natural Diversity |
| pCi/L | picocuries per liter | | Database |
| PCL | Protective Concentration Level | USACE | U.S. Army Corps of Engineers |
| PM _{2.5} | particulate matter | USBP | U.S. Border Patrol |
| | measured less than or | U.S.C. | United States Code |
| | equal to 2.5 microns in diameter | USEPA | U.S. Environmental Protection Agency |
| PM_{10} | particulate matter | USFWS | U.S. Fish and Wildlife |
| | measured less than or | | Service |
| | equal to 10 microns in | USRP | U.S. Refugee |
| | diameter | | Resettlement Program |
| PSD | Prevention of Significant | VOC | volatile organic |
| | Deterioration | | compound |
| ROI | region of influence | WOTUS | Waters of the United |
| RTHL | Recorded Texas Historic | | States |
| | Landmark | WTP | Water Treatment Plant |
| SHPO | State Historic | | |
| 0.01 | Preservation Officer | | |
| SOI | Secretary of the Interior | | |
| SOX | sulfur oxide | | |
| SPCC | Spill Prevention Control and Countermeasure | | |
| SSF | soft-sided processing facility | | |
| STP | shovel test pit | | |
| SWPPP | Stormwater Pollution | | |
| | Prevention Plan | | |
| SVOC | semi-volatile organic compound | | |
| TCEQ | Texas Commission on Environmental Quality | | |
| THC | Texas Historical | | |
| | Commission | | |
| THPO | Tribal Historic | | |
| | Preservation Officer | | |
| TPWD | Texas Parks and Wildlife Department | | |
| tpy | tons per year | | |
| | | | |

Cover Sheet

Final Environmental Assessment

Addressing the Proposed Land Purchase, and Construction, Operation, and Maintenance of a Joint Processing Center in Eagle Pass, Maverick County, Texas

Responsible Agencies: Department of Homeland Security (DHS)

Affected Location: Eagle Pass, Maverick County, Texas.

Report Designation: Final Environmental Assessment (EA).

Abstract: This EA was prepared to describe and assess the potential environmental, cultural, socioeconomic, and physical impacts of the Proposed Action and No Action Alternative. DHS proposes to purchase 62.76 acres of land and to construct, operate, and maintain a Joint Processing Center (JPC) to support humanitarian efforts along the southwestern United States/Mexico international border. The proposed JPC site (Project Area) is in the city of Eagle Pass, Texas. Approximately half of the land is currently leased by CBP for the temporary North Eagle Pass soft-sided processing facility. The JPC would have approximately 200,000 square feet of building space, would accommodate 200 support staff, and would have the capacity to process approximately 500 undocumented noncitizens per day. Ancillary support facilities and structures for the JPC would potentially include roadways, parking and delivery areas, a fuel island, stormwater ponds, sewage and trash system, emergency generators, helipad, communication tower, utilities, and tactical support areas. The Proposed Action is needed to relieve capacity within existing facilities and aid humanitarian efforts along the southwestern border by ensuring the security, placement, and successful transition of undocumented noncitizens (including migrants and refugees). The JPC would be a multi-agency facility and would be used by DHS, DHS Components, and potentially other federal agencies, as appropriate.

This EA analyzes and documents potential environmental consequences associated with the Proposed Action, Alternative(s), and No Action Alternative. The analysis presented in this EA allows decision makers to determine if the Proposed Action would have effects on the natural, cultural, social, economic, and physical environment, as well as whether the action can proceed to the next phase of project development or if an Environmental Impact Statement (EIS) is required.

The Final EA will be posted on the DHS EA website at *www.dhs.gov/nepa*.

Privacy Advisory

This EA was prepared according to the National Environmental Policy Act of 1969 (42 United States Code [U.S.C.] 4321 et seq.); the Council on Environmental Quality (CEQ), Regulations Implementing the Procedural Provisions of NEPA (40 CFR §§1500-1508); DHS Directive 023-01 Revision 01, Implementation of the National Environmental Policy Act; and other pertinent environmental statutes, regulations, and compliance requirements. We are no longer seeking comments on this document. No substantive comments were received during the 30 day public comment period. Any personal information provided was used only to fulfill requests for copies of the EA or associated documents. Private addresses were compiled to develop a mailing list for those requesting copies of the EA. However, personal home addresses and telephone numbers are not included in the EA.

Final

ENVIRONMENTAL ASSESSMENT Addressing the Proposed Land purchase, and Construction, Operation, and Maintenance of a Joint Processing Center in Eagle Pass, Maverick County, Texas

DEPARTMENT OF HOMELAND SECURITY

2707 Martin Luther King Jr Avenue SE Washington, DC 20528

AUGUST 2023

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EXECUTIVE SUMMARY

INTRODUCTION

The Department of Homeland Security (DHS) proposes to purchase 62.76 acres of land in Eagle Pass, Maverick County, Texas, and to construct, operate, and maintain a permanent, multiagency facility to support humanitarian efforts along the southwestern border. The new Joint Processing Center (JPC) would have a larger capacity than existing facilities and would ensure the security, placement, and successful transition of undocumented noncitizens, including migrants and refugees, by DHS. An undocumented individual is a noncitizen who does not possess a document valid for admission into the United States. Undocumented individuals may or may not possess a passport or other acceptable document that denotes identity and citizenship when entering the United States. Under the Proposed Action, the JPC would be used by DHS, DHS Components, and other applicable Federal agencies.

The proposed 62.76-acre site (Project Area) includes 25.70 acres of land currently leased by U.S. Customs and Border Protection (CBP) for the North Eagle Pass soft-sided processing facility (SSF). These SSFs are temporary and comprised of portable tents that support DHS and CBP efforts to process, care for, and transfer undocumented noncitizens. The entire Project Area would be purchased for the Proposed Action to construct, operate, and maintain the JPC. The existing SSF structures would remain until no longer needed and the SSF pad area would remain unless replaced by other uses.

DHS prepared this Environmental Assessment (EA) through coordination with federal, state, and local agencies as well as with Indian Tribes and the public. This coordination was used to identify and assess the potential impacts associated with purchasing the land and constructing, operating, and maintaining the JPC. This EA was prepared to fulfill the requirements of the National Environmental Policy Act (NEPA) of 1969.

PURPOSE AND NEED

The purpose of the Proposed Action is to purchase land to construct, operate, and maintain a JPC to relieve overcrowding in existing DHS facilities. The Proposed Action would support humanitarian efforts along the southwestern border and ensure the security, placement, and successful transition of undocumented noncitizens.

The Proposed Action is needed to efficiently process migrants and ease overcrowding at existing, temporary SSFs not sustainable for continued use. The SSFs have limited capacity, are costly, smaller than the proposed JPC, and inadequately equipped for the increasing number of undocumented noncitizens entering the country. Current SSFs are overcrowded and the health and safety of DHS personnel, contractors, and those being processed is being affected. The overcrowding affects work efficiency, morale, and impedes execution of missions and operations during processing. The Proposed Action would allow multiple agencies to offer services and operate at the same building location and would allow better processing efficiency and reduced transportation costs. The JPC would be located in one of the highest areas of undocumented noncitizen apprehension encounter rates along the southwestern border.

PUBLIC INVOLVEMENT

As part of the NEPA process, DHS initiated public scoping for the Proposed Action by providing a 30-day review period from February 23, 2023 to March 25, 2023. A letter was distributed to 30 potentially interested federal, state, and local agencies; Indian Tribes; and other stakeholder groups or individuals. All scoping comments received were considered during preparation of the Draft EA.

DHS notified relevant federal, state, and local agencies; appropriate Indian Tribes and nations; and the public of the Draft EA and requested input regarding any environmental concerns they might have. As part of the NEPA process, DHS coordinated with federal, state, and local agencies and with appropriate Indian Tribes and nations.

The Notice of Availability (NOA) for the Draft EA, and the Draft EA and Finding of No Significant Impact (FONSI), were published on the DHS website and made available for review and comment. The 30-day public comment period was used to receive comments from the public, federal, state, and local agencies, and federally recognized Indian Tribes. The start of the review period was announced by the NOA published (in English and in Spanish) on the DHS website (https://www.dhs.gov/nepa). The NOA was also printed in newspapers of record in Eagle Pass, Maverick County, Texas including the *Del Rio & Eagle Pass News Leader* and *San Antonio Express-News*. The NOA for the Draft EA briefly described the Proposed Action, the NEPA process, how to view the EA, and how to submit comments to, or request additional information from, DHS. The public comment and review period was provided to solicit comments on the Proposed Action, Alternative(s), and No Action Alternative, and to involve the public in the decision-making process. The public comment period was from June 15, 2023 to July 18, 2023. Hard copies of the Draft EA were made available at Eagle Pass Public Library and Quemado Public Library. The Draft EA and FONSI were made available for download from the DHS web page at https://www.dhs.gov/nepa.

A substantive comment is one that is within the scope of the Proposed Action (and its alternatives), is specific to the Proposed Action, has a direct relationship to the Proposed Action, and includes supporting reasons for the Agency to consider. There were two (2) comments received; however, they were outside of the scope and therefore not relevant to the Proposed Action. No substantive comments were received during this period.

DESCRIPTION OF THE PROPOSED ACTION

Proposed Action. The Proposed Action would include the purchase of 62.76 acres of land from Maverick County and constructing, operating, and maintaining a JPC. Of those 62.76 acres, 25.70 acres are currently leased by CBP and serve as the North Eagle Pass SSF at 223 Fire Fly Lane, Eagle Pass, Texas. Upon purchasing the 62.76 acres of land, the lease for the SSF would be discontinued. The JPC would have approximately 200,000 square feet (ft²) of useable floor space, would accommodate 200 support staff, and would have the capacity to process approximately 500 undocumented noncitizens per day. The purchase of land would be suitable for all reasonably foreseeable JPC growth. The JPC would also include the following potential ancillary support facilities and structures:

- Vehicle storage and maintenance facility including vehicle wash rack(s)
- Loading facilities such as service and delivery docks
- Outdoor tactical support areas
- Public and private vehicle parking areas as well as overflow parking
- Fuel island with above-ground storage tanks and secondary containment system
- K9 kennels
- Communications tower
- Stormwater management system and stormwater detention ponds
- Helipad
- Roadways
- Emergency generators
- Utilities
- On-site sewage treatment (vermafiltration or septic fields)
- Trash disposal
- Fire-safe dispersal areas
- Chillers and mechanical room
- Outdoor tactical support areas

A preliminary conceptual site layout of the proposed JPC is depicted in **Appendix B**. Upon site design, the actual layout of the JPC could be different from that shown in **Appendix B** and would include all facilities approved during the final design stages. Construction of the JPC would disturb about 62.76 acres. Within those 62.76 acres, 25.70 acres consists of the existing SSF and 37.06 acres are currently undeveloped. Most of the land would be permanently impacted by the construction of the JPC and ancillary facilities. The communications tower would be 140 feet tall direct embedded with no guy wires.

The Proposed Action also includes demolition of temporary facilities after completion of the JPC, subject to the availability of funds. The JPC would be operated and staffed 24 hours a day, 7 days a week. Maintenance of the JPC would include routine upgrade, repair, and maintenance of the buildings, roofs, parking areas, grounds, or other facilities that would not result in a change in their function or use. Some examples maintenance activities include landscaping, mowing, janitorial cleaning, trash removal, fencing repairs, replacing door locks or windows, painting interior or exterior walls, resurfacing a road or parking lot, grounds maintenance, or replacing essential facility components such as an air conditioning unit. Vehicle maintenance and washing would occur in a vehicle maintenance garage or appropriate area.

No Action Alternative. As required by NEPA and CEQ regulations, the No Action Alternative reflects conditions within the Project Area should the Proposed Action not be implemented. Under the No Action Alternative, DHS personnel would continue to use the existing temporary SSFs and the North Eagle Pass SSF. The use of these SSFs would not facilitate inter-agency coordination. Additionally, the existing SSFs would remain undersized and would not be able to be expanded or renovated to meet demand. The existing SSFs would continue to be undersized and inadequately equipped for the increasing number of undocumented noncitizens crossing the border. The facilities would be overcrowded and the health and safety of DHS personnel, contractors, and those being processed would be affected. In addition, the overcrowding would

continue to affect work efficiency, morale, and impede the execution of the missions and operations.

SUMMARY OF ENVIRONMENTAL IMPACTS

Table ES-1 provides a summary of potential impacts anticipated under the Proposed Alternative and No Action Alternative. The impacts are shown by resource area. **Section 3** of this EA addresses these impacts in more detail. The Proposed Action has the potential to result in adverse environmental impacts and, as such, includes best management practices (BMPs) and design concepts identified in **Appendix D** of this EA to avoid adverse impacts to the extent practicable. DHS commits to adopting these BMPs as referenced, to avoid or minimize adverse impacts to the greatest extent practicable.

| Resource Area | Alternative 1: Proposed Action | Alternative 2: No |
|---|---|-------------------|
| Land Use | Long-term, minor adverse impacts on land use from 100 percent development of the site. Development is consistent with current use of adjacent land. Viability of adjacent land use not affected. No known conflicts with objectives of federal, state, regional, or local land use plans, policies, or controls. Approximately 35.6 acres designated as NRCS farmland – however, it cannot be used as such without irrigation. | No impacts |
| Geology and Soils | Short- and long-term, minor, negligible adverse impacts on topography from earthmoving and grading activities during construction. Short-term, minor, adverse impacts on soils from temporary disturbance of ground surfaces, earthmoving activities, and grading within the Project Area during construction. Minor adverse impacts on 35.6 acres of potential important farmland soils due to compaction during construction. Long-term, minor, negligible, adverse impacts from geological hazards. No impacts on regional geology. | No impacts |
| Biological Resources (Vegetation) | Short- and long-term, negligible to minor, direct adverse impacts on vegetation. No impacts on special status vegetation. Disturbance of 37 acres of undeveloped land with vegetation characterized as Chihuahuan desert scrub (26 acres is within the footprint of the existing facility and is already disturbed). Increased potential for invasive species spread/fire regime, accidental spills and increased fugitive dust emissions may impact vegetation. BMPs would be implemented to reduce or avoid impacts. | No impacts |
| Biological Resources (Terrestrial and Aquatic Wildlife) | Short-term, direct and indirect, negligible to minor, adverse effects on wildlife. Potential impacts on wildlife include habitat removal, construction-related ground disturbance, and noise. Approximately 37 acres of native habitat within the Project Area would be impacted. Mobile wildlife would likely relocate to other nearby suitable habitat and avoid the Project Area once | No impacts |

Table ES-1. Summary of Potential Environmental Impacts by Alternative

| Resource Area | Alternative 1: Proposed Action | Alternative 2: No Action Alternative |
|---|--|---|
| | construction activities commence. Impacts on wildlife due to noise during construction should be short-term in nature and negligible as there is sufficient habitat for wildlife relocate to away from construction noise. Impacts on migratory bird species would be avoided by conducting pre-construction surveys and avoiding construction at nesting locations until nesting activities are complete. BMPs listed in Appendix D would minimize or avoid impacts on wildlife. | |
| Biological Resources (Special Status Species) | No impacts on federally threatened and endangered species are anticipated due to lack of suitable habitat. Minor impacts on existing nectar plants, potential foraging habitat for the candidate species monarch butterfly (<i>Danaus plexippus</i>) may occur; these impacts would be mitigated by planting native milkweed and other nectar plants in post-construction landscaping. Habitat removal, construction-related ground disturbance, and noise may cause minor impacts on seven state and special-status species (these seven species include the American black bear (<i>Ursus americanus</i>), Texas horned lizard (<i>Phrynosoma cornutum</i>), Texas tortoise (<i>Gopherus berlandieri</i>), Reticulate collared lizard (<i>Crotaphytus reticulatus</i>), Tamaulipan spot tailed earless lizard (<i>Holbrookia subcaudalis</i>), and Texas indigo snake (<i>Drymarchon melanurus erebennus</i>)). Species-specific BMPs listed in Appendix D have been incorporated into the Proposed Action to avoid or minimize impacts. | No impacts |
| Water Resources (Groundwater) | Short- and long-term, negligible, adverse impacts on groundwater quality from construction-related erosion and increased sediment transportation that could enter groundwater through recharge points. No impacts on groundwater quantity are expected. Compliance with design measures, BMPs, and permitting requirements would be implemented to reduce or eliminate impacts. | No impacts. |
| Water Resources (Surface Waters and Wetlands) | Short- and long-term, minor, adverse impacts on surface waters during construction and maintenance from the potential for unmanaged stormwater flows and erosion. Unmanaged stormwater flow could impact the Rio Grande and other downstream surface waters. Erosion-control BMPs and stormwater management system would avoid or minimize adverse impacts. Minor impacts to domestic water supply (surface water supply) would occur. Domestic water use is estimated at 6.4 million gallons per year and is less than 0.0001 percent of the existing annual water supply provided by the Rio Grande. Only one potentially jurisdictional Waters of the U.S. (WOTUS) feature exists in the Project Area; a 50-foot-long drainage ditch is located outside the existing SSF that flows toward | No impacts |

| Resource Area | Alternative 1: Proposed Action | Alternative 2: No Action Alternative |
|-------------------------------------|---|---|
| | the Maverick County Water Treatment Plant. No construction would occur in the immediate area. No impacts on wetlands or WOTUS features are expected. | |
| Water Resources (Floodplains) | Negligible to minimal impacts, due to increased impervious surfaces and stormwater discharge into nearby floodplains, some of which are located less than a mile away. | No impacts |
| Air Quality | Short- and long-term, minor, adverse impacts on air quality from use of equipment, infrastructure, and vehicles during both construction and operation. Helicopter flights using the proposed helipad would be infrequent and are estimated at 1 flight per week (52 flights per year). Emissions produced from transient helicopter operations have the potential to affect air quality up to 3,000 feet above ground level (or the mixing zone). Considering the infrequency of helicopter operations at the JPC, emissions from such operations would have negligible impacts on air quality. Impacts on air quality from release of criteria pollutants are determined to be negligible to minor, as they would not exceed the USEPA's Prevention of Significant Deterioration major source threshold of 250 tons per year (tpy) (25 tpy for lead). Fugitive dust emissions as a result of construction would peak during the 2025 year at 79 tons of particulate matter measured less than or equal to 10 microns in diameter. Greenhouse gas (GHG) emissions measured as CO ₂ equivalent (CO _{2e}) would total of 3,767 tons (3,417 metric tons) during the construction period (i.e., 2024 through 2029). BMPs and environmental control measures would minimize fugitive dust emissions and the release of GHGs. | No impacts |
| Noise | Short- and long-term, minor, adverse effects on the ambient noise environment from construction, operation (including intermittent helicopter use), and maintenance. Residences approximately 100 feet southwest of boundary would be impacted by noise during construction and temporary and intermittent noise during operation and maintenance. Construction would generally occur between 250 and 1,000 feet from the adjacent residences, minimizing noise exposure during construction. Use of the proposed helipad would be infrequent, and no helicopter would be stationed at the JPC. BMPs would be implemented to limit exposure on sensitive noise receptors. | No impacts |

| Resource Area | Alternative 1: Proposed Action | Alternative 2: No Action Alternative |
|--------------------------------------|---|---|
| Cultural Resources | Potential adverse impacts on unknown archaeological resources due to ground-disturbing activities. No known archaeological sites are present, and no impacts are anticipated for these resources. With implementation of BMPs, including DHS's established standard operating procedures for inadvertent discoveries, impacts on unknown cultural resources would be avoided. There would be no impacts on cultural resources from operation and maintenance of the JPC. The State Historic Preservation Officer concurred with the finding of 'No Historic Properties Affected' for the Proposed Action. | No impacts |
| Utilities and Infrastructure | Short- and long-term, negligible to minor, adverse impacts on electrical supply, natural gas/propane supply, water supply, wastewater systems, stormwater drainage, communications, and solid waste management. Construction would generate approximately 434 tons of solid waste and temporarily disturb natural stormwater drainage. Operations would result in minor increase in electrical load, natural gas/propane supply, domestic water demand, solid waste generation, and minor reduction in communications bandwidth over current operations. A domestic well would be established for water supply, and an on-site wastewater treatment system would be installed. BMPs would minimize or avoid impacts, where possible. | No impacts |
| Roadways and Traffic | Short- and long-term, minor, adverse impacts from increases in daily and peak hour traffic levels to support construction and operations. An additional 200 staff would be traveling to and from to work at the JPC; the JPC would have the capacity to process up to 500 undocumented noncitizens per day. Changes in traffic levels associated with the JPC would not be expected to exceed current capacity. | No impacts. |
| Hazardous Materials and Wastes | Short-term, minor, and long-term, negligible, adverse impacts from the storage and use of larger quantities of hazardous materials and petroleum products during operations, and the generation of hazardous wastes during construction. No impacts from special hazards (asbestos- containing material, lead-based paint, and polychlorinated biphenyls), environmental contamination, and radon. The presence of a historical skeet range was investigated. Contamination was delineated to an area of approximately 4 acres. This area would be capped, use restricted, and/or the soil properly removed and disposed of to meet or exceed recommended residential soil protective concentrations levels. BMPs would be implemented to reduce or avoid impacts. | No impacts |

| Resource Area | Alternative 1: Proposed Action | Alternative 2: No |
|---|--|--|
| | | Action Alternative |
| Socioeconomic Resources, Environmental Justice, and Protection of Children | Short-term, minor, and long-term, negligible, beneficial impacts on the local economy and employment from construction expenditures and additional personnel. No changes to population or demographics as construction and operations workforce would likely be supplied from within Maverick County. Long-term, indirect, minor, adverse impacts on fire protection and emergency medical services. Minor impacts from increased noise and traffic during construction and operation. No disproportionately high and adverse human health and environmental impacts on minority and low-income populations or children. | No impacts |
| Human Health and Safety | Short-term, negligible, adverse impacts on contractor safety from increased risk of accidents, but no impacts on the general public during construction. Impacts on health and safety from operation of the JPC could be long-term, minor, and beneficial. | Long-term, minor, adverse impacts on personnel and public safety from continued use of the existing, inadequate SSFs/tents and facilities. |
| Sustainability and Greening | Long-term, minor, beneficial impacts through implementation of sustainable design strategies to reduce consumption of energy, water, and raw materials, while meeting mission requirements. Long-term, minor, adverse impacts from disturbance of green and open spaces. | Long-term, minor to moderate, adverse impacts on resource sustainability from continued operation of existing SSF. No impacts on green and open spaces. |

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1 INTRODUCTION

The Department of Homeland Security (DHS) proposes to purchase 62.76 acres of land near Eagle Pass, Texas, and to construct, operate, and maintain a Joint Processing Center (JPC) that would be a permanent, multi-agency facility. The construction of a modern, high-capacity processing facility would support humanitarian efforts along the southwestern border. The existing soft-sided processing facilities (SSFs) are costly, undersized, and inadequately equipped for the increasing undocumented noncitizens entering the country. An undocumented individual is a noncitizen who does not possess a document valid for admission into the United States. Undocumented individuals may or may not possess a passport or other acceptable document that denotes identity and citizenship when entering the United States. Current facilities are overcrowded and the health and safety of DHS personnel, contractors, and those being processed is affected. In addition, the overcrowding affects work efficiency, morale, and impedes the execution of missions and operations during processing. The JPC would be used by DHS, DHS Components, and other applicable federal agencies.

The proposed site for the JPC consists of 62.76 acres (the Project Area) owned by Maverick County and includes 25.70 acres of land currently leased by U.S. Customs and Border Protection (CBP) for the North Eagle Pass SSF and 37.06 acres of undeveloped land. SSFs are temporary processing facilities comprised of portable tents that support CBP efforts to process, care for, and transfer undocumented noncitizens. The entire Project Area would be purchased for the Proposed Action and most of it would be used for the JPC and/or existing SSF operations. The lease for the current SSF would be discontinued and when the SSF is removed, the pad site would remain for the possibility of future use.

This Environmental Assessment (EA) was prepared to describe and assess the potential environmental and socioeconomic impacts of the Proposed Action, Alternatives, and the No Action Alternative, and to aid in determining whether an Environmental Impact Statement (EIS) is required. This EA complies with the National Environmental Policy Act (NEPA) of 1969, as amended (42 United States Code [U.S.C.] Section 4321–4347); the Council on Environmental Quality's (CEQ) *Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act* (40 Code of Federal Regulations [CFR] Parts 1500–1508); and DHS Directive 023-01, Rev. 01, and Instruction Manual 023-01-001-01, Rev. 01, *Implementation of the National Environmental Policy Act* (NEPA).

DHS has prepared this EA to assess the environmental impacts that would likely occur as a result of the Proposed Action. DHS has developed and incorporated measures into this EA that would appropriately and reasonably avoid, minimize, or mitigate environmental impacts associated with the project activities. This EA is organized into six sections plus appendices. Section 1 provides background information on the existing processing facilities and SSFs, identifies the purpose and need of the Proposed Action, describes the Project Area in which the Proposed Action would occur, and explains the public involvement process. Section 2 provides a detailed description of the Proposed Action, Alternatives, and the No Action Alternative. Section 3 describes existing environmental impacts that could occur within each resource area. Section 4 contains an analysis of the cumulative and other impacts that the Proposed Action combined with other projects in the area may have on the environment. Sections 5 and 6 provide a list of references

used to develop the EA, and a list of preparers who developed the EA, respectively. Finally, the appendices include other information pertinent to the development of the EA.

1.1 BACKGROUND

The six enduring missions of DHS are to:

- counter terrorism and prevent threats,
- secure and manage our borders,
- administer the nation's immigration system,
- secure cyberspace and critical infrastructure,
- build a resilient nation and respond to incidents, and
- combat crimes of exploitation and protect victims.

As part of this mission, DHS and other DHS components work together to uphold America's humanitarian response to undocumented noncitizens, including migrants, and refugees, through the U.S. Refugee Resettlement Program (USRP). The USRP has three main objectives: security, placement, and transition. DHS also provides security through pre-screening, on-site interviews, security clearances, and fingerprinting.

1.2 LOCATION

The Proposed Action is approximately 11 miles northwest of the city of Eagle Pass in Maverick County, Texas (see **Figure 1-1**). The address for the Proposed Action is 223 Fire Fly Lane, Eagle Pass, Texas, and the property is located on the southern side of State Highway 131 and northeastern side of U.S. Highway 277. The U.S. Topographic Map is Quemado SE, Texas. As mentioned previously, 25.70 acres of the Project Area is currently leased by CBP for the North Eagle Pass SSF (see **Figure 1-2**) while the other 37.06 acres are currently undeveloped and owned by Maverick County.



Figure 1-1 General Location Map



Figure 1-2 Location of Proposed Eagle Pass JPC and Project Area

1.3 PURPOSE OF AND NEED FOR THE PROPOSED ACTION

The purpose of the Proposed Action is to purchase land and to construct, operate, and maintain a JPC to relieve overcrowding in existing DHS facilities. The Proposed Action would support humanitarian efforts along the southwestern border and ensure the security, placement, and successful transition of undocumented noncitizens (including migrants and refugees).

The Proposed Action is needed to efficiently process migrants and ease overcrowding at existing SSFs. SSFs are temporary processing facilities comprised of portable tents that support CBP efforts to process, care for, and transfer undocumented noncitizens. The SSFs have limited capacity, are costly, smaller than the proposed JPC, and inadequately equipped for the increasing number of undocumented noncitizens entering the country. The temporary structures are not sustainable for continued or long-term use. Current SSFs are overcrowded and the health and safety of DHS personnel, contractors, and those being processed is being affected. The overcrowding affects work efficiency, morale, and impedes execution of missions and operations during processing.

The Proposed Action would allow multiple agencies to offer services and operate at the same building location and would allow better processing efficiency and reduced transportation costs. The JPC would be in one of the highest areas of apprehension undocumented noncitizens encounter rates along the southwestern border.

1.4 PUBLIC INVOLVEMENT

Public participation opportunities during this NEPA process are guided by DHS NEPA implementing procedures, the requirements of NEPA (40 CFR § 1506.6), and the CEQ regulations. Agency and public involvement in the NEPA process promotes open communication between the public and the Government and enhances the decision-making process. The NEPA process encourages public involvement in decisions affecting the quality of the human environment and includes the identification and evaluation of reasonable alternatives to the proposed actions that would avoid or minimize adverse environmental impacts. In addition to public participation, interagency and intergovernmental coordination is a federally mandated process for informing and coordinating with other governmental agencies regarding federal Proposed Actions. This coordination also fulfills requirements under Executive Order (EO) 12372, *Intergovernmental Review of Federal Programs* (superseded by EO 12416 and subsequently supplemented by EO 13132), which requires federal agencies to cooperate with and consider state and local views in implementing a federal proposal.

Additionally, EO 13175, *Consultation and Coordination with Indian Tribal Governments* (2000), requires federal agencies to invite federally recognized Indian Tribes to participate in the NEPA and National Historic Preservation Act (NHPA) of 1966 Section 106 processes as Sovereign Nations based on their potential ancestral ties to the Project Area.

In addition to the public, DHS identified stakeholders with interest in this Proposed Action including federal, state, and local agencies, as well as federally recognized Indian Tribes. Through the NEPA process, the public and stakeholders were presented the opportunity to provide relevant information, express their concerns, and provide their inputs. A list of agencies and individuals coordinated with during preparation of this EA is included in **Appendix**

A with copies of relevant correspondence. The record of consultation with federally recognized Indian Tribes is included as **Appendix A**. DHS coordinated with agencies such as the U.S. Fish and Wildlife Service (USFWS), U.S. Army Corps of Engineers (USACE), local agencies, and appropriate Indian Tribes and nations.

A Notice of Availability (NOA) for the Draft EA, and the Draft EA including the Draft Finding of No Significant Impact (FONSI) were published on the DHS website and made available for a 30-day period to receive comments from the public; federal, state, and local agencies; and federally recognized Indian Tribes. The start of the review period was announced by the NOA, which was published in English and Spanish on the DHS website (https://www.dhs.gov/nepa) and and in newspapers of record in Eagle Pass, Maverick County, Texas, including the *Del Rio & Eagle Pass News Leader* and *San Antonio Express-News*.

The NOA for the Draft EA briefly described the Proposed Action, the NEPA process, how to view the EA, and how to submit comments to, or request additional information from DHS. The public comment and review period was provided to solicit comments on the Proposed Action, Alternative(s), and No Action Alternative, and to involve the public in the decision-making process. The public comment period was from June 15, 2023 to July 18, 2023. Hard copies of the Draft EA and FONSI were made available at Eagle Pass Public Library and Quemado Public Library. The Draft EA and FONSI were made available for download from the DHS web page at https://www.dhs.gov/nepa.

A substantive comment is one that is within the scope of the Proposed Action (and its alternatives), is specific to the Proposed Action, has a direct relationship to the Proposed Action, and includes supporting reasons for the Agency to consider. There were two (2) comments received; however, they were outside of the scope and therefore not relevant to the Proposed Action. No substantive comments were received during this period.

1.5 FRAMEWORK FOR ANALYSIS

NEPA is a federal statute requiring the identification and analysis of potential environmental impacts of proposed federal actions before those actions are taken. CEQ is the principal Federal agency responsible for the administration of NEPA. CEQ regulations mandate that all Federal agencies use a systematic, interdisciplinary approach to environmental planning and the evaluation of actions that might affect the environment. This process evaluates potential environmental consequences associated with a Proposed Action and considers alternative courses of action. The intent of NEPA is to protect, restore, or enhance the environment through well-informed federal decisions.

The process for implementing NEPA is codified in 40 CFR Parts 1500–1508, *Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act.* CEQ was established under NEPA to implement and oversee federal policy in this process. CEQ regulations specify that an EA may be prepared for the following reasons:

- Briefly provide evidence and analysis for determining whether to prepare a FONSI or an EIS.
- Aid in an agency's compliance with NEPA when an EIS is unnecessary.
- Facilitate preparation of an EIS when one is necessary.

Within DHS and CBP, NEPA is implemented using DHS Directive 023-01, Rev 01 (2014) and the DHS Instruction Manual 023-01-001-01, Rev 01, *Implementation of the National Environmental Policy Act (NEPA)* (2014).

To comply with NEPA, the planning and decision-making process for actions proposed by federal agencies involves a study of other relevant environmental statutes and regulations. However, the NEPA process does not replace procedural or substantive requirements of other environmental statutes and regulations. It addresses them collectively in the form of an EA or EIS, which enables the decision maker to have a comprehensive view of major environmental issues and requirements associated with the Proposed Action. According to CEQ regulations, the requirements of NEPA must be integrated "with other planning and environmental review procedures required by law or by agency so that all such procedures run concurrently rather than consecutively."

Within the framework of environmental impact analysis under NEPA, additional authorities that might be applicable include, but are not limited to, the Clean Air Act (CAA), Clean Water Act (CWA) (including a National Pollutant Discharge Elimination System [NPDES] storm water discharge permit and Section 404 permit), Noise Control Act, Endangered Species Act (ESA), Migratory Bird Treaty Act (MBTA), NHPA, Archaeological Resources Protection Act, Resource Conservation and Recovery Act, Toxic Substances Control Act, Bald and Golden Eagle Protection Act, Coastal Zone Management Act, Protection and Enhancement of the Cultural Environment, and various EOs including: EO 11988, *Floodplain Management*; EO 11990, *Protection of Wetlands*; EO 12088, *Federal Compliance with Pollution Control Standards*; EO 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*; EO 13112, *Invasive Species*; and EO 13834, *Efficient Federal Operations*.

Table 1-1 lists major federal and state permits, approvals, and interagency coordination that could be required to construct, operate, and maintain the JPC.

| Agency | Permit/Approval/Coordination |
|----------------------|--|
| USACE | CWA Section 404 permit |
| USFWS | - Section 7 ESA coordination/consultation |
| | – MBTA coordination |
| | Bald and Golden Eagle Protection Act |
| | - Fish and Wildlife Coordination Act (16 U.S.C. § |
| | 661 et seq.) |
| Federal Aviation | Federal Aviation Administration (FAA) Form 7480-1 |
| Administration | |
| Federally Recognized | - Consultation regarding potential effects on cultural |
| Indian Tribes and | resources and Traditional Cultural Property |
| Nations | - Consultation for Section 106 potential effects on |
| | historical resources |
| Texas State Historic | Consultation for Section 106 potential effects on |
| Preservation Officer | historical resources |

| Tab | le 1 | -1 | Kev | Perm | its and | Approv | als (a | s applica | able) and | d Interagei | ncy (| Coordination |
|-----|------|----|-----|------|---------|--------|--------|-----------|-----------|-------------|-------|--------------|
| | | | • | | | 11 | • | 11 | , | | • | |

| Agency | Permit/Approval/Coordination | | | | |
|---------------------|--|--|--|--|--|
| Texas Parks & | Consultation regarding potential effects on state | | | | |
| Wildlife | listed species | | | | |
| Texas Commission | CWA Section 401 State Water Quality Certification | | | | |
| on Environmental | CWA NPDES permit | | | | |
| Quality | - Domestic Water Supply Permit (for applicable | | | | |
| | non-transient, non-community water system) | | | | |
| | Permit to Operate (for emergency generators) | | | | |
| | CAA permit consultation | | | | |
| | – Water well permit | | | | |
| | - On-site Wastewater Treatment System permit (for | | | | |
| | septic system and leach field) | | | | |
| | Permit to Operate (for emergency generators) | | | | |
| | CAA permit consultation | | | | |
| Texas Department of | State Heliport Permit | | | | |
| Transportation | | | | | |

2 PROPOSED ACTION AND ALTERNATIVES

2.1 INTRODUCTION

This section provides detailed information on DHS's proposal to purchase land necessary to construct, operate, and maintain a JPC near Eagle Pass, Maverick County, Texas. As discussed in **Section 1.5**, the NEPA process evaluates potential environmental consequences associated with a Proposed Action and considers alternative courses of action.

Reasonable alternatives must satisfy the purpose and need for a Proposed Action (see Section 1.3). The purpose of the Proposed Action is to purchase land to construct, operate, and maintain a JPC and to relieve overcrowding at existing DHS facilities. The Proposed Action would support humanitarian efforts along the southwestern border and would ensure the security, placement, and successful transition of undocumented noncitizens. The Proposed Action is needed to efficiently process undocumented noncitizens as existing processing centers are costly and inadequately sized and equipped for the increasing number of undocumented noncitizens.

In accordance with NEPA and CEQ guidance, DHS evaluated alternatives to the Proposed Action to determine whether they would be reasonable and environmentally preferable to the Proposed Action. These alternatives include the 13.27-Acre JPC Location Alternative and the No Action Alternative. The 13.27-Acre JPC Location Alternative was eliminated from further detailed analysis as discussed in **Section 2.5.** The No Action Alternative would not satisfy the purpose and need for the Proposed Action but is analyzed in detail as recommended by CEQ regulation.

2.2 SCREENING CRITERIA FOR ALTERNATIVES

The range of reasonable alternatives considered in this EA is constrained to those that would meet the purpose and need for the Proposed Action as described in **Section 1.3**, which is to expand the capacity of the temporary SSF with a fully functional, inter-agency JPC. Such alternatives must also meet essential technical, engineering, and economic threshold requirements to ensure that each alternative is environmentally sound and economically viable and complies with governing standards and regulations.

DHS developed and applied selection criteria during early phases of planning to assist in determining suitable locations consistent with the project purpose and need described in **Section 1.3** for the construction of a JPC. The site-selection criteria applied are as follows:

- *Adequate Size.* The purchased parcel should be at least 38 acres to provide for the initial and expected future programmed functions, to allow for expansion of parking, and to allow for necessary buffer zones for special initiatives and for future facility expansion.
- **Proper Location.** The JPC should be located and situated in such a way as to not compromise the security and safety of the facility, personnel, and individuals. A proper location would ensure full coverage of an area of responsibility, it would allow appropriate amenities for the community (families and contract employees), and it would ensure the JPC is in close proximity (less than 30 minutes of driving) to major

infrastructure and support, such as major highways, airports, and other U.S. Border Patrol (USBP) facilities.

- *Ease of Access.* The JPC should have ease of access, which includes access from more than one entry point for emergency egress purposes, good access for emergency response services, proximity to highways, and would not be located on or near heavily congested roadways or other obstructions.
- *Acquisition Likelihood.* The JPC should be sited on property that could be purchased in a timely and cost-effective manner.
- *Minimize Potential Negative Environmental Impacts.* The JPC should not have any obvious detrimental cultural or environmental impacts that could not be mitigated.
- Utilities. The JPC should have access to public utilities.

Section 2.3 presents the Proposed Action, Section 2.4 presents the No Action Alternative, and Section 2.5 presents the alternatives considered but eliminated from further detailed analysis.

2.3 PROPOSED ACTION

The Proposed Action includes the purchase of 62.76 acres of land from Maverick County to construct, operate, and maintain a JPC at 223 Fire Fly Lane, Eagle Pass, Texas. Of the 62.76 acres, 25.70 acres are currently leased by CBP for the North Eagle Pass SSF, and 37.06 acres are undeveloped. Upon purchasing the Project Area, the lease for the SSF would be discontinued. The SSF structures would remain until no longer needed, after which the SSF pad site would remain for future use. The JPC building would have approximately 200,000 square feet (ft²) of useable floor space, would accommodate 200 support staff, and would have the capacity for processing approximately 500 undocumented noncitizens per day. The remaining property would allow for ancillary support facilities and structures as well as for reasonably foreseeable growth.

The JPC would also include the following ancillary support facilities and structures:

- vehicle storage and maintenance facility including a vehicle wash rack,
- loading facilities such as service and delivery docks,
- outdoor tactical support areas,
- public and private vehicle parking areas as well as overflow parking,
- fuel island with aboveground storage tanks (ASTs) and secondary containment system,
- K9 kennels,
- communications tower,
- stormwater management system and stormwater detention ponds,
- helipad,
- roadways,
- emergency generators,

- utilities,
- on-site sewage treatment (vermifiltration system or septic fields),
- trash disposal,
- fire-safe dispersal areas,
- chillers and mechanical room, and
- outdoor tactical support areas.

A preliminary conceptual site layout of the proposed JPC is presented in **Appendix B**. Upon completion of the site design, the actual layout of the JPC could be different from that shown in **Appendix B** and would include all facilities approved during the final design stages. It is anticipated that the Proposed Action would disturb most of the 62.76 acres of which 25.70 acres is occupied by the SSF. Thus, an additional 31.5 acres (beyond that occupied by the SSF) would be permanently impacted by the JPC and ancillary facilities. The communications tower would be 140 feet tall direct embedded with no guy wires.

The Proposed Action also includes demolition of temporary facilities after completion of the JPC, subject to the availability of funds. The JPC would be operated and staffed 24 hours per day, 7 days a week. Maintenance of the JPC would include routine upgrade, repair, and maintenance of the buildings, roofs, parking areas, grounds, or other facilities that would not result in a change in their function or use. Some examples maintenance activities include landscaping, mowing, janitorial cleaning, trash removal, fencing repairs, replacing door locks or windows, painting interior or exterior walls, resurfacing a road or parking lot, grounds maintenance, or replacing essential facility components such as an air conditioning unit. Vehicle maintenance and washing would occur in a vehicle maintenance garage or appropriate area.

2.4 NO ACTION ALTERNATIVE

Under the No Action Alternative, DHS would not purchase the 62.76 acres of land from Maverick County and would not construct the JPC. CBP would continue to lease the 25.70 acres for the North Eagle Pass SSF and personnel would continue to use the existing SSFs for processing. The use of the existing SSFs would not facilitate inter-agency coordination. Additionally, the existing SSFs would remain undersized and would not be able to be expanded or renovated to adequately meet increasing demands. Continued use of the existing SSFs could adversely affect the health, safety, work efficiency, and morale of DHS personnel along with the undocumented noncitizens being processed, which could impede execution of the mission and operations of those facilities.

The No Action Alternative does not satisfy the purpose and need for the Proposed Action, as identified in **Section 1.3**. The No Action Alternative is carried forward for analysis in the EA to provide a comparison of baseline conditions to the Proposed Action, as required by the CEQ NEPA implementing regulations (40 CFR § 1502.14). The No Action Alternative reflects the status quo and serves as a benchmark against which effects of the Proposed Action can be evaluated. If in the future, DHS considers options to include net-zero technologies that may alter the Proposed Action, additional environmental analysis may be warranted.

2.5 ALTERNATIVES CONSIDERED BUT ELIMINATED FROM FURTHER DETAILED ANALYSIS

DHS evaluated a possible alternative to the Proposed Action but determined that this alternative would not meet the purpose and need for the Proposed Action. This section discusses the alternative that was considered but not carried forward for further detailed analysis in the EA.

2.5.1 13.27-Acre JPC Location Alternative

The potential alternative location initially considered for the proposed JPC is described below and shown in **Figure 2-1**.

13-Acre Lot. This alternative location consists of a privately-owned, approximately 13.27-acre lot at 2209 Dodson Avenue, Del Rio, Texas. The 13-acre property is inadequately sized for the proposed JPC. It would not be able to support the required additional expansion of the JPC and the necessary ancillary support facilities and features outlined in Section 2.3, such as parking and vehicle turnaround services. As such, it was determined that this alternative does not meet the selection criteria discussed in Section 2.2 and it was eliminated from further detailed analysis.



Figure 2-1 Eliminated Alternative Site: 13-Acre Parcel

Final EA DHS Eagle Pass JPC

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3 AFFECTED ENVIRONMENT

3.1 SCOPE OF THE ANALYSIS

This section provides a discussion of the affected environment, as well as an analysis of the potential direct and indirect impacts that the alternatives could have on the affected environment. Cumulative and other impacts are discussed in **Section 4**. All potentially relevant resource areas were initially considered in this EA. In accordance with NEPA, CEQ regulations, and DHS Instruction Manual 023-01-001-01, Rev. 01, this evaluation focuses on those resources and conditions potentially subject to effects, and on potentially significant environmental issues deserving of study. It does not go into detail on insignificant issues.

The following categories describe various types of impacts that could potentially result from the Proposed Action:

- *Short-term or long-term.* These characteristics are determined on a case-by-case basis and do not refer to any rigid time period. In general, short-term effects are those that would occur only with respect to a particular activity or for a finite period or only during the time required for construction or maintenance and repair activities. Long-term effects are those that are more likely to be persistent and chronic.
- *Direct or indirect.* A direct effect is caused by the action and occurs at the same time, at or near the location of the action. An indirect effect is caused by the action and might occur later in time or be farther removed in distance, but still be a reasonably foreseeable outcome of the action. For example, a direct effect of erosion on a stream might include sediment-laden waters in the vicinity of the action, whereas an indirect impact of the same erosion might lead to lack of spawning and result in lowered reproduction rates of indigenous fish downstream.
- *Negligible, minor, moderate, or major.* These relative terms are used to characterize the magnitude or intensity of an impact. Negligible effects are generally those that might be perceptible but are at the lower level of detection. A minor effect is slight, but detectable. A moderate effect is readily apparent. A major effect is one that is severely adverse or exceptionally beneficial.
- *Adverse or beneficial.* An adverse effect is one having unfavorable or undesirable outcomes on the man-made or natural environment. A beneficial effect is one having positive outcomes on the man-made or natural environment. A single act might result in adverse effects on one environmental resource and beneficial effects on another resource.

3.2 LAND USE

This section addresses current land use conditions, plans, and policies affecting the proposed JPC Project Area.

3.2.1 Definition of the Resource

The term "land use" refers to the relationship between people and the land, specifically, how the physical world is adapted, modified, or put to use for human purposes (ILG 2010). In many cases, land use descriptions are codified in local zoning laws. However, there is no nationally recognized convention or uniform terminology for describing land use categories.

In appropriate cases, the location and extent of a Proposed Action needs to be evaluated for its potential effects on a Project Area and adjacent land uses. The foremost factor affecting a Proposed Action in terms of land use is its compliance with any applicable land use or zoning regulations. Other relevant factors include matters such as existing land use at the Project Area, the type of land uses on adjacent properties and their proximity to a Proposed Action, the duration of a proposed activity, and its permanence.

3.2.2 Affected Environment

The Proposed Action would be located in a mixed, rural area of Maverick County, Texas. The property to be purchased consists of developed area for the SSF and "farmland" which is used as rangeland (poor quality animal grazing overgrown with brush). Although impacted by previous use, the Farmland Protection Policy Act (FPPA) would still be relevant due to the presence of certain loamy and silty soils considered important per the Natural Resources Conservation Service (NRCS). The FPPA regulation is introduced in this section and discussed further in **Section 3.3**.

Maverick County encompasses approximately 818,560 acres, of which approximately 434,446 acres are farmland. More than 80 percent of the total farmland in the county is used as irrigated cropland (UACE 2020). Maverick County does not have specific land use classifications for the Project Area. However, from the 2022 EDR reports and the *Final Biological Survey Report for the Proposed Joint Processing Center, 223 Fire Fly Lane Eagle Pass, Maverick County, Texas,* land use within the Project Area primarily consists of developed institutional land (SSF in the southern portion) and rangeland. In addition, much of the Project Area is graded and gravel has been applied to the surface for installation of the SSF (TPWD 2023a).

The Project Area does not have an official designated land use given by Maverick County. Adjacent land uses include a combination of agricultural, commercial, industrial, undeveloped, and institutional uses. The Maverick County Water Treatment Plant (WTP) is located approximately 100 feet from the southeastern boundary of the Project Area and a borrow pit located on Maverick County land is located approximately 400 feet to the north of the Project Area. The Maverick County Detention Center is located approximately 500 feet east of the Project Area and a county building housing the Maverick County Emergency Operations Center is approximately 300 feet to the northwest of the Project Area.
3.2.3 Environmental Consequences

Evaluation of potential land use impacts is based on the level of land use sensitivity in areas affected by a Proposed Action and compatibility of Proposed Actions with existing conditions. In general, a land use impact would be adverse if it were to meet one or more of the following requirements:

- Be inconsistent or in noncompliance with existing land use plans or policies.
- Preclude the viability of existing land use.
- Preclude continued use or occupation of an area.
- Be incompatible with adjacent land use to the extent that public health or safety is threatened.
- Conflict with planning criteria established to ensure the safety and protection of human life and property.

3.2.3.1 Proposed Action

Besides the SSF, there are other building developments in the surrounding area. Adjacent land use is mixed, rural land and includes agricultural, commercial, residential, and undeveloped uses. Thus, under the Proposed Action, land use of the Project Area would not change significantly. The closest highly developed area is closer to the city of Eagle Pass, Texas, although the Project Area falls within the city limits.

Under the Proposed Action, once construction of the JPC is complete, most of the Project Area would be developed. Land use in the Project Area would be partially altered due to the construction, maintenance, and operation of the JPC. Vegetation clearing and soil disturbance would alter the current soil type and vegetation cover. However, the impact would be minor because most of the Project Area has been previously disturbed and is currently either used by the SSF or overgrown with brush, small trees, and cactus. Even in the vegetated areas outside the SSF boundary, the land has been disturbed by prior construction, various trails, and vehicle pathways. Currently, approximately half of the land has already been disturbed from construction activities for the existing soft-sided processing facility pad. In addition, most of the remaining land has already been disturbed because of prior construction activities. As a result, only a small fraction of the total land use would be altered from the Proposed Action. Therefore, the Proposed Action would have long-term, minor, adverse impacts on land use within the immediate or surrounding areas as land use would not significantly change.

Approximately 35.6 acres of NRCS farmland of statewide importance and prime farmland, if irrigated, would have the potential of being directly converted to non-agricultural use from construction of the JPC and ancillary support facilities. Because there are no signs of irrigation within the Project Area, the conversion of land from farmland soils to non-agricultural use would result in short- and long-term, minor, adverse impacts on land use. Additionally, if the farmland were to be irrigated, the conversion of farmland of statewide importance and prime farmland would have short-term, minor, adverse impacts because there is similar farmland in the surrounding areas, and within the Project Area much of the farmland has already been disturbed.

There are no known conflicts between the Proposed Action and objectives of federal, state, regional, or local land use plans, policies, or controls for the Project Area.

3.2.3.2 No Action Alternative

No changes from those described in **Section 3.2.2** would occur. DHS would continue to use the existing SSF and the JPC would not be constructed. As a result, no short- or long-term impacts on land use would be anticipated.

3.3 GEOLOGY AND SOILS

3.3.1 Definition of the Resource

Geological resources consist of the Earth's surface and subsurface materials. Within a given physiographic province, these resources typically are described in terms of topography and physiography, geology, soils, and, where applicable, geologic hazards and paleontology. Topography and physiography pertain to the general shape and arrangement of a land surface, including its height and the position of its natural and human-made features. Geology is the study of the Earth's composition and provides information on the structure and configuration of surface and subsurface features. Such information derives from field analysis based on observations of the surface and borings to identify subsurface composition.

Soils are the unconsolidated materials overlying bedrock or other parent material. Soils typically are described in terms of their complex type, slope, and physical characteristics. Differences among soil types in terms of their structure, elasticity, strength, shrink-swell potential, and erosion potential affect their ability to support certain applications or uses. In appropriate cases, soil properties must be examined for their compatibility with particular construction activities or types of land use.

Important farmland is protected under the FPPA of 1981 (7 U.S.C. § 4201 et seq.). The intent of the FPPA is to minimize the extent that federal programs contribute to the unnecessary and irreversible conversion of farmland to non-agricultural uses. The NRCS is responsible for overseeing compliance with the FPPA and has developed the rules and regulations for implementation of the Act (7 CFR Part 658). For the purposes of the FPPA, important farmland includes prime farmland, unique farmland, and farmland of statewide or local importance. The land could be cropland, pasture, rangeland, forest, or other land, but not urban developed land or water. The FPPA defines these important farmlands as follows:

- *Prime farmland:* Land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops, and that is also available for these uses.
- *Unique farmland:* Land other than prime farmland that is used for the production of specific high value food and fiber crops. Unique farmland is not based on national criteria.
- *Farmland of statewide or local importance:* Land that is of statewide or local importance other than prime or unique farmland that is used for the production of food feed, fiber,

forage, or oilseed crops, as determined by the appropriate state or local government agencies (7 U.S.C. § 4201[c][1]).

Determination of whether an area is considered important farmland and potential impacts associated with a Proposed Action are based on the preparation of the Farmland Conversion Impact Rating Form (AD-1006) for areas where farmland soils occur and by applying criteria established at Section 658.5 of the FPPA (7 CFR Part 658). Lands that receive a combined total site assessment score of less than 160 points on the Farmland Conversion Impact Rating Form are not covered by the FPPA (7 CFR § 658.2[a]).

3.3.2 Affected Environment

Regional Geography and Geology. The Project Area is within the South Texas Brush Physiographic Province of Texas. The South Texas Brush region is generally flat with isolated rolling hills. The predominate geology consists of igneous rock and sedimentary gravels with unconsolidated cobbles of cemented caliche, quartz, chert, and limestone commonly mapped in the region, including the Uvalde Gravels geologic unit (see Figure 3-1) (USGS 2023a). The Uvalde Gravel mapped geologic unit consists of caliche-cemented gravels that include wellrounded cobbles of chert, some cobbles of quartz, limestone, and igneous rock with some boulders measuring up to 1-foot in diameter (USGS 2023a).

Topography. The topography of the Project Area exhibits little topographic relief. Elevation ranges from approximately 840 to 850 feet above mean sea level (USGS 2019). There are no steep slopes within the Project Area.

Soils. Three soil types are present within the Project Area (see **Figure 3-2**). Mapped soil units include Jimenez association, rolling; Elindio association, nearly level; and Darl association, nearly level (USDA 2023). Overall, soil associations found within the Project Area consist of generally shallow soils with depths ranging from 9 to 26 inches below ground surface (bgs) (23 to 66 centimeters bgs) to subsoil.

A Phase I Environmental Site Assessment conducted in December 2022 reported a pile of broken skeet and identified a unique structure type as a former skeet shooting range. The skeet range area is within the Jimenez and Elindio soil associations and is in the eastern portion of the Project Area. Lead shot and bullets from shooting ranges have been known to leach into subsurface soils and groundwater. Also, clay pigeons used as targets are made using pitch as a binder and can contain contaminants (NIWC 2021). Fieldwork for a Phase II Environmental Site Assessment was performed in February and March 2023 within a 14-acre area. Most of the soil contamination was due to PAHs close to the former skeet shooting range. Further details regarding the Phase II Environmental Site Assessment and potential soil contamination are discussed in **Section 3.11.2**.

Jimenez loamy soil makes up approximately 39 percent of the Project Area (22.7 acres). This soil type occurs in the south-central and far west portions of the Project Area and does not have a farmland classification (not prime farmland). The typical profile of this map unit is very gravelly loam from 0 to 9 inches below grade, cemented material from 9 to 18 inches, and variable from 18 to 60 inches below grade. Jimenez loamy soil is considered a well-drained unit with an

erosion class of 1 and consists of soils that have lost some, but on the average less than 25 percent surface. Throughout most of the Project Area, the thickness of the surface layer is within the normal level of uneroded soil (USDA 2023).

Elindio fine-silty soil makes up approximately 36 percent of the Project Area (21.3 acres). This soil type occurs in the central, west, far east, and far south portions of the Project Area and would typically be found along intermittent riverine areas. Elindio fine-silty soil is designated as prime farmland if irrigated. The typical soil profile recorded for this association is silty clay loam from 0 to 15 inches, clay loam from 15 to 39 inches below grade, and clay loam from 39 to 72 inches below grade. It is considered a well-drained unit with an erosion class of 1.

Darl loamy soil makes up approximately 25 percent of the Project Area (14.4 acres). This soil type occurs in the center of the Project Area. It is designated as a farmland of statewide importance, if irrigated. The typical soil profile recorded for this association is clay loam from 0 to 16 inches, cemented material from 16 to 18 inches below grade, and variable from 18 to 50 inches below grade. It is well-drained with no frequency of flooding or ponding and has an erosion class of 1.

Important Farmland. The NRCS bases important farmland soil determinations on the most recent soil survey for an area. The most recent soil survey for Maverick County was completed in 2019 (USDA 2023). The Project Area contains approximately 14.4 acres of farmland with statewide importance, if irrigated (24 percent of Project Area) and 21.3 acres of prime farmland if irrigated (36 percent of Project Area). Within the Project Area, Darl loamy soil, nearly level, and Elindo fine-silty soil, nearly level, are considered prime farmland if irrigated; however, these soils have never been irrigated based on historical aerial photographs (EDR 2022).

Geologic Hazards. Landslides, rockfalls, sinkholes, and earthquakes are common in southwestern Texas. Landslides and rockfalls can occur when unstable rock suddenly collapses and moves downslope. All parts of Texas with exposed rock outcrops are subject to these gravity-driven geologic hazards (University of Texas 2021). Sinkholes are common in Texas from the dissolution of minerals at depth (University of Texas 2021). In southwestern Texas, Cretaceous aged carbonate strata and interbedded salts are dissolved over time, which can lead to sinkholes. Earthquakes can happen with rock strata on either side of a geologic fault move relative to one another. While earthquakes are common in Texas, they are generally minor and do not cause structural damage to buildings (University of Texas 2021).



Figure 3-1 Site Geology



Figure 3-2 Site Soils

3.3.3 Environmental Consequences

Protection of unique geological features, minimization of soil erosion, and the siting of facilities in relation to potential geologic hazards are considered when evaluating potential impacts of a Proposed Action on geological resources. Generally, adverse impacts can be avoided or minimized if proper techniques, erosion-control measures, and structural engineering design are incorporated into project development.

Impacts on geology and soils would be adverse if they would alter the lithology (i.e., the character of a rock formation), stratigraphy (i.e., the layering of sedimentary rocks), and geological structures that dictate groundwater systems; change the soil composition, structure, or function within the environment; or increase the risk of geological hazards.

3.3.3.1 Proposed Action

Regional Geology. No impacts on geology would be expected. Activities associated with the construction, maintenance, and operation of the JPC and ancillary support facilities would not alter lithology, stratigraphy, or the geological structures that control the distribution of aquifers and confining beds.

Topography. Short- and long-term, minor, adverse impacts on topography would be expected from earthmoving and grading activities during construction. Topography would be altered to provide flat surfaces for the JPC building, ancillary support facilities and structures, and access roads. Impacts would be minor because the Project Area does not contain substantially steep slopes and is generally level. Earthmoving and grading would not be required for proposed maintenance and operations, other than minor improvements to roads and/parking areas; therefore, no impacts on topography would be expected from these activities post-construction.

Soils. Short-term, minor, adverse impacts on soils would result from temporary disturbance of ground surfaces, earthmoving activities, and grading within the Project Area during construction. These activities would excavate soils and expose rock materials, temporarily remove vegetation in some areas, and expose soils to erosion. The use of trucks and construction equipment would result in soil compaction, which could also lead to increased rates of erosion and alter soil structure. These activities have the potential to adversely affect natural soil characteristics such as water infiltration, storage, and nutrient levels, thereby reducing soil productivity. Specific construction limitations and considerations would depend on the type of construction activity and the specific subsurface composition encountered.

In general, accelerated erosion of soils would be short-term during construction activities. Erosion would be minimized by appropriately siting and designing facilities while taking into consideration soil limitations, employing construction and stabilization techniques appropriate for the soil and climate, and implementing best management practices (BMPs) and erosioncontrol measures. BMPs would include the installation of silt fencing and sediment traps, application of water to disturbed soil to reduce dust, and revegetation of disturbed areas as soon as possible following ground disturbance, as appropriate. BMPs are provided in **Appendix D**. Construction materials would be appropriately stabilized with temporary erosion control measures during construction, and with long-term measures in accordance with the Stormwater Pollution Prevention Plan (SWPPP) and native plant revegetation plan during operation and maintenance of the JPC. Impacts would be localized to the proposed disturbance area due to the implementation of these measures and BMPs. Additionally, all soils within the proposed disturbance area have a slight erosion hazard, with an erosion class of 1. This erosion class is defined as soils that have lost an average of less than 25 percent surface area and the thickness of the surface layer is within the normal level of uneroded soil (USDA 2023). Therefore, short-term impacts would be minor.

Long-term, negligible, adverse impacts from the addition of up to approximately 31.5 acres of impervious surfaces from the Proposed Action would also be expected. Reduced soil infiltration and soil productivity and increased runoff from additional impervious surfaces would occur; however, permanent runoff control measures would be implemented to prevent erosion and flooding in surrounding areas. These measures would reduce potential impacts from maintenance and operations.

Important Farmlands. Approximately 14.4 acres of NRCS farmland of statewide importance if irrigated (Darl loamy soil, nearly level) and approximately 21.2 acres of NRCS prime farmland if irrigated (Elindio fine-silty soil, nearly level) for a total of 35.6 acres have the potential of being directly converted to non-agricultural use from JPC construction. However, according to historical aerial photographs, the Project Area has never been irrigated for agricultural or other purposes (EDR 2022). Therefore, no impacts would be made to important farmlands.

Geologic Hazards. Long-term, minor, negligible impacts could occur due to geological hazards. While earthquakes are common in Texas, they are generally minor and do not cause structural damage to buildings (University of Texas 2021). For instance, on April 13, 2023, an earthquake with a magnitude of 3.0 occurred approximately 35 miles southeast of Eagle Pass, Texas (USGS 2023b). However, it was not felt, nor did it cause any structural damage because the epicenter was 3.4 miles below the surface. Two other minor earthquakes occurred in the month of April 2023 approximately 60 miles away from Eagle Pass, Texas. However, these were of a lower magnitude and occurred even deeper below-ground than the April 13 earthquake (USGS 2023b). The proposed facilities would meet all building requirements outlined in applicable state and local building codes to minimize potential impacts from earthquakes.

While there are no slopes greater than 25 percent within the Project Area, implementation of BMPs and erosion-control measures, as well as other appropriate preventative measures identified by federal, state, and local agencies, would be implemented where applicable to minimize potential impacts from landslides. These preventative measures could include regular drain and culvert maintenance, drainage ditch and channel maintenance, vegetation maintenance, and implementation of roadside stabilization measures.

3.3.3.2 No Action Alternative

Under the No Action Alternative, a new JPC would not be constructed, and DHS would continue to use the existing SSFs. Geological conditions would remain as described in **Section 3.3.2**. No impacts on geological resources would be expected.

3.4 BIOLOGICAL RESOURCES (VEGETATION, TERRESTRIAL AND AQUATIC WILDLIFE, SPECIAL STATUS SPECIES)

3.4.1 Definition of the Resource

Biological resources include native or naturalized plants and animals and the habitats in which they occur, and native or introduced species found in landscaped or disturbed areas. Protected species are defined as those listed as threatened, endangered, or proposed or candidate species for listing by the USFWS or Texas Parks and Wildlife Department (TPWD). Federal species of concern are not protected by the ESA; however, these species could become listed, and therefore are given consideration when addressing impacts of an action on biological resources. Certain avian species are protected by the MBTA and Bald and Golden Eagle Protection Act.

Sensitive habitats include those areas designated by the USFWS as critical habitat protected by the ESA and sensitive ecological areas as designated by state or federal rulings. Sensitive habitats also include wetlands, plant communities that are unusual or of limited distribution, and important seasonal use areas for wildlife (e.g., migration routes, breeding areas, and crucial summer/winter habitats).

Habitat conditions observed in the Project Area were used to evaluate the potential for occurrence of special status species based on a combination of publicly available data searches and the professional expertise of investigating biologists during survey work. The potential for each special status species to occur within the Project Area or nearby was then evaluated according to the following criteria:

- *No Potential.* Habitat on and adjacent to the Project Area is clearly unsuitable for the species' requirements. For wildlife, this is based on a lack of one or more essential habitat elements (foraging, breeding, cover, substrate, elevation, hydrology, plant community, Project Area history, or disturbance regime). Surveys for threatened and endangered species that requiring multiple surveys at specific times of the year are not considered necessary.
- Unlikely. Few of the habitat components meeting the species' requirements are present, and/or the majority of habitat on and adjacent to the Project Area is unsuitable or of very poor quality. The species is not likely to be found on the Project Area. Species surveys as described above are not considered necessary but could be performed to confirm species absence.
- *Moderate Potential.* Some of the habitat components meeting the species' requirements are present, and/or only some of the habitat on or adjacent to the Project Area is unsuitable. The species has a moderate probability of being found on the Project Area. Species surveys could be necessary to determine presence, extent, density, and details of species distribution.
- *High Potential*. Most or all of the habitat components meeting the species' requirements are present and/or most of the habitat on or adjacent to the Project Area is highly suitable. The species has a high probability of being found in the Project Area. If species surveys are not conducted, then it is recommended that

the species is assumed to be present. Species surveys could be necessary to determine extent, density, and details of species distribution.

• *Present.* Species was observed on the Project Area or has been documented recently as being on the Project Area. Focused species surveys could still be needed to determine extent, density, and details of species distribution.

3.4.2 Affected Environment

This section includes a description of biological resources, including vegetation, wildlife, and special status species, occurring within the Project Area. DAWSON scientists conducted reconnaissance-level biological surveys of the Project Area on December 14 and 15, 2022. The survey is described in greater detail in **Appendix C**.

Vegetation

According to the *Description of the Ecoregions of the United States* compiled by Robert G. Bailey of the U.S. Forest Service in 1995, the Project Area is within the Chihuahuan Desert Province. The 85,000-square mile province has undulating planes with elevations near 4,000 feet, from which somewhat isolated mountains rise 2,000 to 5,000 feet above mean sea level. Extensive dunes of silicon sand cover parts of the province. The climate of the Chihuahuan Desert is characterized by long, hot summers and short winters where temperatures may fall below freezing for a brief time. The climate is notably arid with extremely dry spring and summer seasons (Bailey 1995). Mean annual precipitation has been reported as less than 6 inches in the province; however, the current average annual rainfall in Eagle Pass is 20 inches per year (NPS 2022).

Thorny shrubs are typical of the Chihuahuan Desert. They frequently grow in open stands, but sometimes form low, closed thickets. In many places, they are associated with short grass, such as grama. Extensive arid grasslands cover most of the high plains of the province. On deep soils, honey mesquite is often the dominant plant. Frequently observed vegetation includes prickly pear, as well as yuccas and creosote bush. Creosote bush is especially common in gravely soils (Bailey 1995).

TPWD identifies the region as the South Texas Plains and brush country. The primary vegetation consists of thorny brush such as mesquite, acacia, and prickly pear mixed with areas of grassland. Average monthly rainfall is lowest during winter (January), and highest during spring (May or June) and fall (September). Summer temperatures are high, with very high evaporation rates. Soils of the region are alkaline to slightly acidic clays and clay loams. The deeper soils support taller brush, such as mesquite and spiny hackberry, whereas short, dense brush characterizes the shallow caliche soils. Although many land changes have occurred in this region, the brush country remains rich in wildlife and is a haven for many rare plant and animal species. It is home for semi-tropical species that occur in Mexico, grassland species that range northward, and desert species commonly found in the Trans-Pecos ecoregion (Chihuahuan Desert region of West Texas) (TPWD 2023a).

The Project Area totals 62.76 acres, but approximately 26 acres are developed and in use for the SSF. The ground surface in the developed/fenced area, and areas outside the SSF fence line,

were observed to be graded and in many areas gravel was applied to the ground surface. An unpaved access road is located at the northern entrance, which splits into two and provides access to the fenced SSF and the eastern portion of the Project Area. One other access road surrounds the SSF.

The remainder of the Project Area was observed to be rangeland, an area of land with native herbaceous or shrubby vegetation which is grazed by wild herbivores. Vegetation was generally dense with small areas of bare ground and various tracks crisscrossing the terrain. This vegetation, which covers approximately 37 acres of the Project Area, and is characteristic of the Chihuahuan desert scrub vegetation community, is depicted in **Figure 3-3**. Vegetation observed at the Project Area is presented in **Table 3-1** and includes trees, shrubs, succulents (typically cacti), grasses, and forbs (herbaceous flowering plants that are a grass, sedge, or rush).

| Common Name | Scientific Name | Growth Form |
|--------------------|----------------------------|--------------------|
| Honey Mesquite | Prosopis glandulosa | Tree |
| Bluewood | Condalia hookeri | Shrub |
| Guajillo | Senegalia berlandieri | Shrub |
| Palo Verde | Parkinsonia Texana | Shrub |
| Prickly Leaf | Thymophylla acerosa | Shrub |
| Sagebrush | Artemisia tridentata | Shrub |
| Soapbush | Guaiacum angustifolium | Shrub |
| Spiny Hackberry | Celtis ehrenbergiana | Shrub |
| Texas Lantana | Lantana urticoides | Shrub |
| Texas Sage | Leucophyllum frutescens | Shrub |
| Christmas Cholla | Cylindropuntia leptocaulis | Succulent |
| Horse Crippler | Echinocactus texensis | Succulent |
| Pitaya | Echinocereus enneacanthus | Succulent |
| Prickly Pear | Opuntia Mill spp. | Succulent |
| Yucca | Yucca spp. | Succulent |
| Annual Ragweed | Ambrosia artemisiifolia | Forb |
| Common Sunflower | Helianthus annuus | Forb |
| Copper Globemallow | Sphaeralcea angustifolia | Forb |
| Gumhead | Gymnosperma glutinosum | Forb |
| Iron Cross | Oxalis tetraphylla | Forb |
| Verbena | Glandularia sp. | Forb |
| Tickseed | Coreopsis tinctoria | Forb |
| Prairie Tea | Croton monanthogynus | Forb |
| Woodsorrel | Oxalis stricta | Forb |
| Buffelgrass | Cenchrus ciliaris | Grass |
| Canada Rye | Elymus canadensis | Grass |
| Prairie Junegrass | Koeleria macrantha | Grass |
| Purple Three-Awn | Aristida purpurea | Grass |
| Windmill Grass | Chloris cucullata | Grass |
| Side-Oats Grama | Bouteloua curtipendula | Grass |

Table 3-1 Vegetation Observed During the Natural Resource Survey



Figure 3-3 Vegetation Map

Native Vegetation. All of the area outside the fence line of the SSF, approximately 37 acres, consists of fragmented native vegetation. This vegetation makes up 59 percent of the total 62.76-acres being purchased for the JPC. The dominant vegetation community in this area is Chihuahuan desert scrub characterized by native rangeland and brush with disturbed areas.

Non-Native Vegetation. The approximate 26-acres where the SSF is located contains disturbed habitat and accounts for 41 percent of the total 62.76 acres being purchased for the JPC. The SSF facility contains buildings and bare ground used for parking areas and driving surfaces.

Local Special Status Vegetation Species. No special status vegetation species were mapped within the Project Area. The TPWD Wildlife Habitat Assessment Program maintains a county list of plants and wildlife designated extirpated, endangered, threatened, potentially threatened, species of concern, and special interest. The county list for Maverick County is included in **Appendix C** (TPWD 2023b).

Terrestrial and Aquatic Wildlife Resources

Terrestrial and aquatic wildlife resources include native or naturalized terrestrial and aquatic animals and the habitats in which they exist. This section includes a description of terrestrial and aquatic wildlife species and their habitats that are likely to be found in the Project Area. In January 2023, DAWSON reviewed the following publicly available data: TPWD's Texas Natural Diversity Database (TXNDD) for elemental occurrences, NatureServe Explorer, eBird, and iNaturalist. Each data application provides information regarding species occurrences and/or their habitats. Federally listed threatened, endangered, and candidate species and state-listed threatened and endangered wildlife species are addressed below.

TXNDD data requires a formal request of the agency and requests generally take five business days to complete. According to publicly available resources made available by TPWD, there are no critical habitats, rare areas, Southern Great Plains Crucial Habitat, or Land and Water Resources Conservation and Recreation Plan Sites at the Project Area.

NatureServe Explorer is a network of organizations that provides data on species and ecosystems for planning, assessment, and informational purposes. The reporting area is large and encompasses many different habitats. According to the NatureServe report, there are two federally listed species that have occurred in the reporting area (343 square mile hexagon). These species include Rio Grande shiner (*Notropis jemezanus*) and ocelot (*Leopardus pardalis*). Dates of these occurrences are not reported. However, the Rio Grande shiner would not occur in or near the Project Area since there are no aquatic habitats within the Project Area, and the ocelot, a type of wild cat, is unlikely to occur due to human activities and development (the SSF and other nearby occupied buildings) of most of the Project Area.

eBird is maintained by the Cornell Lab of Ornithology and provides a public platform for birders to report bird distribution, abundance, habitat use, and other trends in a scientific framework. A total of 103 species have been observed at the "Radar Base WTP & Firefly Lane," which is listed as an eBird Hotspot Location. These sightings were between April 30, 2019, and March 19, 2023. The Radar Base WTP refers to the Maverick County WTP adjacent to the Project Area.

All of the bird species identified at the Radar Base WTP & Firefly Lane location per eBird are common and have the designation of least concern (eBird 2023).

Similar to eBird, iNaturalist is a public platform used to document observations of flora and fauna. It is maintained by the California Academy of Sciences and National Geographic Society. No observations were documented at or nearby the Project Area (iNaturalist 2023).

During the December 2022 biological survey, DAWSON conducted a bird nesting survey to examine the Project Area for existing and former nests or evidence of avian (bird) species. The bird breeding season near Eagle Pass occurs from approximately March to September. DAWSON did not observe any former bird nests in shrubs or trees. DAWSON observed a pair of flycatchers calling to each other, white-winged dove, mourning dove, red-winged blackbird, and cactus wren during the survey. The survey was conducted outside of the breeding season. **Table 3-2** lists the species that were directly observed or signs of them observed during the survey.

| Common Name | Scientific Name | | | | |
|---------------------------|-------------------------|--|--|--|--|
| Vertebrates | | | | | |
| White-Tailed Deer | Odocoileus virginianus | | | | |
| Desert Cottontail | Sylvilagus audubonii | | | | |
| Common Grackle | Quiscalus quiscula | | | | |
| Roadrunner | Geococcyx californianus | | | | |
| White-winged Dove | Paloma ala blanca | | | | |
| Red-winged Blackbird | Agelaius phoeniceus | | | | |
| Mourning Dove | Paloma huilota | | | | |
| Cowbird | Molothrus ater | | | | |
| Common Sparrow | Passer domesticus | | | | |
| Invertebrates | | | | | |
| Yellow Sulfur (butterfly) | Anteos maerula | | | | |
| Orange Sulfur (butterfly) | Colias eurytheme | | | | |

Table 3-2 Wildlife Observed During the Natural Resource Survey

Aquatic Resources. Several isolated pools of rainwater were observed in shallow ditches within the Project Area. There is one 52-foot-long seasonal drainage ditch in the southeastern portion of the Project Area. No other aquatic resources were identified at the Project Area.

Local Special Status Terrestrial Species. The agencies that have primary responsibility for the conservation of plant and animal species in Texas are the USFWS and TPWD. These agencies maintain lists of plant and animal species that have been classified, or are potential candidates for classification, as threatened or endangered in the State of Texas. No special status terrestrial or aquatic species were mapped within the Project Area. The TPWD Wildlife Habitat Assessment Program maintains a county list of plants and wildlife designated extirpated, endangered, threatened, potentially threatened, species of concern, and special interest. The county list for Maverick County is included in **Appendix C** (TPWD 2023b). An analysis of state-listed rare, threatened, and endangered species along with their associated BMPs are outlined in **Appendix D**.

Threatened and Endangered Species

Threatened and endangered species are commonly protected because their historic range and habitat have been reduced and will only support a small number of individuals. Some species have declined for natural reasons, but declines are commonly exacerbated or accelerated by manmade influences. Anthropogenic influences that have contributed to reduced range and habitat availability and reduced populations of wildlife or plants. Some of these disturbances include agriculture, livestock grazing, urban development and road construction, overcollection, trampling and off-road vehicle use, hydrologic modifications, and altered fire regimes. Once natural vegetation and habitat are disturbed, introduced (exotic or non-native) species can colonize more readily and out-compete native species. Some species occupy specific niches and have unique requirements, so even minor alterations to habitat are not well-tolerated by those species.

Table 3-3 includes the USFWS Information for Planning and Consultation (IPaC) lists endangered, threatened, and candidate species. Only two birds and one insect with the potential to occur at or in the vicinity of the Project Area were identified (accessed December 2022). Biological surveys also conducted in December 2022 confirmed that there is no suitable habitat for piping plover (*Charadrius melodus*) or red knot (*Calidris canutus rufa*) in the Project Area; therefore, these species are not likely to occur.

Milkweed, which serves as host plants for the monarch butterfly (*Danaus plexippus*) was not observed at the Project Area; however, other nectar plants could be a source of food for migrating monarch butterflies. These plants include Texas Lantana (*Lantana urticoides*) and common sunflower (*Helianthus annuus*), both of which were observed flowering and in good abundance during the survey.

Based on a review of the IPaC information and field surveys, the Project Area occasionally has sufficient native floral resources (nectar plants) to support foraging for the monarch butterfly. In addition, Eagle Pass is a historically important fall and spring flyway for monarch butterfly migration. The monarch butterfly is currently a candidate species under Section 7 of the ESA, but is not yet proposed for listing; therefore, consultation with USFWS would not be required. A copy of the IPaC list is provided in **Appendix C**.

Table 3-3 Endangered, Threatened, and Candidate Species and their Potential to Occur at the Project Area

| Common Name | Scientific Name | Status | Critical Habitat Description | | Suitable Habitat in Project Area? |
|----------------|--------------------------|-------------------------|--|---|--|
| Piping Plover | Charadrius melodus | Federally Endangered | Yes, but does not overlap the Project Area | Sandy beaches, sand flats, and mudflats along coastal areas. | No |
| Red Knot | Calidris canutus rufa | Federally Endangered | Yes, but does not overlap the Project Area | Muddy or sandy coastal areas, bays and estuaries, and tidal flats. | No |

| Common Name | Scientific Name | Status | Critical Habitat | Habitat Description | Suitable Habitat in Project Area? |
|----------------------|---------------------|-----------|------------------|---|--|
| Monarch Butterfly | Danaus plexippus | Candidate | No | Fields, Roadside areas, open areas, urban gardens with milkweed and flowering plants. | No |

Source: USFWS 2023.

In addition to the IPaC resource, TPWD responded to a request for information in a letter dated March 24, 2023. The letter highlighted the following state and special status species as having the potential to occur in the Project Area: American black bears (*Ursus americanus*), Texas horned lizard (*Phrynosoma cornutum*), Texas tortoise (*Gopherus berlandieri*), Reticulate collared lizard (*Crotaphytus reticulatus*), Tamaulipan spot tailed earless lizard (*Holbrookia subcaudalis*), and Texas indigo snake (*Drymarchon melanurus erebennus*). Species-specific BMPs are included in the letter in **Appendix A**.

Critical Habitat. There is no designated species-specific critical habitat within or adjacent to the Project Area.

3.4.3 Environmental Consequences

Impacts on vegetated habitat would be considered major and adverse if these impacts permanently affect the range of a sensitive species or population size of a rare plant community.

Impacts on wildlife and aquatic resources would be considered major and adverse if the impacts substantially reduce ecological processes or populations. A substantial reduction is one that threatens the long-term viability of a sensitive species, or results in the substantial loss of a sensitive species' habitat that could not be offset or otherwise compensated.

Effects to threatened and endangered species would be major and adverse if the species or their habitats are adversely affected over relatively large areas, or if any of the following occur:

- Permanent loss of occupied, critical, or another suitable habitat.
- Temporary loss of critical habitat that adversely affects recolonization by threatened or endangered resources.
- Take (as defined under the ESA) of a threatened or endangered species.

3.4.3.1 Proposed Action

Vegetation

Short- and long-term, direct, negligible to minor, adverse effects on vegetation would occur as a result of the Proposed Action. While the SSF has already disturbed approximately 26 acres of the Project Area, the Proposed Action would temporarily impact the remaining approximate

37 acres of vegetation and would permanently impact approximately 31.5 acres of vegetation through both construction and operations.

Construction could result in an increase in fugitive dust emissions, which can hinder plant growth and have an overall negative impact on vegetation (see Section 3.6 for a discussion on air quality). A fugitive dust plan that would include dust suppressants or adhesive soil stabilizers, covering, landscaping, continuous wetting, detouring, barring access, or other acceptable means of reducing airborne dust would be implemented to reduce or eliminate this impact. There would not be a permanent increase in levels of fugitive dust emissions during JPC operation and maintenance.

Vegetation and vegetation communities could be adversely impacted if chemical or petroleum product spills were to occur during construction or operation and maintenance of the proposed JPC and the ancillary support facilities. Spills could potentially leach into soils and harm vegetation outside of the SSF. BMPs identified in **Appendix D**, including the development and implementation of a Spill Prevention Control and Countermeasure (SPCC) Plan would likely reduce or eliminate these impacts.

Recently disturbed soils, such as those at the Project Area during and after construction, could have an increased potential for invasive species spread and establishment. Buffelgrass is an invasive species already scattered throughout the Project Area. These non-native plants, particularly grasses, invade in the early spring and dry quickly in an arid environment, creating a fire hazard which could further degrade native vegetation communities. Protocol for cleaning vehicles and equipment to avoid the spread of invasive species would be followed, and invasive infestations would be managed during construction activities. All fill material would be certified weed- free. These BMPs are furthered described in **Appendix D**.

Terrestrial and Aquatic Wildlife Resources

The Proposed Action would have short-term, direct and indirect, negligible to minor, adverse effects on wildlife. Approximately 37 acres of fragmented, wildlife habitat within the Project Area would be impacted. However, there would be a negligible impact on wildlife because the habitat loss is small compared to the presence of large tracts of land having similar native habitat in the surrounding areas.

Potential impacts on wildlife include habitat removal, construction-related ground disturbance, and noise. Some individuals, such as mammals, migratory breeding birds, and reptiles would likely relocate to other nearby suitable habitat and avoid the Project Area once construction activities commence. Smaller, less mobile species like some insects and spiders could be inadvertently impacted during construction activities. Wildlife could additionally be impacted during the transportation of materials, equipment, and personnel during project activities. To minimize these effects, necessary construction turnouts and equipment and laydown areas would be placed in previously disturbed areas and construction crews would be expected to obey the posted speed limit traveling to and from the Project Area.

Temporary, adverse effects on wildlife from noise during construction would be expected, but the effects should be short-term in nature and are likely to be negligible as there is sufficient nearby habitat for wildlife to move away from project-related noise. Project-specific, noisereducing BMPs would be implemented to decrease impacts, such as construction only occurring during daylight hours and properly maintaining all motor vehicles. Noise from traffic and operations of the JPC would have negligible effects since the SSF is already in operation and traffic and vehicle movement occurs within the Project Area. Noise levels at the JPC and ancillary support facilities would return to pre-construction levels immediately following completion of construction activities. Noise associated with the JPC and ancillary support facilities would be permanent; however, the facilities associated with the Proposed Action would be adjacent to existing industrial facilities and would eventually replace the existing temporary SSF. Therefore, noise associated with construction and operation of the Proposed Action is not anticipated to significantly impact wildlife in the Project Area.

To minimize effects on nesting migratory birds, DHS would conduct surveys prior to project activities to identify active nests of migratory bird species and take appropriate steps to avoid disturbing these areas until migratory bird nesting activities at that location are complete. As a result, the Proposed Action is not expected to significantly impact migratory birds.

Threatened and Endangered Species

Given the lack of suitable habitat, no impacts on federally threatened and endangered species are anticipated. Therefore, DHS determines the Proposed Action would have no effect on federally endangered piping plover and red knot. Under Section 7 of the ESA, when an agency determines a no effect, no further consultation with the USFWS is required for these species. DHS identified a candidate species, the monarch butterfly, with the potential to occur in the Project Area. Although consultation under Section 7 is not required under the ESA for candidate species, DHS would minimize impacts on this species by incorporating native milkweed and other nectar plants into landscaping plans to the greatest extent practical.

3.4.3.2 No Action Alternative

Under the No Action Alternative, DHS would not construct the JPC and ancillary support facilities, and DHS personnel would continue to use the existing SSFs. Biological resources would remain as described in **Section 3.4.2**. No additional impacts on vegetation, wildlife, and protected species would be expected.

3.5 WATER RESOURCES

3.5.1 Definition of the Resource

Water resources are natural and man-made sources of water that are available for use by, and for the benefit of, humans and the environment. Water resources relevant to the location of the Proposed Action include groundwater, surface waters, wetlands, and floodplains.

Groundwater. Groundwater is water that exists in the saturated zone beneath the Earth's surface that collects and flows through aquifers and is used for drinking, irrigation, and industrial purposes. Groundwater typically can be described in terms of depth from the surface, aquifer or well capacity, water quality, and recharge rates.

Surface Water. Surface water includes natural, modified, and man-made water confinement and conveyance features above groundwater that may or may not have a defined channel and discernable water flow. Within this province, the only permanent streams are a few large rivers that originate in more humid provinces. The Rio Grande and Pecos rivers and a few of their larger tributaries are the only perennial (permanent) waters.

Stormwater is an important component of surface water systems because of its potential to introduce sediments and other contaminants that could degrade surface waters, such as lakes, rivers, or streams. Energy Independence and Security Act (EISA) Section 438 (42 U.S.C. § 17094) establishes into law stormwater design requirements for federal development projects that disturb a footprint of greater than 5,000 square feet. Under these requirements, predevelopment site hydrology must be maintained or restored to the maximum extent technically feasible with respect to temperature, rate, volume, and duration of flow.

Water quality standards are regulated by the U.S. Environmental Protection Agency (USEPA) under the Safe Drinking Water Act and the CWA. Section 303(d) of the CWA requires states to identify and develop a list of impaired water bodies where technology-based and other required controls have not provided attainment of water quality standards. The CWA also establishes federal limits, through the NPDES permit process, for regulating point and non-point discharges of pollutants into the Waters of the United State (WOTUS) and quality standards for surface waters. The term "Waters of the United States" has a broad meaning under the CWA and incorporates deep water aquatic habitats and special aquatic habitats (including wetlands).

USACE regulates WOTUS under authority of Section 404 of the CWA and under the Rivers and Harbors Act of 1899. WOTUS is defined in the CFR as traditionally navigable waters that are susceptible to use in commerce or subject to the ebb and flow of the tide, including interstate waters and wetlands, all other waters (intrastate waterbodies, including wetlands), and their tributaries (33 CFR § 328.3). The Texas Commission on Environmental Quality (TCEQ) is responsible for conducting Section 401 certification reviews of all permits issued in Texas under the Section 404 Nationwide Permitting and Individual Permit Program.

Wetlands are a protected resource under EO 11990, *Protection of Wetlands*, "to avoid to the extent possible the short- and long-term, adverse impacts associated with the destruction or modification of wetlands and to avoid direct or indirect support of new construction in wetlands wherever there is a practicable alternative." Wetlands have been defined by agencies responsible for their management.

Potential wetland areas are identified by the presence of (1) hydrophytic vegetation, (2) hydric soils, and (3) wetland hydrology. Areas that are inundated at a sufficient depth and for a sufficient duration to exclude growth of hydrophytic vegetation are subject to Section 404 jurisdiction as "non-wetland waters" and are characterized by an Ordinary High Water Mark (OHWM). Non-wetland waters generally include lakes, rivers, streams, and other open-water habitats.

Floodplains. Floodplains are areas of low, level ground present along rivers, stream channels, or coastal waters that are subject to periodic or infrequent inundation because of rain or melting snow. Flood potential is evaluated by the Federal Emergency Management Agency (FEMA),

which defines the 100-year floodplain as an area within which there is a 1 percent chance of inundation by a flood event in a given year, or a flood event in the area once every 100 years. EO 11988, *Floodplain Management*, requires federal agencies to determine whether a proposed action would occur within a floodplain and to avoid floodplains to the maximum extent possible wherever there is a practicable alternative. Where the only practicable alternative is to site in a floodplain, a specific step-by-step process must be followed to comply with EO 11988, outlined in the FEMA document *Further Advice on EO 11988 Floodplain Management*.

Floodplains within the United States are protected under EO 11988, which requires federal agencies to determine whether a proposed action would occur within a floodplain. This determination typically involves consultation of appropriate FEMA Flood Insurance Rate Maps (FIRMs), which contain enough general information to determine the relationship of the project area to nearby floodplains. If a federal agency action encroaches within the floodplain and alters the flood hazards designated on a FIRM (e.g., changes to the floodplain boundary), an analysis reflecting any changes must be submitted to FEMA.

3.5.2 Affected Environment

Groundwater

The Proposed Action falls within Groundwater Management Area (GMA) 13, which is overseen by the Texas Water Development Board (TWDB). GMAs were created to protect underlying groundwater reservoirs in the state and to control subsidence (Texas Water Code 35.001). The Proposed Action does not overly any TWDB-designated major or minor aquifers in Texas (TWDB 2023a). Domestic water well driller records of water wells drilled in the general vicinity of the Project Area at a similar elevation have recorded groundwater at approximately 27 to 44 feet below grade (TWDB 2023b).

Surface Water and Wetlands

Surface water is important to the water supply in Texas since it accounts for two-thirds of the total existing water supply in the state (TWDB 2022). The Proposed Action lies within the Rio Grande River basin (TWDB 2023c). The Rio Grande River basin is approximately 182,000 square miles in size, of which 49,000 square miles are in Texas. The Rio Grande originates in Colorado and flows 1,896 miles to the Gulf of Mexico. The river flows approximately two miles southwest of the Project Area. There are no impaired water bodies on the Section 303d list that are immediately adjacent to the Project Area (TCEQ 2022, USEPA 2023a).

Communities and municipalities along the U.S.-Mexico border acquire drinking water supplies from both surface water and groundwater. Cities like Eagle Pass use only surface water from the Rio Grande for their drinking water supply (SWAP 2023).

DAWSON conducted a desktop review of the National Wetlands Inventory (NWI) for the Project Area. DAWSON and Gulf South Research Corporation also conducted a field wetland delineation of the Project Area on March 1 and 2, 2022, and December 14 and 15, 2022, respectively. The surveys were conducted in accordance with *Section D, Subsection 2, of Technical Report Y-87-1, Corps of Engineers Wetlands Delineation Manual* and the 2010

Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Great Plains Region (USACE 1987, USACE 2010).

According to USFWS NWI mapping and aerial photography prior to 2019, one intermittent stream and several ephemeral branches of that stream crossed the general area where the SSF is now located and through the Project Area. These small streams, with denser vegetation along the banks, flowed southwest offsite towards the Maverick County Canal which terminates in the Rio Grande. Intermittent waterways are waterways in which flow periodically ceases or that can dry completely. An ephemeral stream has flowing water only during, and for a short duration after, precipitation events in a typical year.

DHS has concluded that due to historical offsite and onsite disturbances from land grading, borrow pits, and other activities, there are no longer any natural intermittent or ephemeral streams on the Project Area. No OHWMs which indicate water flow in a stream were present. In addition, all vegetation observed within the Project Area was identified as upland or facultative upland species and none of the soils observed during field surveys were listed on the National Hydric Soils List.

During the field investigation, CBP observed one potentially jurisdictional water feature or WOTUS, in the southeastern portion of the Project Area. This 52-foot-long seasonal drainage ditch terminates at the Maverick County WTP fence. However, this water feature is not expected to be impacted by the Proposed Action (see **Figure 3-4**). No other potentially jurisdictional wetlands were observed within the Project Area. Historical aerial photographs and topographic maps show the presence of several streams.

A palustrine wetland is mapped offsite at the adjacent Maverick County WTP adjacent to the southeastern boundary of the Project Area. This feature appears to be an uncovered WTP tank and is not a wetland.

Floodplains

A review of FIRMs shows that the Proposed Action is in a minimal flood risk area outside the 0.2 percent annual chance flood (Zone X [unshaded]) (FEMA 2023).



Figure 3-4 Surface Waters and Wetlands Map

3.5.3 Environmental Consequences

3.5.3.1 Proposed Action

Groundwater

The Proposed Action would result in short- and long-term, negligible, adverse impacts on groundwater resources. During construction, soil disturbances could lead to increased sediment transportation during rainfall events that could eventually enter groundwater through recharge points. However, since the Proposed Action does not overlay any major or minor aquifers, the likelihood of contaminants leaching into groundwater is minimal. Additionally, since this area primarily relies on surface water for potable water, it is unlikely that groundwater would be used for water consumption. Therefore, no impacts on groundwater quality would be expected.

Proper housekeeping, equipment maintenance, and containment of fuels and other potentially hazardous materials would be conducted to minimize the potential for an unintended release of fluids. Implementation of BMPs and planning during construction would minimize impacts by controlling the movement of surface water runoff and ensuring no direct access to groundwater recharge points. BMPs could include using temporary construction of barriers such as fiber logs or silt fences, which would be placed based on site-specific evaluations on an as-needed basis.

Surface Water and Wetlands

Short- and long-term, minor, adverse impacts would be expected during construction and maintenance of the JPC and ancillary support facilities. Any unmanaged stormwater flow during construction could cause general erosion to occur, wash out complete sections of road, and, in many instances, make roads impassable. Vegetation clearing and the approximately 31.5-acre increase in impervious surfaces would result in an increase in the volume and velocity of stormwater flow. Erosion-control BMPs would be adopted to maintain runoff on site and would minimize the potential for adverse impacts on the Rio Grande and other downstream surface waters. Additionally, the proposed development of the stormwater management system, would reduce adverse impacts of unmanaged stormwater flow.

No impacts on wetlands or WOTUS features are expected. Only one potentially jurisdictional WOTUS feature exists within the Project Area. This feature, a seasonal drainage ditch, is located outside the existing SSF and is also outside the projected footprint of disturbance from the JPC. No construction would occur in the immediate area of the drainage ditch.

Short-term, minor, adverse impacts on surface water resources would be expected due to the increased demand for water during construction activities. Long-term, minor, adverse impacts on water demand from the Maverick County Airport Water Works would result from the addition of 200 staff and 500 undocumented noncitizens per day at the JPC. As discussed in **Section 3.9.3**, the anticipated water demand following implementation of the Proposed Action is expected to be 6.4 million gallons per year, which is approximately 6 percent of the utility's annual water use in 2021 (TWDB 2023c). The anticipated annual water demand of the Proposed Action is less than 0.0001 percent of the existing annual water supply provided by the Rio Grande (TWDB 2022). Therefore, the Proposed Action is not expected to impact water availability from the Rio Grande, since the quantity of water that would be used over time by

DHS is negligible relative to the water used by all other residential, commercial, or agricultural consumers in the state.

Floodplains

Because the Project Area is not located within a floodplain, the Proposed Action is expected to result in negligible impacts on floodplains. Minimal impacts could occur from the increase in impervious surfaces and, consequently, the potential increase in stormwater discharge into nearby floodplains, some of which are located less than a mile away.

3.5.3.2 No Action Alternative

Under the No Action Alternative, the JPC and the ancillary support facilities would not be constructed, and the existing conditions would remain unchanged. Therefore, land would not be disturbed and the use and management of water resources, including stormwater runoff, would remain as described in **Section 3.5.2**. Unmanaged stormwater could contribute to flooding and sedimentation of the Rio Grande and nearby floodplain areas.

3.6 AIR QUALITY

3.6.1 Definition of the Resource

Air quality is defined by the concentration of various pollutants in the atmosphere. Under the CAA, the six pollutants defining air quality, called "criteria pollutants," include carbon monoxide (CO), sulfur dioxide, nitrogen dioxide, ozone (O₃), suspended particulate matter (measured less than or equal to 10 microns in diameter $[PM_{10}]$ and less than or equal to 2.5 microns in diameter $[PM_{2.5}]$), and lead. CO, sulfur oxides (SO_X), and some particulates are emitted directly into the atmosphere from emissions sources. Nitrogen dioxide, O₃, and some particulates are formed through atmospheric and chemical reactions that are influenced by weather, ultraviolet light, and other atmospheric processes. Volatile organic compounds (VOC) and nitrogen oxides (NO_X) are precursors of O₃ and are used to represent O₃ generation.

Under the CAA (42 U.S.C.), the USEPA has established National Ambient Air Quality Standards (NAAQS) (40 CFR Part 50) for criteria pollutants. Areas that are and have historically been in compliance with the NAAQS or have not been evaluated for NAAQS compliance are designated as attainment areas. Areas that violate a NAAQS are designated as nonattainment areas. Areas that have transitioned from nonattainment to attainment are designated as maintenance areas and are required to adhere to maintenance plans to ensure continued attainment. The CAA gives states the authority to establish their own air quality rules and regulations. Texas enforces the federal NAAQS (30 Texas Administrative Code § 101.21).

The USEPA General Conformity Rule applies to federal actions occurring in nonattainment or maintenance areas and a general conformity determination is required when the total direct and indirect emissions of nonattainment and maintenance criteria pollutants (or their precursors) exceed specified thresholds. The emissions thresholds that trigger requirements for a conformity analysis are called *de minimis* levels. *De minimis* levels (in tons per year [tpy]) vary by pollutant and also depend on the severity of the nonattainment status for the area in question (40 CFR

 \S 93.153). The General Conformity Rule does not apply to federal actions occurring in attainment areas.

Climate Change and Greenhouse Gases (GHGs). Global climate change refers to long-term fluctuations in temperature, precipitation, wind, sea level, and other elements of Earth's climate system. Of particular interest, GHGs are gaseous emissions that trap heat in the atmosphere. GHGs include water vapor, carbon dioxide (CO₂), methane, nitrous oxide, O₃, and several fluorinated and chlorinated gaseous compounds. To estimate global warming potential, all GHGs are expressed relative to a reference gas, CO₂, which is assigned a global warming potential equal to one (1). All GHGs are multiplied by their global warming potential, and the results are added to calculate the total CO₂ equivalent (CO₂e) emissions. The dominant GHG emitted is CO₂, accounting for 79 percent of all U.S. GHG emissions as of 2020, the most recent year for which data are available (USEPA 2022a).

EO 13990, Protecting Public Health and the Environment and Restoring Science to Tackle the Climate Crisis, signed January 20, 2021, reinstated the Final Guidance for Federal Departments and Agencies on Consideration of Greenhouse Gas Emissions and the Effects of Climate Change in National Environmental Policy Act Reviews, issued on August 5, 2016, by CEQ that required federal agencies to consider GHG emissions and the effects of climate change in NEPA reviews (CEQ 2016). The CEQ National Environmental Policy Act Interim Guidance on Consideration of Greenhouse Gas Emissions and Climate Change, issued on January 9, 2023, recommends determining the social cost of GHG emissions from a Proposed Action where feasible as a means of comparing the GHG impacts of the alternatives.

The "social cost of carbon" is an estimate of the monetized damages associated with incremental increases in GHG emissions, such as reduced agricultural productivity, human health effects, property damage from increased flood risk, and the value of ecosystem services (CEQ 2023a). Accordingly, estimated CO₂e emissions and associated social cost of carbon are provided in this EA for informative purposes. The interim social cost of carbon established by the Interagency Working Group for the year 2025 is estimated at 56 dollars per metric ton of CO₂e (in 2020 dollars; IWG-SCGHG 2021).

EO 14008, *Tackling the Climate Crisis at Home and Abroad*, further strengthens EO 13990 by implementing objectives, including requiring federal agencies to develop and implement climate action plans, to reduce GHG emissions and bolster resilience to the impacts of climate change. The DHS *Climate Action Plan* recognizes the effects of climate change to DHS's mission and aims to implement strategies to address the risks posed by climate change including incorporating climate adaptation planning and processes into DHS mission areas, ensuring climate resilient facilities and infrastructure, ensuring climate-ready services and supplies, and increasing climate literacy (DHS 2021a). *The Long-term Strategy of the United States: Pathways to Net-Zero Greenhouse Gas Emissions by 2050* sets target benchmarks to achieve net-zero GHG emissions by no later than 2050 through emission-reducing investments such as carbon-free power generation, zero-emission vehicles, energy-efficient buildings, and expansion and protection of forest areas (DOS and EOP 2021).

USEPA implements the GHG Reporting Program, requiring certain facilities to report GHG emissions from stationary sources, if such emissions exceed 25,000 metric tons of CO₂e per year

(40 CFR Part 98). Major source permitting requirements for GHGs are triggered when a facility exceeds the major threshold of 100,000 tpy for CO₂e emissions.

3.6.2 Affected Environment

USEPA Region 6 and the TCEQ regulate air quality in Texas. The Project Area is in Maverick County, Texas, which is within the Metropolitan San Antonio Intrastate Air Quality Control Region (40 CFR § 81.40). The USEPA has designated Maverick County as in attainment for all criteria pollutants (USEPA 2023b). As such, the General Conformity Rule is not applicable to emissions of criteria pollutants in the county.

Climate Change and GHGs. Eagle Pass has an average high temperature of 98 degrees Fahrenheit (°F) in the hottest month of July and an average low temperature of 40°F in the coldest month of January, with an average annual temperature of 71°F. The annual average precipitation of the region is 21.5 inches. The wettest month of the year is June with an average rainfall of 3.5 inches (Idcide 2023).

Ongoing climate change in Southern Texas, including Maverick County, has contributed to rising temperatures, increased storm intensity, increased severity of flooding and droughts, disruption of natural ecosystems, and human health effects. Despite increases in storms and flooding, warmer temperatures increase evaporation rates and water use by plants, which causes soils to become drier and increases the need for irrigation. In turn, ground and surface water supplies are being consumed at faster rates, which leads to declines in recharge rates and the future availability of water supplies. Higher temperatures in Texas also have led to increased severity, frequency, and extent of wildfires, which expand deserts and change landscapes. High air temperatures can cause adverse health effects such as heat stroke and dehydration, especially in vulnerable populations (i.e., children, elderly, sick, and low-income populations), which can affect cardiovascular and nervous systems (USEPA 2016).

Warmer air can increase the formation of ground-level O_3 , which has a variety of health effects including aggravation of lung diseases and increased risk of death from heart of lung disease (USEPA 2016). In 2017, Maverick County produced 299,274 tons of CO₂e (USEPA 2021). In 2020, Texas produced 624 million metric tons of CO₂ emissions, and was ranked the highest producer of CO₂ in the United States (USEIA 2022).

3.6.3 Environmental Consequences

This air quality analysis estimates the effects on air quality and climate change that would result from the Proposed Action. Effects on air quality are evaluated by comparing the annual net change in emissions for each criteria pollutant against the 250 tpy Prevention of Significant Deterioration (PSD) major source threshold, as defined by USEPA, for each criteria pollutant except for lead. The PSD threshold for lead is 25 tpy. The PSD thresholds do not denote a significant impact; however, they do provide a threshold to identify actions that have insignificant impacts on air quality. For actual operations and regulatory purposes, the PSD major source thresholds only apply to stationary sources; however, they are applied in this EA to both stationary and mobile sources as a surrogate indicator of significance in an attainment area. If a Proposed Action's emissions are below the PSD thresholds, the Proposed Action's impacts on air quality are presumed to be negligible to minor.

Consistent with EO 14008 and the 2016 CEQ Final Guidance, this EA examines GHGs as a category of air emissions. Per the 2023 CEQ Interim Guidance, the social cost of carbon was calculated for the estimated total emissions of CO₂e during the construction period and the foreseeable annual CO₂e emissions from operational activities under the Proposed Action. It also examines potential future climate scenarios to determine whether elements of the Proposed Action would be affected by climate change. This analysis does not attempt to measure the actual incremental impacts of GHG emissions from the Proposed Action, as there is a lack of consensus on how to measure such impacts. Global and regional climate models have substantial variation in output and do not have the ability to measure the actual incremental impacts of a project on the environment.

3.6.3.1 Proposed Action

Short- and long-term, minor, adverse impacts on air quality would occur. **Table 3-4** provides the estimated annual net change in emissions that would result from the Proposed Action, including construction of the JPC (projected to occur in 2024), development for the rest of the 37.06-acre Project Area (2025 through 2029), and facility operations and personnel changes (2030 and later). Detailed emissions calculations are included in **Appendix E**. The annual net change in emissions would not exceed the PSD threshold of 250 tpy for all criteria pollutants (25 tpy for lead); therefore, the Proposed Action would not result in significant impacts on air quality.

| Voor | VOC | NO _X | CO | SO _X | PM ₁₀ | PM _{2.5} | Lead | CO ₂ e |
|-----------------------------|--------|-----------------|-------|-----------------|-------------------------|-------------------|---------|-------------------|
| 1 car | (tpy) | (tpy) | (tpy) | (tpy) | (tpy) | (tpy) | (tpy) | (tpy) |
| 2024 (construction) | 2.559 | 1.482 | 1.897 | 0.004 | 0.738 | 0.055 | < 0.001 | 473.3 |
| 2025 (construction) | 0.584 | 3.101 | 3.880 | 0.011 | 79.109 | 0.117 | < 0.001 | 1,090.1 |
| 2026 (construction) | 0.298 | 1.690 | 2.756 | 0.006 | 0.053 | 0.053 | < 0.001 | 656.8 |
| 2027 (construction) | 0.298 | 1.690 | 2.756 | 0.006 | 0.053 | 0.053 | < 0.001 | 656.8 |
| 2028 (construction) | 0.298 | 1.690 | 2.756 | 0.006 | 0.053 | 0.053 | < 0.001 | 656.8 |
| 2029 (construction) | 10.035 | 0.987 | 1.373 | 0.002 | 0.054 | 0.054 | < 0.001 | 233.2 |
| 2030 and later (operations) | 2.027 | 0.287 | 4.158 | 0.027 | 0.031 | 0.030 | < 0.001 | 430.3 |
| PSD threshold | 250 | 250 | 250 | 250 | 250 | 250 | 25 | N/A |
| Exceeds threshold? | No | No | No | No | No | No | No | N/A |

Table 3-4 Estimated Net Annual Air Emissions from the Proposed Action

Key: N/A = not applicable

Short-term, minor, adverse impacts on air quality would occur from construction of the JPC and the ancillary support facilities. During the construction period, emissions of criteria pollutants and GHGs would be directly produced from operation of heavy construction equipment, heavy duty diesel vehicles hauling debris and construction materials to and from the Project Area, workers commuting daily to and from the Project Area, and ground disturbance. All such emissions would be temporary in nature and produced only when construction activities are occurring.

The air pollutant of greatest concern is particulate matter, such as fugitive dust, which is generated from ground-disturbing activities and combustion of fuels in construction equipment. Construction under the Proposed Action would emit approximately 79 tons of PM_{10} in 2025, which was estimated under the assumption that site grading for development of the rest of the Project Area (not including the JPC; approximately 30.06 acres) would occur over a 6-month period within a single construction year, and no grading would occur in later years. The quantity of uncontrolled fugitive dust emissions from a construction site is proportional to the area of land being worked and the level of activity.

Fugitive dust emissions would be greatest during initial site preparation and site grading activities and would vary from day to day depending on the work phase, level of activity, and prevailing weather conditions. Construction activities would incorporate BMPs and environmental control measures (e.g., wetting the ground surface) to minimize fugitive dust emissions. In addition, work vehicles would be well-maintained and use diesel particulate filters to reduce emissions of criteria pollutants. These BMPs and environmental control measures could reduce particulate matter emissions from a construction site by approximately 50 percent.

Long-term, minor, adverse impacts on air quality would occur from operation of the new JPC and ancillary support facilities. Air emissions would be directly produced from operation of emergency generators, fuel-dispensing activities, and the additional 200 personnel commuting to and from the JPC daily. For this analysis, it was assumed all new personnel would commute to and from the JPC five days per week. Table 3-4 summarizes both construction and operations emissions. Annual operational air emissions for years 2030 and later are identified in the table. In addition, helicopter flights using the proposed helipad would be infrequent and are estimated at 1 flight per week (52 flights per year). Helicopter flights would be conducted using light helicopters within the local area. A helicopter would not be stationed at the JPC. Emissions produced from transient helicopter operations have the potential to affect air quality up to 3,000 feet above ground level (or the mixing zone). At or higher than 3,000 feet above ground level, emissions would be adequately dispersed through the atmosphere to the point where they would not result in ground-level impacts on a localized area. Considering the infrequency of helicopter operations at the JPC, emissions from such operations would have negligible impacts on air quality and, when added to the estimated emissions from operation of the JPC, would not exceed the PSD threshold for any criteria pollutant. Therefore, the Proposed Action would not be expected to result in a long-term, significant impact on air quality.

Climate Change and GHGs. As shown in **Table 3-4**, a total of approximately 3,767 tons (3,417 metric tons) of CO₂e would be produced during the construction period (i.e., 2024 through 2029). Detailed CO₂e calculations are included in **Appendix E**. In accordance with the 2023 CEQ Interim Guidance, comparisons were calculated to equate GHG emissions in familiar terms using the USEPA GHG equivalencies calculator. By comparison, 3,417 metric tons of CO₂e is the GHG footprint of 736 passenger vehicles driven for 1 year or 430 homes' energy use for one year (USEPA 2022b). Over the construction period, the social cost of carbon under the Proposed Action would equal \$191,352 (3,417 metric tons CO₂e x \$56 per metric ton CO₂e = \$191,352).

Emissions from construction during the highest CO_2e emission year (i.e., 2025) would represent less than 2 percent of the total CO_2e emissions in the county and less than 0.0006 percent of the CO_2 emissions in the state. As such, air emissions produced during construction would not meaningfully contribute to the potential effects of global climate change and would not considerably increase the total CO₂e emissions produced by Maverick County or the state of Texas. Therefore, GHG emissions during construction would result in short-term, negligible, adverse impacts on air quality.

Long-term operational CO₂e emissions would start in 2030 and continue indefinitely, with approximately 430 tons of CO₂e produced per year. By comparison, 430 tons (390 metric tons) of CO₂e is the GHG footprint of 84 passenger vehicles driven for 1 year or 49 homes' energy use for 1 year (USEPA 2022b). The annual social cost of carbon from operations would be \$21,840 per year (390 metric tons CO₂e x \$56 per metric ton CO₂e = \$21,840). Total annual operational CO₂e emissions would represent less than 0.2 percent of the total CO₂e emissions in Maverick County. As such, air emissions produced during operations would not meaningfully contribute to the potential effects of global climate change and would not considerably increase the total CO₂e emissions produced by the county. Therefore, GHG emissions from operations would result in long-term, minor, adverse impacts on air quality. Annual emissions from stationary sources (i.e., emergency generators and fuel storage tanks) would not be required to report annual GHG emissions.

Ongoing changes to climate patterns in Southern Texas are described in **Section 3.6.1**. These climate changes are unlikely to affect the ability of DHS to implement the Proposed Action. The Project Area is previously disturbed rangeland that is outside of the floodplain. Rising temperatures, increased storm intensity, increased severity of flooding and droughts, disruption of natural ecosystems, and other results from ongoing climate change would not affect the Proposed Action, nor would the Proposed Action meaningfully contribute to the occurrence of such events.

3.6.3.2 No Action Alternative

Under the No Action Alternative, construction and operation of the JPC would not occur and air quality conditions would remain as described in **Section 3.6.2**. Therefore, no impacts on air quality would occur.

3.7 NOISE

3.7.1 Definition of the Resource

Noise is defined as undesirable sound that interferes with communication, is intense enough to damage hearing, or is otherwise intrusive. Sound intensity is quantified using a measure of sound pressure level called decibels (dB). The A-weighted decibel (dBA) is a measurement in which "A-weighting" is applied to the dB to approximate a frequency response expressing the perception of sound by the human ear and deemphasizes the higher and lower frequencies that the human ear does not perceive well. The range of audible sound levels for humans is considered to be 1 to 130 dBA, and the threshold of audibility is generally within the range of 5 to 25 dBA (USEPA 1981a, USEPA 1981b).

Sensitive noise receptors could include specific locations (e.g., schools, churches, hospitals) or an expansive area (e.g., nature preserves, conservation areas, historic preservation districts) in which occasional or persistent sensitivity to noise above ambient levels exist. Noise is often generated by activities essential to a community's quality of life, such as construction or vehicular traffic.

The Noise Control Act of 1972 established a national policy to promote an environment free from noise that jeopardizes human health and welfare. It directs deferral agencies to comply with applicable federal, state, and local noise control regulations. Neither the state of Texas nor Maverick County maintain a noise ordinance. According to the Federal Aviation Administration and the U.S. Department of Housing and Urban Development, residential units and other noise-sensitive land uses are "clearly unacceptable" in areas where noise exposure exceeds 75 dBA, and "normally acceptable" in areas where noise exposure is 65 dBA or less (24 CFR Part 51).

3.7.2 Affected Environment

The Project Area is in a mixed, rural area with adjacent land uses consisting of commercial, residential, and undeveloped. This is the type of area where the outdoor ambient noise environment can be anywhere from 40 to 50 dB depending on the time of day and level of activity (USEPA 1971). The range land surrounding the Project Area is generally quiet but could occasionally include noisy equipment such as trucks, farm machinery, or tractors. Other existing sources of noise near the Project Area include earthmoving activities at a borrow pit adjacent to the Project Area, aircraft operations at the Maverick County Memorial International Airport (approximately 0.8 mile to the west), road traffic associated with nearby commercial and residential uses, and bird and animal vocalizations.

These mixed-use sources can introduce intermittent noise of between 60 and 80 dB at the Project Area. Noise from aircraft operations typically occurs beneath main approach and departure corridors and in areas immediately adjacent to runways, aircraft parking ramps, and aircraft staging areas. As aircraft take off and gain altitude, their contribution to the noise environment drops to levels indistinguishable from the background. At the nearby airport, 1,112 aircraft operations occurred between August 2015 and August 2016, for an average of approximately 93 operations a month. In 2016, there was one single-engine aircraft based at the airport (FAA 2023). Peak noise levels for single-engine aircraft can range from 63 to 81 dBA; however, noise from all aircraft operations at the airport attenuates to below 65 dBA once it reaches the Project Area (FAA 2012, TRS Audio 2023).

Noise sensitive receptors near the Project Area include residences along U.S. Highway 277, approximately 100 feet southwest of the Project Area boundary. The ambient noise environment within this area is influenced by vehicle traffic along U.S. Highway 277, and noise exposure levels are 65 dBA or less.

Construction noise can cause an increase in sound that is well above ambient levels. Noise levels associated with common types of construction equipment are listed in **Table 3-5**. The Occupational Safety and Health Administration (OSHA) sets legal limits on noise exposure levels. The minimum requirement states that exposure for workers must not exceed 90 dBA over an 8-hour period. The highest allowable sound level to which workers can be constantly exposed

is 115 dBA, and exposure to this level must not exceed 15 minutes within an 8-hour period (29 CFR § 1910.95).

| Construction | Predicted Noise | Predicted Noise | Predicted Noise | Predicted Noise |
|----------------------|------------------------|-------------------|-------------------|------------------------|
| Category and | Level at 50 feet | Level at 250 feet | Level at 500 feet | Level at 1,000 |
| Equipment | (dBA) | (dBA) | (dBA) | feet (dBA) |
| Clearing and Grading | | | | |
| Grader | 80 to 93 | 66 to 79 | 60 to 73 | 54 to 67 |
| Truck | 83 to 94 | 69 to 80 | 63 to 74 | 57 to 68 |
| Backhoe | 72 to 93 | 58 to 79 | 52 to 73 | 46 to 67 |
| Construction | | | | |
| Concrete Mixer | 74 to 88 | 60 to 74 | 54 to 68 | 48 to 62 |
| Crane | 63 to 88 | 49 to 74 | 43 to 68 | 37 to 62 |
| Paver | 86 to 88 | 72 to 74 | 66 to 88 | 60 to 62 |
| Dozer/Tractor | 60 to 89 | 46 to 75 | 40 to 69 | 34 to 63 |
| Front Loader | 70 to 90 | 56 to 76 | 50 to 70 | 44 to 64 |
| Compressor | 63 to 84 | 49 to 70 | 43 to 64 | 37 to 58 |

Table 3-5 Average Noise Levels for Common Construction Equipment

Sources: USEPA 1971, TRS Audio 2023, FHWA 2007

3.7.3 Environmental Consequences

3.7.3.1 Proposed Action

Short-term, minor, adverse impacts on the ambient noise environment would result from construction noise. The use of heavy construction equipment, such as those identified in **Table 3-5**, would generate intermittent, temporary increases in ambient noise levels during the construction period. Noise from construction would vary depending on the type of equipment being used, the area in which the activity would occur, and the distance of the receptor to the noise source; however, noise levels generated by construction equipment typically exceed ambient levels by 20 to 30 dBA.

The use of exhaust mufflers and other noise-dampening equipment could reduce the sound level by up to 10 dBA (USEPA 1971). Construction noise would occur for the duration of the construction period and would be confined to normal workdays and working hours (i.e., 7 a.m. to 5 p.m.). Noise beyond ambient levels would cease following the construction period. All applicable noise laws and guidelines would be followed to reduce the effects from noise produced by construction.

Individual pieces of equipment would produce noise levels between 60 and 94 dBA at a distance of 50 feet, and between 54 and 88 dBA at a distance of 100 feet (TRS Audio 2023). Construction typically requires several pieces of equipment to be used simultaneously. In general, the addition of a piece of equipment with identical noise levels to another piece of equipment would increase the overall noise environment by 3 dB (USEPA 1971). Therefore, additive noise associated with multiple pieces of construction equipment operating simultaneously would increase the overall noise environment by a few dB over the noisiest equipment. Construction noise levels would mostly be limited to the immediate vicinity of the

Project Area where the primary receptors would be construction workers. Any noise generated would decrease with increasing distance from the construction activities and these noise levels would noticeably attenuate to below 65 dBA between approximately 500 and 1,500 feet from the source.

The Project Area is in a mixed, rural area where ambient noise levels typically do not exceed 65 dBA; however, earthmoving activities at the nearby borrow pit and vehicle traffic along U.S. Highway 277 could introduce noise levels that exceed 65 dBA. Because of the existing ambient noise environment of the Project Area and surrounding areas, minor noise increases would occur from construction and associated truck traffic. Construction equipment would remain at the Project Area during the construction period; therefore, increased noise levels from truck traffic would occur only when construction vehicles are required to enter and exit the Project Areas.

The closest noise sensitive receptors to the Project Area are residences along U.S. Highway 277, approximately 100 feet southwest of the Project Area boundary. Noise levels from construction activities at this distance would be between 54 and 88 dBA. Activities less than 100 feet from sensitive noise receptors (e.g., fence construction) at this noise level would occur quickly and intermittently, would only require one or two pieces of heavy construction equipment, and should only last a few days. Most of the construction would occur further away from the boundary of the Project Area, between 250 and 1,000 feet from the adjacent residences, where noise exposure from construction would be less than 80 dBA. Noise exposure at this distance would be temporary and intermittent.

Construction contractors would adhere to appropriate OSHA standards that would protect the workforce from excessive noise. In addition, workers are recommended to use proper personal hearing protection to limit exposure to high noise levels. To limit noise exposure on sensitive noise receptors, the following BMPs could be implemented:

- Ensuring that all heavy construction equipment includes all factory-equipped noise abatement components such as mufflers, engine enclosures, engine vibration isolators, or other sound dampening supplements.
- Turning off all idling equipment when not in use.
- Maintaining uniform noise levels and avoid impulsive noises.
- Maintaining good relationships with the community, publish/distribute notices before noisy operations occur, and provide the community with frequent updates as to when and where construction activities would occur.
- Limiting construction to normal workdays and working hours (i.e., 7 a.m. to 5 p.m.).

Long-term, minor, adverse impacts on the ambient noise environment would occur from operation and maintenance of the JPC and ancillary support facilities, and from vehicular traffic from the additional 200 personnel. Operational activities and traffic patterns for the JPC would introduce new noise sources to the area. Increased noise levels could result from additional vehicle operations, vehicle maintenance, equipment operation, and kennel activities. Noise levels associated with common types of operational activities equipment are listed in **Table 3-6**.

| Activity or Equipment | Predicted Noise Level at 50 feet (dBA) | Predicted Noise Level at 250 feet (dBA) | Predicted Noise Level at 500 feet (dBA) | Predicted Noise Level at 1,000 feet (dBA) |
|--------------------------|--|---|---|---|
| Generator | 71 to 82 | 57 to 68 | 51 to 62 | 45 to 56 |
| Commercial Truck | 83 to 87 | 69 to 73 | 63 to 67 | 57 to 61 |
| Normal Traffic | 70 to 80 | 56 to 66 | 50 to 60 | 44 to 54 |
| Landscaping | 71 to 85 | 57 to 71 | 51 to 65 | 45 to 59 |
| Dog Barking | 80 o 90 | 66 to 76 | 60 to 70 | 54 to 64 |

| Table 3-6 Av | erage Noise | Levels for | Common | Operations |
|--------------|-------------|------------|--------|------------|
| | 0 | | | 1 |

Sources: USEPA 1981a, USEPA 1971, TRS Audio 2023

Helicopter flights using the proposed helipad and light helicopters would be infrequent and are estimated at 1 flight per week (52 flights per year) with no helicopter stationed at the JPC. Helicopter overflights at 1,000 feet above ground level can generate noise with a sound exposure level of up to 82 dBA (FAA 1977). Sound exposure level, used to measure noise from aircraft, represents the sound level of a single event compressed in a 1-second time interval. The 82 dBA noise environment is similar to the ambient noise environment of a large city (Harris 1998). Noise from these overflights would generate distinct acoustical events that have the potential to periodically, but briefly, annoy individuals directly under the flight path. Additionally, general noise from the operation and maintenance of the JPC could create disruptions that could be observed by people immediately surrounding the Project Area. These disruptions would be temporary and intermittent. Therefore, adverse impacts on the ambient noise environment would be minor.

3.7.3.2 No Action Alternative

Under the No Action Alternative, construction of the JPC and ancillary support facilities would not occur and no noise beyond ambient levels identified in **Section 3.7.2** would result. Therefore, no impacts on noise would be anticipated.

3.8 CULTURAL RESOURCES

3.8.1 Definition of the Resource

The term "cultural resources" refers to a broad range of properties relating to history, prehistory, or places important in traditional religious practices. Several federal laws and EOs, including the NHPA, the Archaeological and Historic Preservation Act, the American Indian Religious Freedom Act, the Archaeological Resources Protection Act, and the Native American Graves Protection and Repatriation Act (NAGPRA) refer to cultural resources.

The NHPA focuses on property types such as pre-contact and historic-age sites, buildings and structures, districts, and other places that have physical evidence of human activity considered important to a culture or a community for scientific, traditional, religious, or other reasons. These resources can prove useful in understanding and describing the cultural practices of past peoples or retain cultural and religious significance to modern groups. Resources judged significant under criteria established in the NHPA are considered eligible for listing in the National Register of Historic Places (NRHP). The NRHP refers to these places as "historic

properties" and they are protected under the NHPA. The NHPA requires federal agencies to consider the effects of their activities and programs on NRHP-eligible properties.

Regulations for Protection of Historic Properties (36 CFR Part 800) present a process for federal agencies to consult with the appropriate State Historic Preservation Officer (SHPO)/Tribal Historic Preservation Officer federally recognized Indian Tribes, other interested parties, and, when appropriate, the Advisory Council on Historic Preservation. This is to ensure that the impacts from the undertaking are adequately considered on historic properties.

In accordance with EO 13175, *Consultation and Coordination with Indian Tribal Governments*, DHS has consulted on a government-to-government basis with federally recognized tribes that have demonstrated an interest in Maverick County, Texas. The following are federally recognized tribes or tribes that have expressed interest in projects in southern Texas: Alabama-Coushatta Tribe of Texas, Apache Tribe of Oklahoma, Camanche Nation (Oklahoma), Kickapoo Tribe of Oklahoma, Kickapoo Traditional Tribe of Texas, Lipan Apache Tribe of Texas, Mescalero Apache Tribe of the Mescalero Reservations (New Mexico), Tonkawa Tribe of Indians of Oklahoma, Wichita and Affiliated Tribes (Wichita, Keechi, Waco, and Tawakonie: Oklahoma), Ysleta del Sur Pueblo, and the Carrizo/Comecrudo Tribe of Texas.

NAGPRA is a federal law passed in 1990 that provides a process for museums and federal agencies to return certain Native American cultural items—human remains, funerary objects, sacred objects, or objects of cultural patrimony—to lineal descendants, and culturally affiliated Native American tribes.

3.8.2 Affected Environment

A cultural resources review and survey was conducted for the 62.76 acres proposed for purchase and construction of the JPC and ancillary support facilities. The Project Area is located approximate 1 mile west of the former Eagle Pass Air Force Station, part of which is currently used as the Maverick County Memorial International Airport.

Prior to a Class III intensive cultural resources survey, an archival records check was performed using the Texas Archeological Sites Atlas, which is maintained by the Texas Historical Commission (THC). Previously conducted archaeological investigations, archaeological sites, NRHP-listed properties, Recorded Texas Historic Landmarks (RTHLs), Official Texas Historical Markers (OTHMs), and Historic Texas Cemeteries (HTCs) were examined by a Secretary of the Interior (SOI)-qualified archaeologist in November 2022 to identify resources recorded within the Area of Potential Effect (APE). The archaeological APE, for resources at or below ground surface, has been defined as the entire 62.76-acre area of land proposed for purchase by DHS. A visual APE, for above ground resources was defined as a 1-mile radius around the 62.76-acre tract and the visual APE was also examined. Information gathered during the investigation was used to identify any resources that could be affected by the Proposed Action. In addition, the information also provided insight into the types of resources that could be encountered during surveys.

No previously conducted archaeological investigations or previously recorded archaeological sites, NRHP-listed properties or districts, RTHLs, OTHMs, or cemeteries were found to be located within 1 mile of the Project Area (THC 2022).

Between December 2022 and January 2023, a full-coverage (100 percent) cultural resources survey of the Project Area was conducted to assess the presence of cultural resources within the archaeological APE (DHS 2023a). The APE was surveyed via equally spaced 30-meter-wide parallel pedestrian transects and 53 shovel test pits (STPs) were excavated. The ground surface along and between transects was examined for evidence of cultural remains and/or modifications. STPs measured 30 centimeters by 30 centimeters and were excavated to the base Holocene-aged deposits where possible. All material was screened through one-quarter-inch mesh and any recovered material was analyzed in the field and returned to the STP prior to backfilling. No STPs were excavated outside of the archaeological APE.

The investigation documented four isolated occurrences (IOs)/artifacts and one isolated feature (IF). The identified IOs consist of four historic age metal trash cans and the IF consists of the remains of a wooden cattle corral. No additional features or artifacts were identified in association with the four IOs that were recorded. Similarly, no artifacts were identified in association with the identified corral. Based on the lack of information potential, and integrity of the remaining feature, neither the IOs nor the IF are considered archaeologically significant and are recommended ineligible for inclusion on the NRHP (DHS 2023a).

Some or all of the Project Area is located within 1,100 acres of the former Eagle Pass Auxiliary Airport (Airfield) which is listed as a Formerly Used Defense Site. The land, ultimately transferred to Maverick County, was previously used by Laughlin Air Force Base as a training site on and off from the 1940s through 1995 when it was deemed excess (LAFB 2009). The original Trap and Skeet Range (or Skeet Range) consisted of 55 acres. Known or suspected munitions associated with the range include only small arms ammunition which are cartridges ranging in size from .22 caliber to 30 millimeters. Cartridges are intended for various types of handheld or mounted weapons including rifles, pistols, revolvers, machine guns, and shotguns (LAFB Phase I 2009).

In association with the above-described Skeet Range, one historic-age site (41MV422) was recorded during the investigation. The site consists of three semi-circular concrete pathways that make up individual skeet fields. Based on the historic records, the identified skeet fields pre-date 1947. The three skeet fields were previously part of a larger skeet range comprised of eight skeet fields.

No artifacts were identified in association with the documented features. Furthermore, the identified skeet field has been heavily disturbed by previous land development. Based on the lack of information potential, and integrity of the remaining features, the site is not considered archaeologically significant and is recommended ineligible for inclusion on the NRHP (DHS 2023a). Through Section 106 consultation with the SHPO, the THC concurred with the results of the cultural investigation and determinations that no historic properties are present or would be affected by the proposed undertaking (THC 2023).

3.8.3 Environmental Consequences

3.8.3.1 Proposed Action

Adverse effects on cultural resources can include physically altering, damaging, or destroying all or part of a resource; altering characteristics of the surrounding environment that contribute to the resource's significance; introducing visual or audible elements that are out of character with the property or that alter its setting. Adverse effects also include neglecting the resource to the extent that it deteriorates or is destroyed or selling, transferring, or leasing the property out of agency ownership (or control) without adequate legally enforceable restrictions or conditions to ensure preservation of the property's historic significance. Ground-disturbing activities associated with the implementation of the Proposed Action constitute the most relevant potential impacts on archaeological resources. Visual effects constitute the most relevant impacts on built environment resources.

Under the Proposed Action, no archaeological sites eligible for the NRHP would be impacted. Through Section 106 consultation with the SHPO, the THC concurred with the results of the cultural investigation and determinations that no historic properties are present or would be affected visually or otherwise by the proposed undertaking within the 1-mile APE (THC 2023).

3.8.3.2 No Action Alternative

Under the No Action Alternative, DHS would not construct the JPC and ancillary support facilities and CBP would continue to use the existing SSF. Cultural resources would remain as described in **Section 3.8.2**.

3.9 UTILITIES AND INFRASTRUCTURE

3.9.1 Definition of the Resource

Infrastructure consists of the interrelated systems and physical structures that enable a population in a specified area to function. The infrastructure components to be discussed in this section include utilities and solid waste management. Utilities generally include electrical supply, natural gas supply, water supply, sanitary sewer and wastewater, communications systems, and stormwater drainage infrastructure. Solid waste management primarily relates to the availability of landfills to support a population's residential, commercial, and industrial needs.

3.9.2 Affected Environment

Electrical Supply. The existing SSF is not connected to a local electrical supplier and uses temporary generators to provide power for the facility. Electricity for the JPC would be supplied by Rio Grande Electric Cooperative (Co-op). The Co-op serves 18 counties in Texas and 2 counties in New Mexico and maintains 126 miles of transmission line, 201 miles of underground line, and 9,695 miles of overhead line (RCEG 2023). Overhead electrical lines are present north of State Highway 131 and west of U.S. Highway 277.
Natural Gas Supply. The existing SSF is not connected to a local natural gas supplier and uses temporary generators to provide heat for the facility. Natural gas would be supplied to the JPC by Texas State Natural Gas, Inc. and would be the source of heat for the proposed JPC.

Water Supply. Potable water is supplied to the existing SSF by the Maverick County Airport Water Works (TCEQ 2023). Additionally, as noted in **Table 1-1**, a permit for an on-site domestic water supply well may be obtained to accommodate operations of the JPC, if necessary.

Sanitary Sewer and Wastewater. The existing SSF is not connected to a public sanitary sewer and wastewater system. Instead, wastewater is pumped and transported to an off-site facility. Although several sewage disposal ponds are located south of Fire Fly Lane near the Project Area; these ponds would not have the capacity to handle the wastewater produced at the JPC. As noted in **Table 1-1**, a permit for an on-site wastewater treatment system would be obtained. It is anticipated that the on-site wastewater treatment system for the JPC would consist of a septic system and leach field or a worm farm.

Stormwater Drainage. There is no permanent stormwater infrastructure in place at the Project Area. As noted in **Section 2.3**, a stormwater management system would be included as an ancillary support facility for the JPC.

Communications System. Communications connections are available at the Project Area and include a 140 feet tower with an additional 10 feet for a lightning rod. The tower base would be embedded directly into the ground and no guy wires would be needed. Spectrum provides internet, telephone, and television services within Maverick County, to include the Project Area (Spectrum 2023).

Solid Waste Management. Solid Waste for the Project Area is managed by the city of Eagle Pass. The closest landfill to the Project Area is the Eagle Pass Type IV Landfill, which is just north of State Highway 131. A Type IV landfill can accept no more than 20 tons of waste per day (City of Eagle Pass 2023a).

3.9.3 Environmental Consequences

Effects on infrastructure are evaluated for their potential to disrupt or improve existing levels of service and create additional needs for electricity, water, sanitary sewer and wastewater service, stormwater drainage, and solid waste management.

3.9.3.1 Proposed Action

Electrical Supply. Short- and long-term, negligible to minor, adverse impacts on the electrical supply infrastructure would occur. Temporary, minor electrical service interruptions could occur during construction when electrical service is connected to the proposed JPC and ancillary support facilities. Operation of the proposed JPC would result in an increase in electrical demand in the area; however, this increase would be offset by the reduction in electrical use associated with the inefficient SSF, which is powered by the use of generators. Additionally, energy-saving sustainable design features would help reduce potential increases in electrical demand from the proposed JPC and ancillary support facilities. The overall net increase in electrical demand would not be expected to exceed electrical supply capacity. Onsite emergency

backup generators would provide a backup power source for the proposed JPC. Alternative energy sources may be used, including solar with battery backup.

Natural Gas Supply. Short- and long-term, negligible to minor, adverse impacts on natural gas supply infrastructure would occur. Temporary, minor natural gas service interruptions could occur during construction when natural gas service is connected to the JPC. Operation of the JPC would result in an increase in natural gas demand in the area. The overall net increase in natural gas demand would not be expected to exceed natural gas supply capacity. Natural gas would primarily be used for heating the proposed JPC. With the use of sustainable design features, natural gas usage for the JPC would be highly efficient when compared to the current usage of the SSF, which is powered by generators as a source of electricity and heat for the facility.

Water Supply. Short- and long-term, negligible to minor, adverse impacts on water supply infrastructure would occur. Temporary, minor service interruptions to the existing SSF could occur during construction as well as when potable water service is connected to the proposed JPC. A potable water well could be required to support operations of the proposed JPC. Under the Proposed Action, a domestic water supply permit and a water well permit would be obtained from TCEQ. The domestic water supply permit would be applicable for a non-transient, non-community water system. During operation, with the use of water-efficient design features, the annual potable water demand needed to accommodate the 200-support staff and 500 undocumented noncitizens is anticipated to be approximately 17,500 gallons per day or approximately 6.4 million gallons per year, which is approximately 6 percent of the utility's annual water use in 2021 (TWDB 2023c). As discussed in **Section 3.5.3**, this is less than 0.0001 percent of the annual water supply provided by the Rio Grande (TWDB 2022). If determined necessary, the potable water well would be designed and appropriately sized to accommodate the 200 support and 500 undocumented noncitizens.

Sanitary Sewer and Wastewater. Short- and long-term, negligible to minor, adverse impacts on the sanitary sewer and wastewater infrastructure would occur. Approximately 200,000 gallons of waste water would be generated per month. Although several sewage disposal ponds are located south of Fire Fly Lane near the Project Area, these ponds would not have the capacity to handle the wastewater produced at the proposed JPC. Therefore, an on-site wastewater treatment system consisting of a septic system and leach field, or a vermifiltration system would be installed. A vermifiltration system consists of treatment beds through which wastewater passes by gravity that can remove up to 99% of contaminants from wastewater. The treatment uses earthworms and microbial bacteria, wood shavings, and river cobble. Solids would be separated out prior to entering the system and collected, hauled, and disposed of separately. Design and installation of the wastewater treatment system would be appropriately sized to accommodate the 200-support staff and 500 undocumented noncitizens use per day. Additionally, a permit to construct the on-site wastewater treatment system would be obtained from TCEQ.

Stormwater Drainage. Short- and long-term, negligible to minor, adverse impacts on stormwater drainage would occur. During construction, ground disturbance would disturb natural stormwater drainage features and temporarily increase the potential for soil erosion and sediment transport during rain events. Soil erosion and sediment production would be

minimized by preparing and implementing a SWPPP and complying with EISA Section 438, which requires that pre-development hydrology is maintained to prevent any net increase in stormwater runoff.

Construction of the JPC would result in the addition of approximately 31.5 acres of new impervious surface, which would decrease the amount of area available for stormwater to permeate into the ground. This increase in impervious surface would intensify stormwater runoff rates in the immediate vicinity of the proposed JPC. Adequate stormwater infrastructure would be included in the design of the new JPC. The stormwater management system, including stormwater ponds for collection of overflows, would include appropriate long-term control measures and stormwater runoff control techniques to comply with EISA Section 438 to reduce, limit, and control stormwater runoff to preconstruction rates.

Additionally, any native and non-native vegetation disturbed during construction in undeveloped areas would be restored with native vegetation. Restoring native vegetation would aid in the prevention of soil erosion and reduce runoff rates minimizing impacts on off-site areas.

Communications System. Short- and long-term, negligible, adverse impacts on the communications system would occur. Communications connections are available at the Project Area and include a 140 feet tower with an additional 10 feet for a lightning rod. The tower base would be embedded directly into the ground and no guy wires will be needed. Temporary, minor service interruptions to the existing SSF could occur during construction as well as when communications system service is connected to the proposed JPC. During operation, it is anticipated that the slight increase in demand for communications services would result in a corresponding reduction in available bandwidth. It is assumed that the DHS would design the communications system to ensure that the new tower and communications infrastructure would not interfere with adjacent communications systems.

Solid Waste Management. Short- and long-term, minor, adverse impacts on solid waste management would occur. Construction would generate approximately 868,000 pounds (434 tons) of solid waste (see **Table 3-7**). However, construction debris would consist primarily of recyclable and reusable building materials such as concrete and metals (e.g., conduit, piping, and wiring). All materials that could be recycled or reused would be diverted from landfills whenever possible, reducing the amount of waste disposed. Site-generated scrap materials would be separated and recycled. Clean fill material, ground-up asphalt, and broken-up cement would be diverted from the landfill and reused whenever possible.

| Activity | Total ft ² | Multipliers | Pounds | Tons |
|------------------------------|-----------------------|--------------|---------|------|
| | | (pounds/ft²) | | |
| Proposed JPC | 200,000 | 4.34 | 868,000 | 434 |
| Ancillary Support Facilities | | 4.34 | | |
| Pavement Construction | | 1 | | |
| Roadway | | 1 | | |
| | | Total | 868,000 | 434 |

Source: USEPA 2009.

During operation, an increase of solid waste from the additional personnel, both staff and undocumented noncitizens is expected; approximately 480 cubic yards of solid waste would be hauled off site weekly. However, it would not be expected to exceed the current capacity of the solid waste management system managed by the city of Eagle Pass. Additionally, DHS would continue to implement a recycling program to divert waste from landfills through reuse and recycling.

3.9.3.2 No Action Alternative

Under the No Action Alternative, the proposed infrastructure would not be constructed, and the existing conditions discussed in **Section 3.9.2** would remain unchanged. The No Action Alternative would result in continued adverse impacts on the electrical and natural gas supply systems from the continued operation of the inefficient SSF.

3.10 ROADWAYS AND TRAFFIC

3.10.1 Definition of the Resource

The roadways and traffic resource are defined as the system of roadways and highways that are in the vicinity of a proposed project location and could reasonably be affected by a Proposed Action. Traffic relates to changes in the number of vehicles on roadways and highways as a result of a Proposed Action.

3.10.2 Affected Environment

U.S. Highway 277 is the main north-south route and State Highway 131 is the main east-west route in Eagle Pass, Texas. The Project Area is bordered by State Highway 131 to the north, U.S. Highway 277 to the west, Firefly Lane to the south, and Monarch Path to the southeast. Average Annual Daily Traffic counts for U.S. Highway 277 show an average of approximately 5,296 vehicles at the checkpoint nearest the proposed project location in 2021 (TXDOT 2022).

3.10.3 Environmental Consequences

Impacts on transportation are evaluated by how well existing roadways can accommodate changes in traffic. Adverse impacts would occur if drivers experienced high delays because the Proposed Action altered traffic patterns beyond existing lane capacity.

3.10.3.1 Proposed Action

Short- and long-term, minor, adverse impacts would occur. During construction, temporary increases in daily and peak hour traffic levels within the vicinity of the proposed JPC due to the hauling of material and debris, construction equipment, and construction worker commutes to and from the Project Area. During operations, adverse impacts would include increased traffic and slightly more roadway deterioration compared to current rates. As part of the Proposed Action, 200 support staff would be traveling to work at the proposed JPC resulting in an increase of traffic from personally owned vehicles of staff members during shift changes. Under the Proposed Action, the JPC is anticipated to have the capacity to process 500 undocumented

noncitizens per day. This would require additional buses, vans, and other modes of transportation to bring undocumented noncitizens to the JPC each day. The volume and type of traffic related to those types of vehicles is dependent on migrant activities. Although the Proposed Action would have minor adverse impacts, the changes in traffic levels associated with the proposed JPC would not be expected to exceed current capacity.

3.10.3.2 No Action Alternative

Under the No Action Alternative, the proposed JPC would not be constructed, therefore no changes to roadways and traffic would occur.

3.11 HAZARDOUS MATERIALS AND WASTES

3.11.1 Definition of the Resource

Hazardous Materials, Hazardous Wastes, and Petroleum Products. Hazardous materials are defined by 49 CFR § 171.8 as hazardous substances, hazardous wastes, marine pollutants, elevated temperature materials, materials designated as hazardous in the Hazardous Materials Table (49 CFR § 172.101), and materials that meet the defining criteria for hazard classes and divisions in 49 CFR Part 173. Hazardous wastes are defined by the Resource Conservation and Recovery Act at 42 U.S.C. § 6903(5), as amended by the Hazardous and Solid Waste Amendments, as:

a solid waste, or combination of solid wastes, which because of its quantity, concentration, or physical, chemical, or infectious characteristics may (A) cause, or significantly contribute to an increase in mortality or an increase in serious irreversible, or incapacitating, reversible illness; or (B) pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, or disposed of, or otherwise managed.

Petroleum products include crude oil or any derivative thereof, such as gasoline, diesel, or propane. They are considered hazardous materials because they present health hazards to users in the event of incidental releases or extended exposure to their vapors.

Evaluation of hazardous materials and wastes focuses on the storage, transportation, handling, and use of hazardous materials, as well as the generation, storage, transportation, handling, and disposal of hazardous wastes. In addition to being a threat to humans, the improper release or storage of hazardous materials, hazardous wastes, and petroleum products can threaten the health and well-being of wildlife species, habitats, soil systems, and water resources.

Special Hazards. Special hazards are substances that might pose a risk to human health and are addressed separately from hazardous materials and hazardous wastes. Special hazards include asbestos-containing materials (ACMs), lead-based paint (LBP), and polychlorinated biphenyls (PCBs), all of which are typically found in buildings and utilities infrastructure.

Asbestos is regulated by USEPA under the CAA; Toxic Substances Control Act; and Comprehensive Environmental Response, Compensation, and Liability Act. The USEPA has established that any material containing more than 1 percent asbestos by weight is considered an ACM. ACMs are generally found in building materials such as floor tiles, mastic, roofing materials, pipe wrap, and wall plaster. USEPA has implemented several bans on various ACMs between 1973 and 1990, so ACMs are most likely in older buildings (i.e., constructed before 1990). LBP was commonly used prior to its ban in 1978; therefore, buildings constructed prior to 1978 could contain LBP. PCBs are man-made chemicals that persist in the environment and were widely used in building materials (e.g., caulk) and electrical products prior to 1979. Structures constructed prior to 1979 potentially include PCB-containing building materials.

Environmental Contamination. Environmental contamination sites are also considered during the evaluation of hazardous materials and wastes through the environmental due diligence process. A site-specific Phase I Environmental Site Assessment is an excellent method for performing a comprehensive investigation of environmental contamination threats on a specific property.

Radon. Radon is a naturally occurring odorless and colorless radioactive gas found in soils and rocks that can lead to the development of lung cancer. Radon tends to accumulate in enclosed spaces, usually those that are below ground and poorly ventilated (e.g., basements). USEPA established a guidance radon level of 4 picocuries per liter (pCi/L) in indoor air for residences, and radon levels above this amount are considered a health risk to occupants.

3.11.2 Affected Environment

Hazardous Materials, Hazardous Wastes, and Petroleum Products. DHS completed a Phase I Environmental Site Assessment of the Project Area in March 2023 to support DHS's purchase of the Project Area. The Phase I Environmental Site Assessment did not identify any hazardous materials, hazardous wastes, or petroleum products on the northern portion of the Project Area (DHS 2023b). A small fueling area with two ASTs with secondary containment and eight 55-gallon drums of antifreeze and motor oil were observed at the SSF. The drums were in new condition and stored on pallets. A dumpster for used-oil filters and a pallet of spent batteries were also observed in this area. These SSF items were in good condition and being managed by CBP. Based on visual observations and review of pertinent records, no records of an environmental release were obtained, and no signs of spillage or leakage were observed for the SSF (DHS 2023b).

Special Hazards. The Project Area does not contain any permanent structures; therefore, ACMs, LBP, and PCBs in building materials do not exist in the Project Area. The SSF, which is a canvas structure that was recently constructed on the southern portion of the property, is not a permanent structure and is not likely to contain special hazards. The Phase I Environmental Site Assessment did not identify electrical transformers or other electrical equipment potentially containing PCBs (DHS 2023b).

Environmental Contamination. The Phase I Environmental Site Assessment identified the presence of a historical shooting (skeet) range within the eastern portion of the Project Area, east of the SSF and north of the adjacent WTP (see **Figure 3-5**). Lead shot and bullets from shooting ranges have been known to leach into subsurface soils and groundwater. In addition, exposure could occur through lead-bearing dust, which also could affect air quality and surficial soil outside the historical skeet range footprint. Lead shot and bullets primarily contain lead;

however, they also contain trace quantities of antimony, arsenic, and could contain copper or nickel. A shallow subsurface investigation (i.e., a Phase II Environmental Site Assessment) of the range and surrounding areas for the presence of elevated concentrations of metals was recommended in the Phase I Environmental Site Assessment (DHS 2023b).

Fieldwork for a Phase II Environmental Site Assessment was performed in February and March 2023 focusing on the 2-acre area where the historical shooting (skeet) range was located; the downstream/runoff areas from the skeet range; the approximately 12 acres where illegal dumping and slag, dirt piles, and borrow pits were observed; and on any dirt or other material piles of unknown origin. Fieldwork consisted of drilling 40 borings for soil samples, to include background, at 5- and 10-foot intervals, and drilling at 10 locations for groundwater sampling. Temporary monitoring wells were installed at the six locations where groundwater was encountered between 30 and 50 feet bgs. All samples were analyzed for VOCs, semi-volatile organic compounds (SVOCs), total metals, pesticides, and PCBs.

Analytical results were compared to TCEQ Tier 1 soil and groundwater residential and commercial/industrial Protective Concentration Levels (PCLs) or USEPA Regional Screening Levels where a TCEQ screening level was not available. Metal concentrations did not exceed TCEQ Tier 1 residential and commercial/industrial PCLs in any of the soil or groundwater samples. Most of the soil sample results were below TCEQ or USEPA screening levels; however, at three locations covering approximately 4 acres within the area of the former skeet range (see **Figure 3-5**), SVOCs and polycyclic aromatic hydrocarbons (PAH), a type of SVOC, were detected at concentrations above residential and industrial TCEQ PCLs in soil samples. No other exceedances of TCEQ or USEPA screening levels occurred in the groundwater or remaining soil samples.

Clay pigeons used as targets for skeet shooting are made using pitch as a binder. Pitch contains very high levels of PAHs. Two of the soil samples with PAH concentrations exceeding TCEQ PCLs were collected at 5 feet bgs within the historical shooting (skeet) range and one composite soil sample was from an aboveground soil pile near the northern edge of the former skeet range (see **Figure 3-5**). Two samples collected at 10 feet bgs within the former skeet range did not contain PAH concentrations that exceeded TCEQ PCLs. Hot spot remediation (i.e., soil excavation) in the vicinity of the three soil sample locations with PAH concentration exceedances were recommended. Additional samples to delineate the extent of the PAH contamination was recommended in the Phase II Environmental Site Assessment with plans currently underway to define and characterize any contaminated area (DHS 2023c).

Radon. USEPA rates Maverick County, Texas, as Radon Zone 3. Counties in Zone 3 have a predicted average indoor radon screening level less than 2 pCi/L, which is below the USEPA established guidance radon level of 4 pCi/L (DHS 2023b).



Figure 3-5 Location of the Historical Shooting (Skeet) Range

3.11.3 Environmental Consequences

3.11.3.1 Proposed Action

The Proposed Action would result in short-term, negligible to minor, adverse and long-term, negligible, adverse impacts on hazardous materials and wastes management.

Hazardous Materials, Hazardous Wastes, and Petroleum Products. Short-term, minor, adverse impacts would occur from the use of hazardous materials and petroleum products and the generation of hazardous wastes during construction of the proposed JPC. Hazardous materials that could be used include paints, welding gases, solvents, preservatives, and sealants. Additionally, hydraulic fluids and petroleum products, such as diesel and gasoline, would be used in the vehicles and equipment supporting construction. Construction would generate negligible quantities of hazardous wastes. Implementation of BMPs and environmental protection measures would reduce the potential for an accidental release of these materials. Contractors would be responsible for the disposal of hazardous wastes in accordance with federal and state laws. All hazardous materials, petroleum products, and hazardous wastes used or generated during construction would be contained and stored appropriately (e.g., secondary containment, inspections, spill kits) in accordance with applicable regulations to minimize the potential for releases. Contractors would be required to develop and implement their own SPCC Plan. All construction equipment would be maintained according to the manufacturer's specifications and drip mats would be placed under parked equipment as needed.

Long-term, negligible, adverse impacts would occur from the use of hazardous materials and petroleum products and the generation of hazardous wastes during the operation and maintenance of the proposed JPC. Operation and maintenance activities that could use or generate hazardous materials, hazardous wastes, and petroleum products include vehicle and equipment maintenance and fueling, pesticide applications, building heating, and emergency power generation. Each of these activities could result in the accidental release of hazardous materials, hazardous wastes, or petroleum products. However, operation and maintenance activities of the JPC would not appreciably change management practices of hazardous materials, hazardous wastes, and petroleum products when compared to those of the existing SSF. For example, slightly larger but similar types and amounts of hazardous materials, hazardous wastes, and petroleum products would be stored, used, and generated at the JPC as compared to the existing SSF.

It is assumed that the ASTs, 55-gallon drums, dumpster of used oil filters, and pallet of spent batteries and associated secondary containment observed near the SSF during the Phase I Environmental Site Assessment would either be removed or relocated to the proposed JPC once constructed. If necessary, pesticides would continue to be applied by certified personnel in accordance with the manufacturer's recommendations. Additionally, all hazardous materials, hazardous wastes, and petroleum products would be contained and stored appropriately (e.g., secondary containment, inspections, spill kits) in accordance with applicable regulations to minimize the potential for releases. Spill prevention infrastructure would guard against incidental releases during vehicle and equipment maintenance and fueling activities. DHS would develop and implement an SPCC Plan for the proposed JPC. Gasoline and diesel for DHS equipment and vehicles would be stored in ASTs at the fuel island. These storage tanks would be inspected regularly to ensure they are operating properly and meet all applicable regulatory standards. The gasoline and diesel storage tanks would be doublewalled and include leak detection infrastructure. In the event of a leak or spill, all procedures outlined in the SPCC Plan would be followed.

Operation and maintenance of the new infrastructure would result in long-term, negligible, adverse impacts. Negligible amounts of hazardous materials such as paints, adhesives, solvents, and cleansers would be used during operation and maintenance of the new infrastructure.

Special Hazards. No impacts from special hazards would occur. The Project Area does not contain ACMs, LBP, or PCBs; therefore, they would not need to be removed prior to or during construction of the proposed JPC. Federal policy prohibits the use of ACMs for new construction when asbestos-free materials exist, and federal law prohibits the use of LBP and PCBs in most construction applications. Therefore, neither construction workers nor building occupants would be exposed to these special hazards at the proposed JPC.

Environmental Contamination. Short-term, negligible to minor, adverse impacts could occur. The approximate 4-acre area within the historical shooting (skeet) range with PAH-contaminated soil could be capped, use restricted, and/or the soil could be properly removed and disposed of in order to meet or exceed residential and industrial TCEQ PCLs. BMPs would be implemented to reduce or avoid impacts. Should ground-disturbing activities be anticipated in the location of the historical shooting (skeet) range (see **Figure 3-5**), a health and safety plan would be prepared in accordance with OSHA regulations, and confirmatory sampling and removal of PAH-contaminated soil would be conducted by a certified remediation contractor and disposed of in accordance with federal, state, and local regulations prior to construction activities occurring in this area. Long-term, negligible, beneficial impacts would occur from the removal of PAH-contaminated soil and the elimination of potential for human exposure.

Should unknown, potential environmental contamination be discovered or unearthed during construction activities, construction contractors would immediately cease work, contact appropriate personnel, and await sampling and analysis results before taking any further action. Any unknown wastes determined to be hazardous would be managed or disposed of in accordance with applicable laws and regulations.

Radon. No impacts from radon would occur. Based on the USEPA rating of Radon Zone 3 for Maverick County, it is unlikely indoor radon screening levels greater than 2 pCi/L would be identified in new construction. The JPC would incorporate design features for radon management as determined to be needed. Post-construction radon management measures would be installed in the unlikely event radon was tested at 4 pCi/L or higher.

3.11.3.2 No Action Alternative

Under the No Action Alternative, the proposed infrastructure would not be constructed, and the existing conditions discussed in **Section 3.11.2** would remain unchanged.

3.12 SOCIOECONOMIC RESOURCES, ENVIRONMENTAL JUSTICE, AND PROTECTION OF CHILDREN

3.12.1 Definition of the Resource

EO 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, directs agencies to identify and address the environmental effects of their actions on minority populations and low-income populations. The EO was enacted to ensure the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with the respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. CEQ defines that minority populations exist if (a) the minority population of the affected area exceeds 50 percent or (b) the minority population percentage in the general population or other appropriate unit of geographic analysis (EO 12898 [1994]).

EO 13045, *Protection of Children from Environmental Health Risks and Safety Risks*, states that each Federal agency "(a) shall make it a high priority to identify and assess environmental health risks and safety risks that may disproportionately affect children; and (b) shall ensure that its policies, programs, activities, and standards address disproportionate risks to children that result from environmental health risks or safety risks." Children might be more susceptible than adults to certain environmental effects and risks. Therefore, activities occurring near areas that could have higher concentrations of children during any given time, such as schools and childcare facilities, might further intensify potential impacts on children.

Considerations of concerns related to environmental justice and protection of children include race, ethnicity, and the poverty status of populations in the vicinity of a Proposed Action.

Socioeconomics is defined as the basic attributes and resources associated with the human environment, particularly characteristics of population and economic activity. Regional birth and death rates and immigration and emigration affect population levels. Economic activity typically encompasses employment, personal income, and industrial or commercial growth. Changes in these fundamental socioeconomic indicators typically result in changes to additional socioeconomic indicators, such as housing availability and the provision of public services. Socioeconomic data at local, county, regional, and state levels permit characterization of baseline conditions in the context of regional and state trends.

Demographics and employment characteristics data provide key insights into socioeconomic conditions that might be affected by a Proposed Action. Demographics identify the population levels and the changes in population levels of a region over time. Data on employment characteristics identify gross numbers of employees (more than 16 years old and in the labor force), employment by industry, and unemployment trends. Data on personal income in a region can be used to compare the "before" and "after" effects of any jobs created or lost as a result of a Proposed Action. Data on industrial or commercial growth or growth in other sectors of the economy provide baseline and trend line information about the economic health of a region.

Socioeconomic data shown in this section are presented at census tract(s), county, and state levels to characterize baseline socioeconomic conditions in the context of regional and state trends.

3.12.2 Affected Environment

For the purposes of this socioeconomic analysis, three different spatial levels are used, as follows:

- The region of influence (ROI) of an individual census tract that encompasses the entire 62.76-acres;
- City of Eagle Pass, Texas;
- Maverick County, Texas; and
- State of Texas.

The ROI is comprised of one census tract that encompasses the entire area of the Proposed Action. The ROI is within Maverick County, Texas, approximately 11 miles northeast of downtown Eagle Pass. This area was evaluated because most of the construction workers and supplies for the Proposed Action would likely come from those nearest residential and developed areas.

The ROI best illustrates socioeconomic characteristics for where the most impacts from the Proposed Action would be expected because it encompasses the specific population associated with the proposed JPC area. Additionally, all the proposed construction would occur in this area. For the purpose of this analysis, the socioeconomic baseline conditions are presented for Census Tract 9507.02 (the ROI), the city of Eagle Pass, Maverick County, and the state of Texas (see **Tables 3-8** and **3-9**).

| Location | 2010 Population | 2020 Population | 2015 to 2020 Percent Change |
|--------------------|-----------------|-----------------|--------------------------------|
| ROI | Not available | 6,078 | - |
| City of Eagle Pass | 26,248 | 28,130 | +7.1% |
| Maverick County | 54,258 | 57,887 | +6.8% |
| Texas | 25,145,561 | 29,145,505 | +15.9% |

Table 3-8 2015 and 2020 Total Population in the Region of Influence

Source: USCB 2023a, 2023b, 2023c.

| Table 3-9 2021 Demographics in the City of Eagle Pass, Maverick County, and the State of |
|--|
| Texas |

| Categories | ROI | City of Eagle Pass | Maverick County | Texas |
|--|------------------|-----------------------|--------------------|------------|
| Population 16 years and Older | 4,446 | 21,197 | 41,719 | 22,261,181 |
| Median Household Income (dollars) | \$86,116 | \$45,938 | \$44,502 | \$66,963 |
| Unemployment Rate | Not available | 7.1% | 7.0% | 5.4% |
| Poverty Rate | Not available | 25.8% | 20.5% | 14.2% |
| Emple | oyment by In | dustry | | |
| Agriculture, forestry, fishing and hunting, and mining | 16.9% | 5.4% | 8.2% | 2.8% |
| Construction | 2.1% | 7.4% | 5.8% | 8.7% |
| Manufacturing | 1.0% | 2.4% | 3.4% | 8.5% |
| Wholesale trade | 0.0% | 2.8% | 1.9% | 2.7% |
| Retail trade | 6.0% | 10.9% | 10.5% | 11.1% |
| Employment by Industry (continued) | | | | |
| Employmen | t by Industry | y (continued) | | |
| Transportation and warehousing, and utilities | 15.1% | 7.6% | 10.2% | 6.2% |
| Information | 0.0% | 1.7% | 1.2% | 1.6% |
| Finance and insurance, and real estate and rental and leasing | 9.1% | 4.3% | 3.6% | 6.8% |
| Professional, scientific, and management, and administrative and waste management services | 4.1% | 3.1% | 2.8% | 11.9% |
| Educational services, and health care and social assistance | 21.1% | 28.1% | 27.0% | 21.7% |
| Arts, entertainment, and recreation, and accommodation and food services | 14.6% | 11.0% | 13.0% | 8.8% |
| Other services, except public administration | 0.8% | 2.2% | 2.0% | 5.0% |
| Public administration | 9.2% | 13.2% | 10.4% | 4.1% |

Source: USCB 2023.

Socioeconomics

Demographics. The city of Eagle Pass, Maverick County, and the state of Texas all had an increase in total population between 2010 and 2020. The Project Area is in the city of Eagle Pass in Maverick County, Texas. The city of Eagle Pass is the county seat of Maverick County. Approximately 48.6 percent of residents living in Maverick County live in the city of Eagle Pass. The city of Eagle Pass has experienced a 7.1 percent population growth since 2010 and Maverick County has experienced a 6.8 percent population growth. Population data prior to 2020 for the ROI (Census Tract 9507.02) is unavailable (USCB 2023a, 2023b, 2023c).

Minority populations are those persons who identify themselves as Black, Hispanic, Asian American, American Indian/Alaskan Native, Pacific Islander, or Other. A potential disproportionate impact could occur when the percent minority in the study area exceeds 50 percent and/or the percent low-income exceeds 20 percent of the population. Most of the population identifies as Hispanic or Latino in the ROI (94.6 percent), city of Eagle Pass (96.7 percent) and Maverick County (95.1 percent) compared to the statewide Hispanic or Latino population of 40.2 percent (USCB 2023a, 2023b, 2023c, 2023d).

Employment and Economic Activity. The 2021 American Community Survey data shows the unemployment rate within the city of Eagle Pass (7.1 percent) and Maverick County (7.0 percent) was higher compared to the state of Texas (5.4 percent). Poverty rate data for the ROI was not available. The median household income in the city of Eagle Pass (\$45,938) and Maverick County (\$44,502) is less than the state of Texas (\$66,963). However, the median income in the ROI was higher (\$86,116) than all other spatial levels compared. As of 2021, the industry category that employed the lowest percentage of the workforce population for all spatial levels was identified as "Information." The Educational services, and health care and social assistance industry, were the most common employers for all spatial levels (USCB 2023a, 2023b, 2023c, 2023d).

Poverty status is used to define low-income. Poverty is defined as the number of people with income below poverty level, which was \$30,000 for a family of four in 2023 (HHS 2023). The poverty rate in the city of Eagle Pass is 25.8 percent and in Maverick County is 20.5 percent, which is higher than the United States poverty rate of 12.6 percent (USCB 2023a, 2023b, 2023c). Poverty rate data for the ROI was not available.

Public Services. Public services include fire protection, emergency medical services, law enforcement, schools, libraries, and parks. The Project Area is in a low-population density area and there are no police or fire stations, medical facilities, schools, or community parks in the immediate vicinity. However, two government buildings are adjacent to the Project Area. The Maverick County Emergency Operations Center is to the northwest and the Maverick County Water Control Office is to the east. The Maverick County Memorial International Airport is also east of the Project Area.

Environmental Justice and the Protection of Children

To assess environmental justice impact on the local community, the USEPA Environmental Justice Screening and Mapping Tool (EJScreen) and the CEQ Climate and Economic Justice Screening Tool were utilized. EJScreen provides demographic socioeconomic and environmental information for a selected area. The Climate and Economic Justice Screening tool identifies disadvantaged (overburdened and underserved) areas using demographic and environmental indicators.

EJScreen identified the following environmental justice indicators as outlined in **Table 3-10**. The Environmental Justice Index indicators combines data on low income and people of color populations with a single environmental indicator (USEPA 2023c).

| Environmental Justice Indexes | Percentile in | Percentile in USA |
|---|---------------|-------------------|
| | Texas | |
| Particulate Matter 2.5 EJ Index | 30 | 79 |
| Ozone Environmental Justice Index | 79 | 71 |
| Diesel Particulate Matter Environmental Justice Index | 3 | 8 |
| Air Toxics Cancer Risk Environmental Justice Index | 77 | 87 |
| Air Toxics Respiratory Environmental Justice Index | 54 | 72 |
| Traffic Proximity Environmental Justice Index | 42 | 58 |
| Lead Paint Environmental Justice Index | 77 | 73 |
| Superfund Proximity Environmental Justice Index | 5 | 4 |
| Risk Management Program Facility Proximity Environmental Justice Index | 3 | 13 |
| Hazardous Waste Proximity Environmental Justice Index | 26 | 27 |
| Underground Storage Tanks Environmental Justice Index | 27 | 55 |
| Wastewater Discharge Environmental Justice Index | 17 | 43 |

The Climate and Economic Justice Screening Tool identified the ROI as disadvantaged because it meets more than one burden threshold and the associated socioeconomic threshold. There is the presence of both an abandoned land mine and a Formerly Used Defense Site. The ROI was also above the 90th percentile threshold for linguistic isolation (share of households where no one over age 14 speaks English very well) and above the 10th percentile threshold for high school education (percent of people ages 25 years or older whose high school education is less than a high school diploma). The ROI is considered low income (low-income people in households where income is less than or equal to twice the federal poverty level, not including students enrolled in higher education) as it is above the 65th percentile threshold (CEQ 2023b).

3.12.3 Environmental Consequences

Impacts on socioeconomics, environmental justice, and protection of children were assessed to determine whether the Proposed Action and alternatives could result in any of the following major, adverse impacts:

- Substantial change in the local or regional population and in housing or public services from the increased or decreased demands of the population change;
- Substantial change in the local or regional economy, employment, or business volume; and
- Disproportionately high and adverse human health and environmental impacts on minority, low-income, or child populations.

3.12.3.1 Proposed Action

Socioeconomics

The Proposed Action would not result in major impacts on socioeconomics and is not anticipated to result in short- or long-term population increases. However, the Proposed Action, could result

in long-term, minor, adverse impacts on public services (fire protection/emergency medical services and would result in short-term, minor, beneficial impacts on the local economy and employment.

Demographics. The construction workforce for the Proposed Action would likely come from the existing workforce within Maverick County and adjacent counties. There are 854 construction workers, in the city of Eagle Pass and 1,287 in Maverick County, which collectively should be adequate to meet the construction demands of the proposed JPC. Additionally, the proposed construction activities should not necessitate out-of-town workers to permanently relocate to the area. Therefore, short- and long-term population increases would not occur as a result of construction activities, and there would be no impacts on population or housing.

The proposed JPC is designed to accommodate 200 support staff, and over time, additional DHS personnel may be hired as needed. Relocation of existing DHS staff for operation of the proposed JPC is assumed to be negligible. In the event DHS increases the personnel at the JPC, impacts would be long-term, indirect, negligible, and beneficial.

Substantial population increases during construction would not be expected to occur because construction workers and most JPC support staff would likely be existing residents. No long-term impacts on social conditions, including property values, school enrollment, county or municipal expenditures, or crime rates due to population increases would be anticipated during construction.

Employment and Economic Activity. The Proposed Action would result in the employment of construction workers and the purchase of construction-related materials and other goods and services (e.g., purchase of building materials), as well as secondary purchases such as retail purchases made by workers. Construction workers from Maverick County or surrounding areas would be employed, resulting in beneficial impacts on local employment. Construction expenditures for building materials, construction workers' wages and taxes, and purchases of goods and services in the area would result in short-term, direct and indirect, minor, beneficial impacts on the local economy and employment.

Operation and maintenance actions are expected to result in minimal purchases of maintenance supplies and secondary purchases of goods and services by DHS personnel in the local economy. In the event DHS increases personnel at the proposed JPC, there could be indirect, beneficial impacts, as any additional personnel would increase the tax revenue. The Proposed Action would result in long-term, direct and indirect, negligible, beneficial impacts on the local economy.

Public Services. No anticipated long-term population increases would occur as a result of the Proposed Action. Therefore, demand on schools, libraries, and parks and recreational facilities in Maverick County would not change and these public services would not be affected because the existing capacity would continue to be sufficient to serve the local population. General public safety and law enforcement services at the proposed JPC would be provided primarily by DHS, as well as the Maverick County Sheriff's Department. The temporary presence of construction workers at the Project Area during construction activities, and the long-term presence of the proposed JPC and ancillary support facilities, would not increase demand on

local law enforcement services. The Proposed Action would have no impact on schools, libraries, parks, and recreational facilities, and long-term, negligible to minor, adverse impacts on emergency and law enforcement services.

Environmental Justice and the Protection of Children

The ROI, city of Eagle Pass, and Maverick County have Hispanic or Latino populations averaging 95.5 percent. While the city of Eagle Pass and Maverick County have higher poverty rates than the state of Texas, the ROI has a median income higher compared to the city of Eagle Pass, Maverick County, and the state of Texas. However, CEQ determined the ROI to be lowincome and have a disadvantaged status and the USEPA identified environmental justice indicators to be above 50th percentile when compared to the state of Texas and the United States. Therefore, there is potential for low-income populations to be disproportionately affected by the Proposed Action.

The Proposed Action is not located in a high population density area. Increased noise and traffic during construction and operation could affect immediately surrounding populations (see Section 3.7). The land surrounding the Project Area is in a mixed, rural area that currently experiences ambient noise from vehicle traffic along U.S. Highway 277, noise from activities at the borrow pit, and noise from aircraft operations at the Maverick County Memorial International Airport.

During construction and operation, noise and traffic increases would be minimal and temporary, lasting for the duration of construction, and intermittent during daytime hours (i.e., 7 a.m. to 5 p.m.). Construction is expected to produce more noise from traffic and construction equipment than operations; however, both are considered to have minimal impacts due to the sparse population in the immediate vicinity. Activities less than 100 feet from sensitive noise receptors (e.g., fence construction) at this noise level would occur quickly and intermittently, would only require one or two pieces of heavy construction equipment, and should only last a few days. Most of the construction would not occur along the project boundaries and would be between 250 and 1,000 feet from the adjacent residences. Noise exposure at this distance would be temporary and intermittent. All motor vehicles would be properly maintained to reduce the potential for vehicle-related noise. Construction vehicles would travel, and equipment would be transported on established roads with safety precautions. Please refer to **Appendix D** for additional information on BMPs.

Minority populations in the ROI are higher than comparison areas; therefore, any adverse effect is considered disproportionate. Minimal impacts would occur on surrounding populations since there are few residences near the Project Area. The Proposed Action would result in short-term, negligible to minor, disproportionately high, and adverse human health and environmental impacts on minority populations.

Activities occurring near areas that could have higher concentrations of children during any given time, such as schools and childcare facilities, might result in potential impacts on children. Children under the age of 18 make up approximately 33 percent of the ROI; however, there are a small number of residences within the vicinity of the Project Area that could experience increased noise and traffic, and there are no schools, libraries, or childcare facilities near the proposed JPC. Therefore, to the extent that children reside near the JPC, they could experience

temporary or intermittent increased noise and traffic, but these impacts would be negligible to minor.

3.12.3.2 No Action Alternative

Under the No Action Alternative, the JPC would not be constructed, and the existing conditions would remain as described in **Section 3.12.2**. There would be no impacts on people, so there would not be a disproportionately high and adverse human health or environmental effects on socioeconomic status or environmental justice indicators.

3.13 HUMAN HEALTH AND SAFETY

3.13.1 Definition of the Resource

A safe environment is one in which there is no, or an optimally reduced, potential for death, serious bodily injury or illness, or property damage. Safety addresses workers' and public health and safety during any construction, demolition, or project activities (CBP 2016).

Construction safety is largely a matter of adhering to regulatory requirements imposed for the benefit of employees and implementation of operational practices to reduce risks of illness, injury, death, and property damage. The health and safety of on-site construction workers are safeguarded by OSHA and USEPA standards, which specify the amount and type of training required for industrial workers, the use of personal protective equipment and clothing, engineering controls, and maximum exposure limits for workplace stressors (CBP 2019).

Safety and accident hazards can often be identified and reduced or eliminated. Necessary elements for an accident-prone situation or environment include the presence of the hazard itself together with the exposed (and possibly susceptible) population. The degree of exposure depends primarily on the proximity of the hazard to the population. Activities that can be hazardous include transportation, maintenance and repair activities, and the creation of extremely noisy environments. The proper operation, maintenance, and repair of vehicles and equipment carry important safety implications (CBP 2019).

3.13.2 Affected Environment

Contractor Safety

Human health and safety for the Proposed Action may involve exposing workers to hazards that pose a health or safety risk. Construction site safety is largely a matter of planning, training, and adherence to regulatory requirements. These regulatory requirements are imposed for the benefit of employees, and they implement operational practices that reduce risks of illness, injury, death, and property damage. OSHA issues standards that specify the amount and type of safety training and education required for industrial workers, the use of protective equipment and clothing, engineering controls, and maximum exposure limits with respect to workplace stressors (29 CFR Parts 1910 and 1926). DHS applies and adheres to these standards in policy and practice. Additionally, there is known environmental contamination on the parcel from a historical shooting (skeet) range. This area could be capped, use restricted, and/or the soil could be

properly removed and disposed of in order to meet or exceed residential and industrial TCEQ PCLs. BMPs would also be implemented to reduce or avoid impacts. Should ground-disturbing activities be anticipated in the location of the historical shooting (skeet) range (see Figure 3-5), removal of the contaminated soil would be conducted by a certified remediation contractor and disposed of in accordance with federal, state, and local regulations prior to construction activities occurring in this area. These efforts would be conducted to ensure the health and safety of construction workers, contractors, DHS and DHS component personnel, and the general public.

DHS Personnel Safety

DHS personnel are responsible for complying with the OSHA and DHS safety and health requirements. DHS Directive 066-01, *Safety and Health Programs*, establishes DHS's policies, responsibilities, and requirements regarding safety and health programs. The purpose of DHS safety and health programs are to prevent or minimize the loss of DHS resources and to protect employees, contractors, and the visiting public from accidental death, injury, or illness by managing risks through implementation of the tenets of operational risk management and response plans.

Public Safety

Existing conditions related to public safety (including detainees) for the Project Area are discussed below.

The Maverick County Sheriff's Department provides general public safety and law enforcement services at and near the Project Area. The Maverick County Sheriff's Department is approximately 13.5 miles south-southeast of the proposed JPC. The Eagle Pass Police Department provides traffic law enforcement services on public roadways in Eagle Pass, Texas, including U.S. Highway 277, which is in close proximity to the Project Area.

Three hospitals are within Maverick County. The two closest hospitals to the Project Area are Maverick County Hospital District (address: 3406 Bob Rogers Drive # 250, Eagle Pass, Texas) and Fort Duncan Regional Medical Center (address: 3333 North Foster Maldonado Boulevard, Eagle Pass, Texas). The Maverick County and Fort Duncan hospitals are located approximately 13 miles and 14.6 miles south-southeast of the Project Area, respectively. The Maverick County Hospital District provides general and specialty care services, and the Fort Duncan Regional Medical Center provides general and emergency care services (MCHD 2023, FDRMC 2023). Medical response teams serving the area include ambulance and emergency air transportation. The nearest ambulance services are the Eagle Pass Ambulance Services (address: 2701 Del Rio Boulevard, Eagle Pass, Texas) approximately 9.7 miles south-southeast, and El Camino Real Ambulance Services (address: 2178 Del Rio Boulevard, Eagle Pass, Texas) approximately 10.7 miles south-southeast of the Project Area.

Fire response services are located in the primary residential area of Eagle Pass, Texas, southsoutheast of the Proposed Action. The closest fire station is the Station 1 - Charles P. Rodrigues Central Fire Station (address: 580 Quarry Street, Eagle Pass, Texas) approximately 12.5 miles south-southeast of the Project Area. There are three fire stations in Eagle Pass capable of responding to a fire-related emergency (City of Eagle Pass 2023b). The city of Eagle Pass has a Vector Control Program. A Vector Control Program is responsible for the protection of public health through management of mosquitoes that are vectors for human disease, including West Nile virus. There is no further information available on the city of Eagle Pass Vector Control Program. It should be noted that West Nile virus carrying mosquitos are most active at night and are found near wetlands.

3.13.3 Environmental Consequences

3.13.3.1 Proposed Action

The Proposed Action consists of constructing a 200,000 ft^2 structure. Any increase in safety risks would be considered an adverse impact on health and safety. An impact would be considered major and adverse if a Proposed Action would do the following:

- Substantially increase risks associated with the safety of construction personnel DHS personnel, or the local community.
- Substantially hinder the ability to respond to an emergency.
- Introduce a new health or safety risk for which DHS does not have adequate management and response plans in place.

It is DHS policy to exercise environmental due diligence prior to the acquisition of a property. Information provided during due diligence provides a baseline of environmental conditions at the site and is used to identify removal or remedial actions necessary to make the real property suitable for use, establish mitigation measures, and provide for the health and safety of DHS personnel. The proposed JPC would be constructed in accordance with DHS guidelines and incorporate security features (e.g., signage, monitoring and surveillance technologies) as necessary to protect the occupants and assets housed at the JPC.

Contractor Safety

Short-term, negligible, adverse impacts on contractor safety would be expected during construction of the Proposed Action. Construction would pose an increased risk of construction-related accidents; however, adherence to established federal and state safety regulations would reduce this risk. Employer responsibilities would include assessing potentially hazardous workplace conditions, including monitoring employee exposure to workplace chemical, physical, and biological agents, and to ergonomic stressors. Employers would also recommend and evaluate controls to ensure exposure to personnel is eliminated or adequately controlled. Also, a health and safety program would be in place to perform occupational health physicals for those workers subject to the use of respiratory protection, or engaged in hazardous waste, or other work requiring medical monitoring.

Employers are responsible for ensuring workers have all training needed to safely perform their job duties. Employers are also responsible for providing any personal protective equipment needed by the workers. Workers would be required to wear personal protective equipment such as ear protection, steel-toed boots, hard hats, gloves, and other appropriate safety products and comply with site rules and OSHA regulations. Construction areas would be fenced and appropriately marked with signs to prevent trespassing. All equipment operators must be fully

trained and qualified for their assigned equipment. Workers must possess any certifications or licenses required for their specific role or task.

A project-specific health and safety plan would be prepared to prevent or minimize health and safety risks, including exposure to metals in soil and any other hazardous substances that may be encountered. The plan would include identification of chemical, physical, and biological hazards that may be encountered, protocols for environmental and personnel monitoring, requirements for personal protective equipment, procedures for handling excess soil, and other health and safety protocols.

DHS and Public Safety

Impacts on health and safety from the Proposed Action could be long-term, minor, and beneficial. The Proposed Action would provide a new JPC facility with additional space to accommodate DHS staff, undocumented noncitizens, vehicles, and equipment, emergency generators, and utilities. The Proposed Action is needed is to relieve capacity within existing facilities and aid in humanitarian efforts along the United States/Mexico international border to ensure the security, placement, and successful transfer of undocumented noncitizens. The JPC would have more than one safe egress route for use in case of an emergency. No impacts on public health or safety would be expected during construction. The construction site would be fenced with signage posted to further reduce safety risks to the public and the site access gates would be locked after operational hours. BMPs implemented during construction of the proposed JPC would reduce public exposure to construction hazards such as fugitive dust, excessive noise, and standing water which could be a mosquito breeding source resulting in exposure to mosquito-borne diseases.

Long-term, beneficial impacts could occur on public health and safety (health and safety of detainees) as a result of increasing space and relieving capacity in the existing detainment structures. As appropriate, the DHS personnel at the proposed JPC would be responsible for the safety of any individuals at the JPC.

3.13.3.2 No Action Alternative

Under the No Action Alternative, a new JPC would not be constructed, and the proposed construction activities would not occur. The existing soft-sided facilities were designed to be temporary structures and are undersized for the current needs, resulting in the overcrowding of detainees. Keeping the existing facilities in place long-term would negatively impact the health and safety of the public as the facilities are inadequate to safely or efficiently accommodate and process detainees. Under the No Action Alternative, the proposed infrastructure would not be constructed, and the existing conditions would remain unchanged. Therefore, long-term, moderate, adverse impacts on human health and safety would be expected.

3.14 SUSTAINABILITY AND GREENING

3.14.1 Definition of the Resource

Sustainability is defined as the means to create and maintain conditions, under which humans and nature can exist in productive harmony, that permit fulfilling social, economic, and other

requirements of present and future generations of Americans (42 U.S.C. § 4321 et seq.). Under 40 CFR Part 1502, agencies are directed to consider the energy requirements and conservation potential of various alternatives and mitigation measures.

Regulations shaping Federal Government sustainable planning and management practices include the Energy Policy Act (EPACT) of 2005, the EISA of 2007, CEQ's 2020 *Guiding Principles for Sustainable Federal Buildings and Associated Instructions,* and EO 14057, *Catalyzing Clean Energy Industries and Jobs Through Federal Sustainability* (signed December 8, 2021).

The EPACT focused on developing and maintaining reliable and cost-effective energy infrastructure and includes renewable energy requirements for federal agencies. The EISA of 2007 sets targets to reduce fossil fuel-generated energy consumption in new Federal construction and major renovation projects. The *Guiding Principles for High Performance Sustainable Federal Buildings* integrate sustainable building practices and principles to ensure federal buildings (1) Employ Integrated Design Principles, (2) Optimize Energy Performance, (3) Protect and Conserve Water, (4) Enhance the Indoor Environmental Quality, (5) Reduce the Environmental Impact of Materials, and (6) Assess and Consider Building Resilience.

EO 14057 sets government-wide sustainability goals, which include 100 percent carbon pollution-free electricity by 2030, 100 percent zero-emission vehicle acquisitions by 2035, a net-zero emissions building portfolio by 2045, a 65 percent reduction in scope 1 and 2 GHG emissions from federal operations by 2030 from 2008 levels, net-zero emissions from federal procurement, climate resilient infrastructure and operations, and a climate- and sustainability-focused federal workforce. DHS Directive 025-01, Rev. 01, *Sustainable Practices for Environmental, Energy and Economic Performance*, establishes a policy to develop and implement sustainable practices programs to help ensure that operations and actions are carried out in an environmentally, economically, and fiscally sound manner.

3.14.2 Affected Environment

It is DHS practice to apply sustainable development concepts to the planning, design, construction, and major alteration of facilities and infrastructure projects, consistent with budget and mission requirements. A sustainable facility achieves optimum resource efficiency and constructability while minimizing adverse impacts on the built and natural environments throughout its life cycle. Sustainable buildings can save energy and protect the environment while providing a more inviting and productive work environment for employees. This can be achieved with little or no adverse impact on the traditional project goals of cost, quality, and schedule. DHS is committed to responsible environmental stewardship by incorporating principles of sustainable facility design and energy efficiency into its projects. DHS's progress toward meeting its sustainability targets for reduced GHG emissions, energy and water consumption, reduced waste generation, and efficient building performance is reported in the DHS Strategic Sustainability Plan (DHS 2021b).

The proposed JPC design and construction would meet USBP facilities guidelines and security standards. The new facilities would be designed to comply with the CEQ's 2020 *Guiding Principles for Sustainable Federal Buildings and Associated Instructions*. In accordance with

EO 14057, new construction and modernization projects greater than 25,000 gross square feet entering the design phase in fiscal year 2022 and beyond would be designed to be net-zero emissions by 2030, and where feasible, net-zero water and waste buildings.

3.14.3 Environmental Consequences

3.14.3.1 Proposed Action

Impacts on the sustainability of resources and DHS operations from the incorporation of sustainability strategies would be long-term, minor, and beneficial because the new JPC facilities would meet mission requirements while reducing consumption of energy, water, and raw materials. Additionally, long-term, minor, adverse impacts would be expected from the disturbance of green and open spaces that would occur to accommodate construction and operation of the proposed JPC and ancillary support facilities. Compliance with the Guiding Principles, NEPA, EISA, EPACT, EO 14057, and DHS's sustainability and performance policies would be met through incorporation of sustainable development strategies and technologies into the design, construction, operation, and maintenance of the proposed JPC.

3.14.3.2 No Action Alternative

Under the No Action Alternative, DHS would not construct a new JPC and would continue to operate the SSF. DHS would continue to incorporate environmentally sustainable practices (e.g., solid waste recycling, energy and water conservation practices) where possible into the daily operations and maintenance of the existing soft-sided facility. However, long-term, minor, adverse impacts on resource sustainability would be expected from the existing SSF's continued operation, as it does not incorporate the same green building practices that a permanent building would.

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4 CUMULATIVE AND OTHER IMPACTS

4.1 CUMULATIVE IMPACTS

CEQ defines cumulative impacts as the "impacts on the environment which result 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 § 1508.7). Cumulative impacts can result from individually minor but collectively significant past, present, and foreseeable future actions. Informed decision-making is served by consideration of cumulative impacts resulting from actions that are proposed, under construction, recently completed, or anticipated to be implemented in the reasonably foreseeable future.

This cumulative impacts analysis summarizes expected environmental impacts from the combined impacts of past, present, and reasonably foreseeable future actions in accordance with CEQ regulations implementing NEPA and CEQ guidance on cumulative effects (CEQ 1997). The geographic scope of the analysis varies by resource area. For example, the geographic scope of cumulative impacts on resources such as soils and vegetation are narrow and focused on the location of the resource. The geographic scope of air quality and wildlife and sensitive species is much broader and considers more county- or region-wide activities. Projects that were considered for this analysis were identified by reviewing DHS documents; news releases and published media reports; and publicly available information and reports from federal, state, and local agencies. Projects that do not occur in proximity (i.e., within several miles) of the proposed Project Area would not contribute to a cumulative impact and are generally not evaluated further.

4.1.1 Past, Present, and Reasonably Foreseeable Future Actions

Past actions are those within the cumulative impacts analysis areas that have occurred prior to the development of this EA. The impacts of these past actions are generally included in the description in **Section 3**. Present actions include current or funded construction projects, DHS or other agency operations near the proposed Project Area, and current resource management programs and land use activities within the cumulative impacts analysis areas. Reasonably foreseeable future actions consist of activities that have been approved and can be evaluated with respect to their effects. The following activities are present or reasonably foreseeable future actions:

• USBP Checkpoint Upgrades for Life, Health, and Safety in Eagle Pass, Texas: CBP proposes design and construction improvements at the Eagle Pass South Border Patrol Checkpoint (BPCKPT) to ensure the safety of agents and the public. The Eagle Pass South BPCKPT is at a remote site east of the city of Eagle Pass, Texas, and occupies an area of approximately 0.25 acres. The site is adjacent to a well-traveled portion of U.S. Highway 57. Over the past four years, the amount of vehicle volume experienced at the checkpoint has continued to increase at an exponential rate due to the vast growth of the oil/natural gas industries in and around the neighboring areas. This growth in vehicular traffic, coupled with the colocation of the existing checkpoint/station highlights significant concerns as the combination of potential vehicular accidents and possible

fatalities pose an increased risk. The project would require coordination with Texas Department of Transportation (TXDOT) to establish permanent physical barrier system, inspection booth, and install a canopy at the primary inspection area to protect agents inspecting traffic.

- U.S. 57 Corridor Interstate Feasibility Study: The TXDOT Laredo and San Antonio Districts in Texas are responsible for the U.S. Highway 57 corridor, which travels through Maverick, Zavala, and Frio counties and has three international border crossings: one for passenger vehicles, one for commercial vehicles, and one for rail. The purpose of the study is to evaluate the feasibility of converting U.S. Highway 57 to an interstate highway, as well as how to improve east/west connectivity, enhance safety, align with previous local and state planning efforts, and promote community development and economic opportunity at the border and along the corridor. The final Feasibility Study was published in January 2023. No construction has been approved at this time (TXDOT 2023).
- Hotel Construction in Eagle Pass, Texas: Three new hotel projects were announced between August and December 2022. A Wyndham Hotels & Resorts dual-branded La Quinta and Hawthorn Suites Hotel is planned to be built adjacent to the Eagle Pass Golf Course and the historic Fort Duncan Infantry Barracks. A new 17,000 square foot Hyatt Hotel is planned to be built adjacent to the city of Eagle Pass Patsy Winn Sports Complex. Also, a Hilton Home2 Suites Hotel is planned for the intersection of U.S. Highway 277 and Bob Rogers Drive across from the city of Eagle Pass International Center for Trade (EPMCEDA 2023).

4.1.2 Cumulative Analysis by Resource Area

A cumulative impacts analysis must be conducted within the context of the resource areas. The magnitude and context of the impact on a resource area depends on whether the cumulative effects exceed the capacity of a resource to sustain itself and remain productive (CEQ 1997). The following discusses potential cumulative impacts that could occur from implementing the Proposed Action and other present and reasonably foreseeable future actions. No major, adverse, cumulative impacts were identified in the cumulative impacts analysis. Similar results would be expected with the implementation of the Proposed Action and No Action Alternative. Impacts resulting from the implementation of the Proposed Action would be expected to be greater than the No Action Alternative; however, the difference would not be significant.

4.1.2.1 Land Use

Short- and long-term, minor cumulative impacts on land use are expected from the additive effects of the Proposed Action in combination with present and reasonably foreseeable future actions. Although construction of the proposed JPC in a mixed, rural area would alter land use and introduce new structures to undeveloped land, the JPC would be compatible with surrounding land uses. The Proposed Action would convert farmland with the potential for grazing to a non-agricultural use. However, since the soils (designated as prime farmland or farmland of statewide importance by the NRCS) are not currently irrigated, there would be no conversion of soils. Past activities that have most affected land use are the development of previously undeveloped land, particularly agricultural land. If the ongoing and future residential

and mixed-use development projects convert agricultural land to non-agricultural uses, the Proposed Action would contribute to these cumulative impacts. Selective maintenance and repair activities would be expected to result in generally negligible adverse effects on land use. Under the work plan, adherence to BMPs would ensure adverse impacts on land use would be considered negligible.

Although the Project Area is already highly disturbed, cumulative land use impacts would mainly result from the loss of undeveloped land. Similar impacts would be anticipated with the cumulative actions.

4.1.2.2 Geology and Soils

Cumulative impacts would include impacts on topography and soils due to vegetation clearing and soil disturbance from construction activities, such as grading, contouring, trenching, and the increase of impervious surfaces. Other additive effects would include conversion of important farmland soils, if irrigated. However, because the soil has not been irrigated, impacts would be minor. Additional cumulative impacts could occur from construction of structures within areas with geological hazards; however, it is anticipated that all structures would be designed in accordance with applicable state and local building codes to minimize potential impacts. Minor to moderate, cumulative impacts on geology and soils are expected from the additive effects of the Proposed Action in combination with present and reasonably foreseeable future actions.

4.1.2.3 Biological Resources (Vegetation, Terrestrial and Aquatic Wildlife, Special Status Species)

Short- and long-term, minor cumulative impacts on vegetation and habitat are expected from the additive effects of the Proposed Action in combination with present and reasonably foreseeable future actions. Selective maintenance and repair activities would be expected to result in generally negligible adverse effects on vegetation. Under the work plan, adherence to BMPs would ensure impacts on vegetation, including the introduction of non-native species, would be minimized, and consequently the cumulative effects on vegetation resources would be considered negligible.

Minor impacts on terrestrial and aquatic wildlife species are expected from the additive effects of the Proposed Action in combination with other present and reasonably foreseeable future actions. Although the Project Area is already highly disturbed providing marginal habitat for wildlife, cumulative impacts would mainly result from additional loss of habitat, habitat disturbance, and habitat fragmentation. Similar impacts would be anticipated from the cumulative actions.

Short- or long-term, negligible effects on federally or state listed threatened, endangered, or candidate species would be expected from implementation of the Proposed Action in combination with other present and reasonably foreseeable future actions. Because there is no suitable habitat for federal- or state-listed species at the Project Area, effects would be negligible, especially with implementation of BMPs and conservation measures. It is not expected that long-term viability of threatened, endangered, and candidate species would be adversely impacted through the cumulative actions. Therefore, negligible cumulative effects on these species are anticipated to occur.

4.1.2.4 Water Resources

The Proposed Action in combination with other present and reasonably foreseeable future actions would result in short- and long-term, minor, adverse impacts on water resources. Due to the overall increase in impervious surfaces, evaporation would increase and groundwater recharge would decrease, which could change the availability of water supply in the area. Additionally, increased impervious surfaces and runoff could increase erosion, sedimentation, and conveyance of pollutants into surface waters, such as the Rio Grande. However, preparation of and compliance with a project-specific SWPPP and implementation of BMPs would minimize adverse impacts.

4.1.2.5 Air Quality

The Proposed Action would result in short- and long-term, negligible to minor, adverse impacts on air quality from construction and operations. Construction for the CBP Eagle Pass South BPCKPT upgrades and hotels in Eagle Pass could coincide with JPC construction. Present and reasonably foreseeable construction activities that coincide with construction activities for the Proposed Action could contribute additional airborne dust (primarily PM₁₀), causing intermittent increases in air emissions; however, all such occurrences would be temporary in nature and cease upon completion of such construction activities. Because emissions from the Proposed Action would not be considered significant for the region, cumulative impacts on air quality from the Proposed Action, when combined with other present and reasonably foreseeable future actions, would not be significant.

4.1.2.6 Noise

The present and reasonably foreseeable future actions that require construction (i.e., construction of the three hotels) are between 11 and 12 miles south of the Project Area. Noise from these actions would attenuate well below 65 dBA before reaching the Project Area. Therefore, noise from the present and reasonably foreseeable future actions would not affect the Proposed Action and would not result in short-term, cumulative impacts on the ambient noise environment if conducted concurrently with the Proposed Action. Based on the distance between the Proposed Action and the other present and reasonably foreseeable future actions, operation of future facilities would not result in long-term cumulative impacts on the ambient noise environment when combined with operation and maintenance of the JPC and ancillary support facilities under the Proposed Action.

4.1.2.7 Cultural Resources

The Proposed Action would not result in major, adverse cumulative impacts on cultural resources. The 2023 cultural resources survey report discusses previously recorded and newly identified resources in the survey area, including the remains of one historic-age skeet range (DHS 2023a). All cultural resources within the Proposed Action area were evaluated for significance and determined to be ineligible for listing in the NRHP. Therefore, the proposed ground-disturbing activities would not cause a substantial adverse change in the significance of any known cultural resources. No cultural resources were identified within 1 mile of the Proposed Action area. Therefore, no direct or indirect impacts are anticipated for cultural

resources outside of the Proposed Action area because the resources would not be disturbed. There is potential for the inadvertent discovery of cultural resources and human remains during construction; however, impacts would be avoided with implementation of BMPs. No known existing cemeteries or previously recorded Native American or other human remains are within or adjacent to the Project Area. Because there are no eligible cultural resources within the Project Area, there would be no cumulative effects on cultural resources from the other present and reasonably foreseeable future actions when considered in conjunction with the Proposed Action.

4.1.2.8 Utilities and Infrastructure

The Proposed Action, as well as present and reasonably foreseeable future actions within the city of Eagle Pass, would implement BMPs and divert materials that could be recycled or reused from landfills to the greatest extent possible. Additionally, construction of new infrastructure would result in long-term, beneficial impacts from improved water conservation and energy efficiency when compared to the existing SSF. Therefore, the Proposed Action, when combined with other present and reasonably foreseeable future actions would not result in a significant cumulative impact on utilities and infrastructure.

4.1.2.9 Roadways and Traffic

The Proposed Action, as well as present and reasonably foreseeable future actions within the city of Eagle Pass would implement BMPs and limit alterations to existing roadways and traffic patterns wherever possible. Therefore, the Proposed Action, when combined with other present and reasonably foreseeable future actions would not result in a significant cumulative impact on roadways and traffic.

4.1.2.10 Hazardous Materials and Wastes

The Proposed Action, as well as other present and reasonably foreseeable future actions within the city of Eagle Pass would incorporate appropriate BMPs and environmental protection measures to limit and control hazardous materials and wastes into their design and operations plans. Therefore, the Proposed Action, when combined with other present and reasonably foreseeable future actions would not result in a significant cumulative impact on hazardous materials and wastes management.

4.1.2.11 Socioeconomic Resources, Environmental Justice, and Protection of Children

Short- and long-term, minor, beneficial, cumulative impacts on socioeconomic resources and short-term, negligible to minor, adverse, cumulative impacts on environmental justice (minority populations in the ROI) and protection of children are expected from the additive effects of the Proposed Action in combination with other present and reasonably foreseeable future actions. Construction of the JPC and maintenance and repair activities by DHS personnel and contractors would be expected to result in generally minor, beneficial effects on socioeconomic resources as jobs are created and the purchase of goods and services in the region could have a minor benefit on the local economy. Short-term, negligible to minor, adverse, cumulative impacts on environmental justice and protection of children are expected due to noise and traffic disruptions during construction activities. The ROI has a minority population greater than 50 percent and

there is the possibility that children are living in the residential housing near the Project Area. However, the area surrounding the Project Area is sparsely populated and it is anticipated that any negative cumulative effects would be short-term and negligible to minor.

4.1.2.12 Human Health and Safety

Short- and long-term, minor, cumulative impacts on human health and safety are expected from the additive effects of the Proposed Action in combination with other present and reasonably foreseeable future actions. Selective maintenance and repair activities by DHS personnel and contractors would be expected to result in generally negligible adverse effects human health and safety depending on the frequency, type, and extent of maintenance and repairs. Compliance with regulatory requirements and operational practices would reduce risk to a level considered to be minor.

4.1.2.13 Sustainability and Greening

Long-term, negligible to minor, beneficial cumulative impacts would be expected from incorporating sustainable design into the proposed JPC and cumulative projects. Beneficial impacts from reduced energy and water usage, reduced waste generation, increased use of recycled and repurposed materials, use of cost-effective sustainable technologies, and incorporation of sustainable design would be expected from implementation of the Proposed Action and hotels (Hyatt 2020, Wyndham 2023, Hilton 2023). These impacts would reflect incorporation of sustainable and low-impact design and operating strategies in compliance with DHS sustainability policies, EISA, EPACT, and EO 14057. The TXDOT projects are not likely to contribute and would have a negligible cumulative impact.

4.2 RELATIONSHIP BETWEEN THE SHORT-TERM USE OF THE ENVIRONMENT AND LONG-TERM PRODUCTIVITY

Short-term uses of the biophysical components of the human environment include direct construction-related disturbances and direct impacts associated with an increase in population and activity that occurs over a period of less than five years. Long-term uses of the human environment include those impacts that occur over a period of more than five years, including permanent resource loss.

Over time, proposed construction and disturbance activities would include the majority of the Project Area. The development of this land would permanently remove a portion of the natural resources, such as vegetation, wildlife habitat, and agricultural resources and important farmland soils (if irrigated).

4.3 UNAVOIDABLE ADVERSE IMPACTS

Unavoidable adverse impacts are related to the use of non-renewable resources and the impacts that the use of these resources would have on future generations. Unavoidable adverse impacts primarily result from the use or destruction of a specific resource that cannot be replaced within a reasonable timeframe (e.g., energy and minerals). The irreversible and irretrievable commitments of resources that would result from implementation of the Proposed Action involve

the consumption of material resources used for construction, energy resources, biological resources, and human labor resources. The use of these resources is considered to be permanent.

Geology and Soils. The Proposed Action would result in minor impacts on topography and soils due to vegetation clearing and soil disturbance from construction activities, such as grading, contouring, trenching, and increase of impervious surfaces. Other additive effects would include conversion of important farmland soils, if irrigated. Reviewing historical aerial photographs of the Project Area has shown that the area has not been irrigated. Additionally, because there are large tracts of similar vegetation and soil outside the Project Area, the loss would be minor and considered not significant.

Health and Safety. The Proposed Action would result in short-term, negligible, adverse impacts on contractor safety as construction would expose contractors to safety and health risks. However, workers would take the necessary precautions to limit hazard risks.

Material Resources. Material resources used for the Proposed Action would potentially include building materials, concrete and asphalt, and various construction materials and supplies. Materials that would be consumed are not in short supply, would not limit other unrelated construction activities, and would not be considered significant.

Energy Resources. Energy resources, including petroleum-based products (e.g., gasoline and diesel), used for the Proposed Action would be irretrievably lost. During construction and maintenance activities, gasoline and diesel would be used for the operation of vehicles and construction equipment. However, consumption of these energy resources would not place a significant demand on their availability in the region. Therefore, less than significant impacts would be expected.

Human Resources. The use of human resources for construction and maintenance activities is considered an irretrievable loss only in that it would preclude such personnel from engaging in other work activities. However, the use of human resources for the Proposed Action represents employment opportunities and is considered beneficial.

Biological Resources. The Proposed Action would result in a minor loss of vegetation and existing fragmented wildlife habitat. Because there are large tracts of similar habitat outside of the Project Area, the loss would be minor and not considered significant; therefore, a less than significant impact on the irretrievable loss of vegetation and wildlife habitat is expected.

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APPENDIX A

Public Involvement and Agency Coordination



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Appendix A: Public Involvement & Agency Coordination

Interested Party List

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Local Contacts

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Maverick County Sheriff Office 500 Quarry Street, STE 3 Eagle Pass, TX 78852

Mayor Rolando Salinas, Jr City of Eagle Pass 100 S Monroe Street Eagle Pass, TX 78852 Mr. William Davis City of Eagle Pass 100 S Monroe Street Eagle Pass, TX 78852

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Mr. Rex Mcbeath Maverick County Planner 500 Quarr Street, Suite 1 Eagle Pass, TX 78852

The County of Maverick Attn: Judge Ramsey English Cantu 500 Quarry St, Ste 3 Eagle Pass, TX 78852

Tribal Contacts

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| | BRIGHT, RACHAEL S (CTR) |
|--------------|--|
| From: | DEYOUNG, DONNA J. (CTR) |
| To: | PETRILLA, JOHN |
| Cc: | BPAM NEPA Mailbox / USCBP Joint Processing Center, Maverick Co. (TPWD Review #50231) |
| Subject: | Friday, March 24, 2023 1:07:46 PM |
| Date: | |
| Attachments: | |

Hi Donna,

Please see the below email and attachment.

Thank you,

Rachael S. Bright

From: Russell Hooten <Russell.Hooten@tpwd.texas.gov>
Sent: Friday, March 24, 2023 10:35 AM
To: BPAM NEPA <bpamnepa@cbp.dhs.gov>
Cc: Russell Hooten <Russell.Hooten@tpwd.texas.gov>
Subject: USCBP Joint Processing Center, Maverick Co. (TPWD Review #50231)

CAUTION: This email originated from outside of DHS. DO NOT click links or open attachments unless you recognize and/or trust the sender. If you feel this is a suspicious-looking email, please report by using the Report Phish button option.

Texas Parks and Wildlife department's (TPWD) comments regarding the proposed project referenced in the Subject Line above are attached. Please contact me with any questions.

Sincerely,

Russell Hooten Habitat Assessment Biologist Ecological and Environmental Planning Program TPWD-Wildlife Division 1409 Waldron Road Corpus Christi, TX 78418 <u>russell.hooten@tpwd.texas.gov</u> 361-431-6003 Office



Life's better outside."

Commissioners

Arch "Beaver" Aplin, III Chairman Lake Jackson

> Dick Scott Vice-Chairman Wimberley

James E. Abell Kilgore

Oliver J. Bell Cleveland

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Travis B. "Blake" Rowling Dallas

> Lee M. Bass Chairman-Emeritus Fort Worth

T. Dan Friedkin Chairman-Emeritus Houston

David Yoskowitz, Ph.D. Executive Director March 24, 2023

John Petrilla

Energy and Environmental PMO Office of Facilities and Asset Management U.S. Customs and Border Protection 1300 Pennsylvania Avenue NW Washington, DC 20229

RE: Proposed land acquisition, construction, and maintenance of a Joint Processing Center in Eagle Pass, Maverick County, Texas

Dear Mr. Petrilla:

This letter is in response to your request for information to assist the U.S. Customs and Border Protection (CBP) prepare a Draft Environmental Assessment (EA) for the proposed project referenced above and more fully described below.

Project Description

The proposed project would acquire approximately 63 acres of land north of Eagle Pass, Maverick County, Texas, to construct and maintain a new, permanent multiagency Joint Processing Center to replace the current 25-acre temporary facility. The 63-acre site for the new facility would include the 25 acres of land currently leased by CBP for the temporary processing facility. The temporary facility would be removed to accommodate construction of the new facility.

Texas Parks and Wildlife Department (TPWD) staff reviewed the information provided and offers the following comments and recommendations.

General Construction Recommendations

To assist in project planning, TPWD provides the following beneficial management practices (BMPs) and general construction recommendations:

Recommendation: TPWD recommends the judicious use and placement of sediment control fence to exclude wildlife from discrete construction areas, when applicable. In many cases, sediment control fence placement for the purposes of controlling erosion and protecting water quality can be modified minimally to also provide the benefit of excluding wildlife access to construction areas. The exclusion fence should be buried at least six inches and be at least 24 inches high. The exclusion fence should be maintained for the life of the project and only removed after the construction is completed and disturbed areas have been revegetated with site-specific native species. Construction personnel should be encouraged to examine the inside of exclusion areas daily to determine if any wildlife species have been trapped inside the areas of impact and provide safe egress opportunities prior to initiation of construction activities.

4200 SMITH SCHOOL ROAD AUSTIN, TEXAS 78744-3291 512.389.4800

www.tpwd.texas.gov

To manage and conserve the natural and cultural resources of Texas and to provide hunting, fishing and outdoor recreation opportunities for the use and enjoyment of present and future generations. Mr. John Petrilla Page 2 March 24, 2023

Recommendation: TPWD recommends that any open trenches or excavation areas (e.g., for buried electrical or plumbing infrastructure) be covered overnight and/or inspected every morning to ensure no wildlife species have been trapped. For open trenches and excavated areas that cannot be covered overnight, escape ramps fashioned from soil or boards should be installed at an angle of less than 45 degrees (1:1) in the trenches to allow wildlife to climb out on their own.

Recommendation: For soil stabilization and/or revegetation of disturbed areas, TPWD recommends erosion and seed/mulch stabilization materials that avoid entanglement hazards to snakes and other wildlife species. TPWD recommends the use of no-till drilling, hydromulching and/or hydroseeding due to a reduced risk to wildlife.

Recommendation: Because the mesh found in many erosion control blankets or mats pose an entanglement hazard to wildlife, TPWD recommends avoiding the use of plastic mesh matting. If erosion control blankets or mats containing netting must be used, the netting should be loosely woven, natural fiber material where the mesh design allows the threads to move, therefore allowing expansion of the mesh openings. Plastic mesh matting and hydromulch containing microplastics should be avoided.

Recommendation: For encounters with rare species that will not readily leave the work area, TPWD recommends an authorized individual translocate the animal. Translocations of reptiles should be the minimum distance possible from the work area. Ideally, individuals to be relocated should be transported to the closest suitable habitat outside of the active construction area; preferably within 100 to 200 yards and not greater than one mile from the capture site. State listed species may only be handled by persons with appropriate authorization from the TPWD Wildlife Permits Office. For more information regarding Wildlife Permits, please contact the Wildlife Permits Office at (512) 389-4647.

Impacts to Vegetation/Wildlife Habitat

Approximately 50 percent of the project area would be cleared of vegetation to develop the site. There were minimal details provided on vegetation removal or revegetation/landscaping; therefore, TPWD is providing the following recommendations to assist in project planning.

Recommendation: TPWD recommends reducing the amount of vegetation proposed for clearing if possible and minimizing clearing native vegetation, particularly mature, mast producing native trees and shrubs, to the greatest extent practicable. After the facility has been constructed, TPWD recommends restoring vegetation on the site through landscaping that focuses on native plant species and communities that provide wildlife cover, food (e.g., fruit, mast, pollen), and Mr. John Petrilla Page 3 March 24, 2023

> breeding habitat. Colonization by invasive species, particularly invasive grasses and weeds, should be actively prevented. Vegetation management should include removing invasive species early on while allowing existing native plants to revegetate disturbed areas. TPWD recommends referring to the Lady Bird Johnson Wildflower Center Native Plant Database for regionally adapted native species that would be appropriate for landscaping and revegetation.

Landscaping for Monarch Butterflies and Pollinators

Significant declines in the population of migrating monarch butterflies (*Danaus plexippus*) have led to widespread concern about this species and the long-term persistence of the North American monarch migration. As part of an international conservation effort, TPWD has developed the *Texas Monarch and Native Pollinator Conservation Plan*. One of the broad categories of action in the plan is to augment larval feeding and adult nectaring opportunities.

Recommendation: TPWD recommends incorporating pollinator conservation and management into the landscaping plans for the proposed facility. TPWD recommends revegetation efforts include planting or seeding native milkweed (*Asclepias* spp.) and nectar plants as funding and seed availability allow. Information about monarch biology, migration, and butterfly gardening can be found on the Monarch Watch website. Information related to pollinator conservation in Texas, including planting recommendations, are available in the TPWD publication *Management Recommendations for Native Insect Pollinators in Texas* (available online).

Federal Regulations

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) prohibits taking, attempting to take, capturing, killing, selling, purchasing, possessing, transporting, and importing of migratory birds, their eggs, parts, or nests, except when specifically authorized by the Department of the Interior. This protection applies to most native bird species, including ground nesting species. The U.S. Fish and Wildlife Service (USFWS) Migratory Bird Office can be contacted at (505) 248-7882 for more information on potential impacts to migratory birds.

Review of aerial photography and the Ecological Mapping Systems of Texas (EMST) indicates that the area into which the proposed project would expand may consist of a variety of shrubland and woodland habitats, including ramadero shrubland and woodlands. Portions of the project area may provide suitable nesting, feeding, and loafing habitat for birds.

Mr. John Petrilla Page 4 March 24, 2023

Data from the eBird online application indicates that the over 100 bird species, including Species of Greatest Conservation Need (SGCN), have been documented at the Radar Base WTP/Firefly Lane eBird hotspot which is adjacent to the proposed project site.

Recommendation: TPWD recommends scheduling vegetation clearing to occur outside of the general bird nesting season (March 15 through September 15) to avoid adverse impacts to birds. If disturbance within the project area must be scheduled to occur during the nesting season, TPWD recommends any vegetation to be impacted (trees, shrubs, and grasses) or bare ground where occupied nests may be located should be surveyed for active nests by a qualified biologist prior to clearing.

Nest surveys should be conducted no more than five days prior to scheduled clearing in order to maximize the detection of active nests, including recently constructed nests. If active nests are observed during surveys, TPWD recommends a 100-foot radius buffer of vegetation remain around nests until eggs have hatched and the young have fledged; however, the size of the buffer zone is dependent on various factors and can be coordinated with the local or regional USFWS office.

Raptor nesting occurs late winter through early spring; TPWD recommends construction activities be excluded from a minimum zone of approximately 325 feet surrounding any raptor nest during the period of February 1 through July 15.

State Regulations

Parks and Wildlife Code, Chapter 64-Birds

State law prohibits any take or possession of nongame birds, including their eggs and nests. Laws and regulations pertaining to state-protection of nongame birds are contained in chapter 64 of the Texas Parks and Wildlife Code (PWC); specifically, section 64.002 provides that no person may catch, kill, injure, pursue, or possess a bird that is not a game bird. PWC section 64.003, regarding destroying nests or eggs, provides that, no person may destroy or take the nests, eggs, or young and any wild game bird, wild bird, or wild fowl. PWC chapter 64 does not allow for incidental take.

Although not documented in the Texas Natural Diversity Database (TXNDD), many bird species which are not listed as *threatened* or *endangered* are protected by chapter 64 of the PWC and are known to be year-round or seasonal residents or seasonal migrants through the proposed project area.

Recommendation: Please review the *Federal Regulations: Migratory Bird Treaty Act* section above for recommendations as they are applicable for complying with chapter 64 of the PWC.

Mr. John Petrilla Page 5 March 24, 2023

Parks and Wildlife Code, Section 68.015

PWC regulates state listed threatened and endangered animal species. The capture, trap, take, or killing of state listed threatened and endangered animal species is unlawful unless expressly authorized under a permit issued by the USFWS or TPWD. A copy of *TPWD Guidelines for Protection of State-Listed Species*, which includes a list of penalties for take of species, can be found on the TPWD Wildlife Habitat Assessment Program website. State listed species may only be handled by persons with appropriate authorization from the TPWD Wildlife Permits Office. For more information regarding Wildlife Permits, please contact the Wildlife Permits Office at (512) 389-4647.

The potential occurrence of state listed species in the project area is primarily dependent upon the availability of suitable habitat. Direct impacts to high quality or suitable habitat therefore are directly proportional to the magnitude and potential to directly impact state listed species. State listed reptiles that are typically slow moving or unable to move due to cool temperatures are especially susceptible to being directly impacted during site clearing and construction. Small wildlife such as lizards, turtles, and snakes are susceptible to falling into open pits, excavations, trenches, etc. left open and/or uncovered in a project area.

Please be aware that determining the actual presence of a species in a given area depends on many variables including daily and seasonal activity cycles, environmental activity cues, preferred habitat, transiency and population density (both wildlife and human). The absence of a species can be demonstrated only with great difficulty and then only with repeated negative observations, taking into account all the variable factors contributing to the lack of detectable presence.

Recommendation: TPWD recommends reviewing the most current TPWD annotated county lists of rare species for Maverick County as state listed species could be present depending upon habitat availability. The annotated county lists are available online at the TPWD Wildlife Diversity website. Environmental documents prepared for the project should include an inventory of existing natural resources within the project area. Specific evaluations should be designed to predict project impacts upon these natural resources including potential impacts to state listed species.

Recommendation: Regarding potential wildlife entrapment in trenches and installing an exclusion fence in discrete locations within the larger project area, please see recommendations under the *General Construction Recommendations* above.

Exclusion fences are particularly effective in preventing reptile species from entering a construction area.

Mr. John Petrilla Page 6 March 24, 2023

To avoid or minimize potential negative impacts to state listed species with potential to occur in the area, TPWD recommends the following:

Black bear

Historically, black bears occurred in the mountainous Trans-Pecos region of west Texas. However, over the past 15 years, black bear populations have increased and expanded into the western portions of the Edwards Plateau and South Texas Plains where they occur in more open grassland areas. Black bears are typically shy and elusive. They use travel corridors to move between feeding areas and bedding areas.

Recommendation: To avoid attracting black bears to work areas, garbage containers, particularly if they contain food waste, should have lids that can be secured. If a black bear is observed within the project area, TPWD requests that the observation be reported to TPWD mammologist Jonah Evans at (830) 331-8739. For more information, please see the black bear fact sheet available on the TPWD website.

Texas horned lizard

The Texas horned lizard (*Phrynosoma cornutum*) can be found in open, arid, and semiarid regions with sparse vegetation, including grass, cactus, scattered brush or scrubby trees. If present in the general project area, the Texas horned lizard could be impacted by ground disturbing activities. Texas horned lizards may hibernate on-site in loose soils a few inches below ground during the cooler months from September/October to March/April. Construction in these areas could harm hibernating lizards. Horned lizards are active above ground when temperatures exceed 75 degrees Fahrenheit. If horned lizards (nesting, gravid females, newborn young, lethargic from cool temperatures or hibernation) cannot move away from noise and approaching construction equipment, they could be negatively affected by construction activities.

Recommendation: TPWD recommends avoiding disturbance of the Texas horned lizard, its burrows, and colonies of its primary food source, the harvester ant (*Pogonomyrmex* sp.), during clearing and construction. TPWD recommends a permitted biological monitor be present during construction to attempt to capture and relocate Texas horned lizards, if found. If the presence of a biological monitor is not feasible, Texas horned lizards observed during construction should be allowed to safely leave the site on their own.

Texas tortoise

The Texas tortoise occurs primarily in thornscrub and open woodlands and brush. It feeds primarily on fruits of prickly pear and succulent plants. Texas tortoises have low fecundity; individuals take over 10 years to reach maturity and females do not

Mr. John Petrilla Page 7 March 24, 2023

reproduce every year. Nesting occurs in spring and summer. The Texas tortoise has a home range of approximately five to ten acres. Suitable habitat for the Texas tortoise appears to occur within the project study area. Tortoises are often found near or at the base of prickly pear cactus and may seek shade by crawling under parked vehicles.

Recommendation: TPWD recommends reviewing the *Texas Tortoise Best Management Practices* document available online at TPWD's Wildlife Habitat Assessment Program homepage. Contractors and other staff should be made aware that in south Texas, the Texas tortoise is generally inactive from December through January and is therefore likely to be undetectable in a project area during those months. TPWD recommends a biological monitor be on site during any vegetation clearing to inspect sites subject to disturbance that may provide cover for tortoises (e.g., bases of prickly pear cactus) or provide sites for tortoise pallets (shallow excavations typically at the base of vegetation that are opportunistically occupied by tortoises). As indicated above, tortoises may seek cover (shade) underneath parked vehicles; therefore, TPWD recommends that before driving vehicles that have been parked within the project area, contractors should check underneath the vehicles to ensure no tortoises are present.

If a tortoise is located at the project site, it should be relocated only if it is found in an area in which imminent danger is present. Individuals that must be relocated should be transported to the closest suitable habitat outside of the proposed disturbance area but preferably within its five to ten acre range. After tortoises are removed from the immediate project area, TPWD recommends constructing an exclusion fence as described under *General Construction Recommendations* above.

During construction, reduced speed limits should be established and enforced in areas in which state listed reptiles could occur.

When inactive, tortoises may occupy the shallow depressions or pallets that are scratched out at the base of vegetative cover; tortoises may also be found sheltering in burrows.

Recommendation: If possible, TPWD recommends completing major ground disturbing activities before late fall or winter when reptiles become inactive and could be utilizing burrows in areas subject to disturbance. If ground disturbing construction activities must occur after October (e.g., to avoid migratory bird nesting season) in areas of suitable tortoise habitat, TPWD recommends surveying those areas for tortoises or indications of tortoise presence, e.g., the presence of burrows or pallets under prickly pear. If tortoises or indications of tortoise presence is observed, TPWD-Wildlife Habitat Assessment Program staff should be contacted.

Mr. John Petrilla Page 8 March 24, 2023

Species of Greatest Conservation Need (SGCN)

In addition to state and federally protected species, TPWD tracks species considered to be SGCN that, due to limited distributions and/or declining populations, face threat of extirpation or extinction but currently lack the legal protection given to threatened or endangered species. Special landscape features, natural communities, and SGCN are rare resources for which TPWD actively promotes conservation, and TPWD considers it important to evaluate and, if necessary, minimize impacts to such resources to reduce the likelihood of endangerment and preclude the need to list SGCN as threatened or endangered in the future. These species and communities are tracked in the TXNDD. The most current and accurate TXNDD data can be requested from the TXNDD website.

Please note that the absence of TXNDD information in an area does not imply that a species is absent from that area. Given the small proportion of public versus private land in Texas, the TXNDD does not include a representative inventory of rare resources in the state. Although it is based on the best data available to TPWD regarding rare species, the data from the TXNDD do not provide a definitive statement as to the presence, absence, or condition of special species, natural communities, or other significant features within your project area. These data are not inclusive and **cannot be used as presence/absence data**. This information cannot be substituted for on-the-ground surveys.

Recommendation: Please review the current TPWD county list for Maverick County as rare and protected species could be present, depending on habitat availability. If during construction, the project area is found to contain SGCN or protected species, natural plant communities, or special features, TPWD recommends that precautions be taken to avoid impacts to them.

Suitable habitat for the following SGCN species may occur in the project area. The following BMPs are provided to assist in project planning to avoid/minimize potential impacts.

SGCN Reptiles

Reticulate collared lizard (*Crotaphytus reticulatus*) Tamaulipan spot tailed earless lizard (*Holbrookia subcaudalis*) Texas indigo snake (*Drymarchon melanurus erebennus*)

Reticulate collared lizard

Reticulate collared lizards are large lizards known to bask on elevated dirt mounds such as those along the edges of unimproved roads throughout south Texas. They generally occur in areas void of vegetation (i.e., bare rock, gravel) and in typical Mr. John Petrilla Page 9 March 24, 2023

shrubland/chaparral habitat. Also, both reticulate collard lizards and Texas horned lizards are especially active during the spring (April-May) mating season and are more likely to be negatively impacted by construction activities during this period.

Recommendation: When approached, reticulate collared lizards will typically flee to the base of a shrub and remain motionless. Contractors should be made aware of the potential to encounter reticulate collared lizards in the project area. If encountered, contractors should allow the lizards to escape; contractors should also be instructed to avoid negatively impacting any lizards encountered.

Tamaulipan spot tailed earless lizard

The spot-tailed earless lizard (STEL) (*Holbrookia lacerata*) occurs in central and southern Texas. It has been determined that these are distinct and separate populations; therefore, the STEL had been split into two subspecies, the plateau STEL and the Tamaulipan STEL (*Holbrookia subcaudalis*). Habitat for this species includes moderately open prairie-brushlands, particularly flat areas free of vegetation or other obstructions. They also occur in old and new fields, graded roadways, disturbed areas and in areas of active agriculture including row crops.

Recommendation: TPWD recommends implementing the following BMPs to avoid and/or minimize potential impacts to the Tamaulipan STEL. TPWD notes that implementing the following BMPs could also help minimize impacts to a variety of native wildlife species that may inhabit the project area.

• A major threat to the Tamaulipan STEL is road traffic, as this species has exhibited behavior indicating that they prefer roads and tend to cross roads often, potentially for thermoregulation. TPWD recommends reducing the amount of roads, both temporary and permanent, planned to be constructed for the proposed project. TPWD also recommends reducing speed limits in the project area to at least 15 mph (or slower) to help prevent vehicle-induced mortality of this species.

• This species prefers a mixture of bare ground and sparse vegetation, including disturbed areas. TPWD recommends avoiding impacts to suitable habitat for this species. Areas disturbed by project-related construction activities within suitable habitat for the Tamaulipan STEL should be revegetated with site-specific native, patchy vegetation rather than sod-forming grasses.

• This species utilizes burrows for shelter. TPWD recommends identifying locations of burrows on the project site and avoiding impacts to burrows if feasible.

• TPWD recommends providing contractor training for the identification, behavior,

Mr. John Petrilla Page 10 March 24, 2023

and habitat requirements of the Tamaulipan STEL. It is important for construction personnel to be able to identify this species and to be on the lookout for them during construction and to avoid impacting them if encountered on-site.

Texas indigo snake

The Texas indigo snake is the largest nonvenomous snake in North America and is typically associated with aquatic habitats including drainage ditches, ponds and wetlands, and manmade ponds. Due to its high metabolism, this species has a large home range in which it searches for prey and may be encountered away from aquatic habitats, its preferred habitat.

Recommendation: Because all snakes are generally perceived as a threat and killed when encountered during vegetation clearing, TPWD recommends project plans include comments to inform contractors of the potential for SGCN snake species to occur in the project area. The Texas indigo snake is non-venomous and contractors should be advised to avoid impacts to this species and other snakes as long as the safety of the workers is not compromised. For the safety of workers and preservation of a natural resource, attempting to catch, relocate and/or kill non-venomous or venomous snakes is discouraged by TPWD. If encountered, snakes should be permitted to safely leave project areas on their own. TPWD encourages construction sites to have a "no kill" policy in regard to wildlife encounters.

I appreciate the opportunity to review and comment on this project. Please contact me at (361) 431-6003 or **russell.hooten@tpwd.texas.gov** if we may be of further assistance.

Sincerely,

Russell Hooten

Russell Hooten Wildlife Habitat Assessment Program Wildlife Division

/rh 50231



1300 Pennsylvania Avenue, NW Washington, DC 20229

U.S. Customs and Border Protection

March 31, 2023

ATTN: Mark Wolfe State Historic Preservation Officer Texas Historical Commission 1511 N Colorado Street Austin, TX 78701

Submitted Electronically to the eTrac System.

SUBJECT: Notification of Proposed Undertaking - U.S. Customs and Border Protection, Eagle Pass Joint Processing Center, Maverick County, Texas

Dear Mr. Wolfe:

Pursuant to Section 106 of the National Historic Preservation Act (54 U.S.C. § 306108) and its implementing regulations (36 C.F.R Part 800), U.S. Customs and Border Protection (CBP), an agency within the Department of Homeland Security (DHS), is transmitting this letter and enclosures to initiate consultation and identify historic properties for the above referenced Undertaking.

Description of Undertaking

DHS proposes to purchase 62.76 acres of land and to construct, operate, and maintain a JPC to support humanitarian efforts along the Southwest Border. The Undertaking is located near Eagle Pass, Texas on land currently leased by CBP for the existing North Eagle Pass soft-sided processing facility.

The Undertaking is needed to provide additional processing facilities and aid in humanitarian efforts along the Southwest border by ensuring the security, placement, and successful transition of migrants and refugees. This multi-agency facility would be used by DHS, DHS Components, and potentially other Federal agencies as appropriate.

Area of Potential Effects

Pursuant to National Historic Preservation Act regulations, 36 C.F.R §§ 800.4(a)(1) and 800.16(d), CBP has defined the Area of Potential Effects (APE) for both above-ground and below-ground historic or cultural resources as the entire 62.76-acre tract of the larger 153-acre parent tract owned by Maverick County. The proposed construction of a permanent JPC would be located at 223 Fire Fly Lane, Eagle Pass, Texas 78852 on the southern side of State Highway (SH) 131 and northeastern side of U.S. Highway (Hwy) 277 in Maverick County, Texas.

Texas Historical Commission Page 2

Currently, CBP is using portions of the APE for a soft-sided processing facility.

The western and northwestern boundary of the APE is marked by previously developed areas consisting of the Maverick County Emergency Operations Center, a paved parking lot, and multiple permanent structures including residential structures. The eastern boundary of the APE is marked by an in-use water treatment facility. The APE is bounded to the northeast by an area previously used as a large gravel borrow pit. A total of 25.7 acres of the proposed project area have been previously disturbed by the construction of the in-use soft-sided processing facility.

Identification and Evaluation of Historic Resources

Based on a Class I cultural resource records review, no previously conducted cultural resource surveys are within one-half mile of the APE. In addition, no previously recorded cultural resource sites have been identified within one-half mile of the APE. CBP contracted with Dawson Solutions, LLC. (DAWSON) to perform a Phase III (100% pedestrian) cultural resources survey of the APE.

As a result of the survey, four isolated occurrences/artifact (IO), one isolated feature (IF), and one newly recorded cultural resources site were identified. The identified IOs consist of four historic sanitary cans; the IF consists of the remains of a cattle corral. No additional features or artifacts were identified in association with the four IOs that were recorded. Similarly, no artifacts were identified in association with the identified cattle corral. Based on the lack of information potential and integrity of the remaining feature, neither the IOs nor the IF are considered archaeologically significant and are recommended ineligible for inclusion on the National Register of Historic Places (NRHP).

In addition to the isolated artifacts and feature, one historic site was recorded during the investigation. The site consists of three semi-circular concrete pathways that make up individual skeet fields. Based on the historic records, the identified skeet fields pre-date 1947. The three skeet fields were previously part of a larger skeet range that comprised eight skeet fields. The skeet range is likely associated with the historic U.S. Air Force base previously located immediately east of the project area; however, no documentation of this could be located. No artifacts were identified in association with the documented features. Furthermore, the identified site has been heavily disturbed by previous land development. Based on the lack of information potential and integrity of the remaining features, the site is not considered archaeologically significant and is recommended ineligible for inclusion on the NRHP.

Finally, an assessment of impacts to a 0.5-mile visual APE was conducted; no cultural resources would be affected by visual impacts.

A copy of the report, "Cultural Resources Survey of 62.76 Acres of County Lands Associated with the Proposed Eagle Pass Joint Processing Center Located in the Del Rio Sector, Maverick County, Texas.", prepared by DAWSON, 2023, is enclosed for your information. This report presents the survey efforts and subsequent results.

Texas Historical Commission Page 3

Request for Concurrence

Based on the Class I records review and Class III survey, CBP has determined that this Undertaking will have no effect on historic properties located in, or near, the APE. CBP requests your concurrence with this determination.

If you have any questions concerning the proposed Undertaking, please contact Ms. Donna DeYoung at (214) 701-4313 or via email at <u>donna.j.deyoung@cbp.dhs.gov</u>. Please also provide an electronic copy of your response to Mr. John Petrilla (<u>john.p.petrilla@cbp.dhs.gov</u>) and Ms. DeYoung. Written correspondence may be submitted by mail to the following address: U.S. Customs and Border Protection, 24000 Avila Road, Suite 5020, Laguna Niguel, CA 92677, Attn: John Petrilla.

We appreciate your continued cooperation and support.

Sincerely,

JOHN P PETRILLA Digitally signed by JOHN P PETRILLA Date: 2023.03.31 15:22:43 -07'00'

John Petrilla Execution Team | Energy and Environmental PMO Office of Facilities and Asset Management U.S. Customs and Border Protection

Enclosure: Map of Project Area Cultural Resources Survey Report

Enclosure: Map of Project Area.



Kristin Lang

Sent: To: Subject:



Re: Project Review under Section 106 of the National Historic Preservation Act THC Tracking #202306734 Date: 04/24/2023 Eagle Pass JPC CR Survey (Permit 30922) Eagle Pass Eagle Pass,TX

Description: U.S. Customs and Border Protection, Eagle Pass Joint Processing Center, Maverick County, Texas

Dear Nicholas R. Billstrand:

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 Tiffany Osburn and Caitlin Brashear, 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.

- THC/SHPO concurs with information provided.
- THC/SHPO has comments on the draft report submitted to this office for review.

We have the following comments: Site 41MV422 is referred to as 41MN422 throughout the report and in figures and figure references. Please correct prior to submitting final report.

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: tiffany.osburn@thc.texas.gov, caitlin.brashear@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 <u>http://thc.texas.gov/etrac-system</u>.

Sincerely,



for Mark Wolfe, State Historic Preservation Officer Executive Director, Texas Historical Commission

Please do not respond to this email.

1300 Pennsylvania Avenue, NW Washington, DC 20229



U.S. Customs and Border Protection

June 08, 2023

Principal Chief Donnis Battise Alabama-Coushatta Tribe of Texas 571 State Park Rd 56 Livingston, TX 77351

SUBJECT: Notification of Proposed Undertaking - U.S. Customs and Border Protection, Eagle Pass Joint Processing Center (JPC), Maverick County, Texas

Dear Principal Chief Battise:

Pursuant to Section 106 of the National Historic Preservation Act (54 U.S.C. § 306108) and its implementing regulations (36 C.F.R Part 800), U.S. Customs and Border Protection (CBP), an agency within the Department of Homeland Security (DHS), is transmitting this letter and enclosures to initiate consultation and identify historic properties for the above referenced Undertaking.

Description of Undertaking

DHS proposes to purchase 62.76 acres of land and to construct, operate, and maintain a JPC to support humanitarian efforts along the Southwest Border. The Undertaking is near Eagle Pass, Texas on land currently leased by CBP for the existing North Eagle Pass soft-sided processing facility.

The Undertaking is needed to provide additional processing facilities and aid in humanitarian efforts along the Southwest border by ensuring the security, placement, and successful transition of migrants and refugees. This multi-agency facility would be used by DHS, DHS Components, and potentially other Federal agencies as appropriate.

Area of Potential Effects

Pursuant to National Historic Preservation Act regulations, 36 C.F.R §§ 800.4(a)(1) and 800.16(d), CBP has defined the Area of Potential Effects (APE) for both above-ground and below-ground historic or cultural resources as the entire 62.76-acre tract of the larger 153-acre parent tract owned by Maverick County. The proposed construction of a permanent JPC would be located at 223 Fire Fly Lane, Eagle Pass, Texas 78852 on the southern side of State Highway (SH) 131 and northeastern side of U.S. Highway (Hwy) 277 in Maverick County, Texas. Currently, CBP is using portions of the APE for a soft-sided processing facility.

The western and northwestern boundary of the APE is marked by previously developed areas consisting of the Maverick County Emergency Operations Center, a paved parking lot, and multiple permanent structures including residential structures. The eastern boundary of the APE is marked by an in-use water treatment facility. The APE is bounded to the northeast by an area

Principal Chief Battise Page 2

previously used as a large gravel borrow pit. A total of 25.7 acres of the proposed project area have been previously disturbed by the construction of the in-use soft-sided processing facility.

Identification and Evaluation of Historic Resources

Based on a Class I cultural resource records review, no previously conducted cultural resource surveys are within one-half mile of the APE. In addition, no previously recorded cultural resource sites have been identified within one-half mile of the APE. CBP contracted with Dawson Solutions, LLC. (DAWSON) to perform a Phase III (100% pedestrian) cultural resources survey of the APE.

As a result of the survey, four isolated occurrences/artifact (IO), one isolated feature (IF), and one newly recorded cultural resources site were identified. The identified IOs consist of four historic sanitary cans; the IF consists of the remains of a cattle corral. No additional features or artifacts were identified in association with the four IOs that were recorded. Similarly, no artifacts were identified in association with the identified cattle corral. Based on the lack of information potential and integrity of the remaining feature, neither the IOs nor the IF are considered archaeologically significant and are recommended ineligible for inclusion on the National Register of Historic Places (NRHP).

Some or all of the Project Area is located within 1,100 acres of the former Eagle Pass Auxiliary Airport (Airfield) which is listed as a Formerly Used Defense Site. The land, ultimately transferred to Maverick County, was previously used by Laughlin Air Force Base as a training site on and off from the 1940s through 1995 when it was deemed excess. The original Trap and Skeet Range (or Skeet Range) consisted of 55 acres. Known or suspected munitions associated with the range include only small arms ammunition which are cartridges ranging in size from .22 caliber to 30 millimeters. Cartridges are intended for various types of handheld or mounted weapons including rifles, pistols, revolvers, machine guns, and shotguns.

In association with the above-described Skeet Range, one historic-age site (41MV422) was recorded during the investigation. The site consists of three semi-circular concrete pathways that make up individual skeet fields. Based on the historic records, the identified skeet fields pre-date 1947. The three skeet fields were previously part of a larger skeet range comprised of eight skeet fields. No artifacts were identified in association with the documented features. Furthermore, the identified skeet field has been heavily disturbed by previous land development. Based on the lack of information potential, and integrity of the remaining features, the site is not considered archaeologically significant and is recommended ineligible for inclusion on the NRHP.

Finally, an assessment of impacts on a 0.5-mile visual APE was conducted; no cultural resources would be affected by visual impacts.

A copy of the report, "Cultural Resources Survey of 62.76 Acres of County Lands Associated with the Proposed Eagle Pass Joint Processing Center Located in the Del Rio Sector, Maverick County, Texas", prepared by DAWSON, 2023, is available upon request. This report presents the survey efforts and subsequent results.

Principal Chief Battise Page 3

Request for Comment

Based on the Class I records review and Class III survey, CBP has determined that this Undertaking will have no effect on historic properties located in, or near, the APE. CBP requests your comments on this determination.

If you have any questions concerning the proposed Undertaking, please contact Ms. Donna DeYoung at (214) 701-4313 or via email at <u>donna.j.deyoung@cbp.dhs.gov</u>. Please also provide an electronic copy of your response to Mr. John Petrilla (john.p.petrilla@cbp.dhs.gov) and Ms. DeYoung. Written correspondence may be submitted by mail to the following address: U.S. Customs and Border Protection, 24000 Avila Road, Suite 5020, Laguna Niguel, CA 92677, Attn: John Petrilla.

We appreciate your continued cooperation and support.

Sincerely,

JOHN P PETRILLA

Digitally signed by JOHN P PETRILLA Date: 2023.06.08 12:42:42 -07'00'

John Petrilla Execution Team | Energy and Environmental PMO Office of Facilities and Asset Management U.S. Customs and Border Protection

Enclosure: Map of Project Area

Principal Chief Battise Page 4

Enclosure: Map of Project Area.



1300 Pennsylvania Avenue, NW Washington, DC 20229



U.S. Customs and Border Protection

June 08, 2023

Alabama-Coushatta Tribe of Texas; THPO 571 State Park Rd 56 Livingston, TX 77351

SUBJECT: Notification of Proposed Undertaking - U.S. Customs and Border Protection, Eagle Pass Joint Processing Center (JPC), Maverick County, Texas

To whom it may concern:

Pursuant to Section 106 of the National Historic Preservation Act (54 U.S.C. § 306108) and its implementing regulations (36 C.F.R Part 800), U.S. Customs and Border Protection (CBP), an agency within the Department of Homeland Security (DHS), is transmitting this letter and enclosures to initiate consultation and identify historic properties for the above referenced Undertaking.

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Alabama-Coushatta Tribe of Texas; THPO Page 2

have been previously disturbed by the construction of the in-use soft-sided processing facility.

Identification and Evaluation of Historic Resources

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Alabama-Coushatta Tribe of Texas; THPO Page 3

Request for Comment

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We appreciate your continued cooperation and support.

Sincerely,

JOHN P PETRILLA

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John Petrilla Execution Team | Energy and Environmental PMO Office of Facilities and Asset Management U.S. Customs and Border Protection

Enclosure: Map of Project Area

Alabama-Coushatta Tribe of Texas; THPO Page 4

Enclosure: Map of Project Area.



1300 Pennsylvania Avenue, NW Washington, DC 20229



U.S. Customs and Border Protection

June 08, 2023

Chairman Durell Cooper Apache Tribe of Oklahoma 620 E Colorado Ave Anadarko, OK 73005

SUBJECT: Notification of Proposed Undertaking - U.S. Customs and Border Protection, Eagle Pass Joint Processing Center (JPC), Maverick County, Texas

Dear Chairman Cooper:

Pursuant to Section 106 of the National Historic Preservation Act (54 U.S.C. § 306108) and its implementing regulations (36 C.F.R Part 800), U.S. Customs and Border Protection (CBP), an agency within the Department of Homeland Security (DHS), is transmitting this letter and enclosures to initiate consultation and identify historic properties for the above referenced Undertaking.

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Area of Potential Effects

Pursuant to National Historic Preservation Act regulations, 36 C.F.R §§ 800.4(a)(1) and 800.16(d), CBP has defined the Area of Potential Effects (APE) for both above-ground and below-ground historic or cultural resources as the entire 62.76-acre tract of the larger 153-acre parent tract owned by Maverick County. The proposed construction of a permanent JPC would be located at 223 Fire Fly Lane, Eagle Pass, Texas 78852 on the southern side of State Highway (SH) 131 and northeastern side of U.S. Highway (Hwy) 277 in Maverick County, Texas. Currently, CBP is using portions of the APE for a soft-sided processing facility.

The western and northwestern boundary of the APE is marked by previously developed areas consisting of the Maverick County Emergency Operations Center, a paved parking lot, and multiple permanent structures including residential structures. The eastern boundary of the APE is marked by an in-use water treatment facility. The APE is bounded to the northeast by an area

Chairman Cooper Page 2

previously used as a large gravel borrow pit. A total of 25.7 acres of the proposed project area have been previously disturbed by the construction of the in-use soft-sided processing facility.

Identification and Evaluation of Historic Resources

Based on a Class I cultural resource records review, no previously conducted cultural resource surveys are within one-half mile of the APE. In addition, no previously recorded cultural resource sites have been identified within one-half mile of the APE. CBP contracted with Dawson Solutions, LLC. (DAWSON) to perform a Phase III (100% pedestrian) cultural resources survey of the APE.

As a result of the survey, four isolated occurrences/artifact (IO), one isolated feature (IF), and one newly recorded cultural resources site were identified. The identified IOs consist of four historic sanitary cans; the IF consists of the remains of a cattle corral. No additional features or artifacts were identified in association with the four IOs that were recorded. Similarly, no artifacts were identified in association with the identified cattle corral. Based on the lack of information potential and integrity of the remaining feature, neither the IOs nor the IF are considered archaeologically significant and are recommended ineligible for inclusion on the National Register of Historic Places (NRHP).

Some or all of the Project Area is located within 1,100 acres of the former Eagle Pass Auxiliary Airport (Airfield) which is listed as a Formerly Used Defense Site. The land, ultimately transferred to Maverick County, was previously used by Laughlin Air Force Base as a training site on and off from the 1940s through 1995 when it was deemed excess. The original Trap and Skeet Range (or Skeet Range) consisted of 55 acres. Known or suspected munitions associated with the range include only small arms ammunition which are cartridges ranging in size from .22 caliber to 30 millimeters. Cartridges are intended for various types of handheld or mounted weapons including rifles, pistols, revolvers, machine guns, and shotguns.

In association with the above-described Skeet Range, one historic-age site (41MV422) was recorded during the investigation. The site consists of three semi-circular concrete pathways that make up individual skeet fields. Based on the historic records, the identified skeet fields pre-date 1947. The three skeet fields were previously part of a larger skeet range comprised of eight skeet fields. No artifacts were identified in association with the documented features. Furthermore, the identified skeet field has been heavily disturbed by previous land development. Based on the lack of information potential, and integrity of the remaining features, the site is not considered archaeologically significant and is recommended ineligible for inclusion on the NRHP.

Finally, an assessment of impacts on a 0.5-mile visual APE was conducted; no cultural resources would be affected by visual impacts.

A copy of the report, "Cultural Resources Survey of 62.76 Acres of County Lands Associated with the Proposed Eagle Pass Joint Processing Center Located in the Del Rio Sector, Maverick County, Texas", prepared by DAWSON, 2023, is available upon request. This report presents the survey efforts and subsequent results.

Chairman Cooper Page 3

Request for Comment

Based on the Class I records review and Class III survey, CBP has determined that this Undertaking will have no effect on historic properties located in, or near, the APE. CBP requests your comments on this determination.

If you have any questions concerning the proposed Undertaking, please contact Ms. Donna DeYoung at (214) 701-4313 or via email at <u>donna.j.deyoung@cbp.dhs.gov</u>. Please also provide an electronic copy of your response to Mr. John Petrilla (john.p.petrilla@cbp.dhs.gov) and Ms. DeYoung. Written correspondence may be submitted by mail to the following address: U.S. Customs and Border Protection, 24000 Avila Road, Suite 5020, Laguna Niguel, CA 92677, Attn: John Petrilla.

We appreciate your continued cooperation and support.

Sincerely,

JOHN P PETRILLA Digitally signed by JOHN P PETRILLA Date: 2023.06.08 12:43:50 -07'00'

John Petrilla Execution Team | Energy and Environmental PMO Office of Facilities and Asset Management U.S. Customs and Border Protection

Enclosure: Map of Project Area
Chairman Cooper Page 4





U.S. Customs and Border Protection

June 08, 2023

Chairman Juan Mancias Carrizo/Comecrudo Tribe of Texas 1250 Roemer Lane, Unit C Floresville, TX 78114

SUBJECT: Notification of Proposed Undertaking - U.S. Customs and Border Protection, Eagle Pass Joint Processing Center (JPC), Maverick County, Texas

Dear Chairman Mancias:

Pursuant to Section 106 of the National Historic Preservation Act (54 U.S.C. § 306108) and its implementing regulations (36 C.F.R Part 800), U.S. Customs and Border Protection (CBP), an agency within the Department of Homeland Security (DHS), is transmitting this letter and enclosures to initiate consultation and identify historic properties for the above referenced Undertaking.

Description of Undertaking

DHS proposes to purchase 62.76 acres of land and to construct, operate, and maintain a JPC to support humanitarian efforts along the Southwest Border. The Undertaking is near Eagle Pass, Texas on land currently leased by CBP for the existing North Eagle Pass soft-sided processing facility.

The Undertaking is needed to provide additional processing facilities and aid in humanitarian efforts along the Southwest border by ensuring the security, placement, and successful transition of migrants and refugees. This multi-agency facility would be used by DHS, DHS Components, and potentially other Federal agencies as appropriate.

Area of Potential Effects

Pursuant to National Historic Preservation Act regulations, 36 C.F.R §§ 800.4(a)(1) and 800.16(d), CBP has defined the Area of Potential Effects (APE) for both above-ground and below-ground historic or cultural resources as the entire 62.76-acre tract of the larger 153-acre parent tract owned by Maverick County. The proposed construction of a permanent JPC would be located at 223 Fire Fly Lane, Eagle Pass, Texas 78852 on the southern side of State Highway (SH) 131 and northeastern side of U.S. Highway (Hwy) 277 in Maverick County, Texas. Currently, CBP is using portions of the APE for a soft-sided processing facility.

Chairman Mancias Page 2

previously used as a large gravel borrow pit. A total of 25.7 acres of the proposed project area have been previously disturbed by the construction of the in-use soft-sided processing facility.

Identification and Evaluation of Historic Resources

Based on a Class I cultural resource records review, no previously conducted cultural resource surveys are within one-half mile of the APE. In addition, no previously recorded cultural resource sites have been identified within one-half mile of the APE. CBP contracted with Dawson Solutions, LLC. (DAWSON) to perform a Phase III (100% pedestrian) cultural resources survey of the APE.

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Some or all of the Project Area is located within 1,100 acres of the former Eagle Pass Auxiliary Airport (Airfield) which is listed as a Formerly Used Defense Site. The land, ultimately transferred to Maverick County, was previously used by Laughlin Air Force Base as a training site on and off from the 1940s through 1995 when it was deemed excess. The original Trap and Skeet Range (or Skeet Range) consisted of 55 acres. Known or suspected munitions associated with the range include only small arms ammunition which are cartridges ranging in size from .22 caliber to 30 millimeters. Cartridges are intended for various types of handheld or mounted weapons including rifles, pistols, revolvers, machine guns, and shotguns.

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Finally, an assessment of impacts on a 0.5-mile visual APE was conducted; no cultural resources would be affected by visual impacts.

Chairman Mancias Page 3

Request for Comment

Based on the Class I records review and Class III survey, CBP has determined that this Undertaking will have no effect on historic properties located in, or near, the APE. CBP requests your comments on this determination.

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We appreciate your continued cooperation and support.

Sincerely,

JOHN P PETRILLA Digitally signed by JOHN P PETRILLA Date: 2023.06.08 12:44:18 -07'00'

John Petrilla Execution Team | Energy and Environmental PMO Office of Facilities and Asset Management U.S. Customs and Border Protection

Chairman Mancias Page 4





U.S. Customs and Border Protection

June 08, 2023

Director Anna Duy Comanche Nation 1269 Record Crossing Rd Dallas, TX 75235

SUBJECT: Notification of Proposed Undertaking - U.S. Customs and Border Protection, Eagle Pass Joint Processing Center (JPC), Maverick County, Texas

Dear Director Duy:

Pursuant to Section 106 of the National Historic Preservation Act (54 U.S.C. § 306108) and its implementing regulations (36 C.F.R Part 800), U.S. Customs and Border Protection (CBP), an agency within the Department of Homeland Security (DHS), is transmitting this letter and enclosures to initiate consultation and identify historic properties for the above referenced Undertaking.

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Director Duy Page 2

previously used as a large gravel borrow pit. A total of 25.7 acres of the proposed project area have been previously disturbed by the construction of the in-use soft-sided processing facility.

Identification and Evaluation of Historic Resources

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Director Duy Page 3

Request for Comment

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We appreciate your continued cooperation and support.

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JOHN P PETRILLA /

Digitally signed by JOHN P PETRILLA Date: 2023.06.08 12:44:38 -07'00'

John Petrilla Execution Team | Energy and Environmental PMO Office of Facilities and Asset Management U.S. Customs and Border Protection

Director Duy Page 4





June 08, 2023

Chairman Juan Garza Jr. Kickapoo Traditional Tribal Government of Texas 2212 Rosita Valley Road Eagle Pass, TX 78852

SUBJECT: Notification of Proposed Undertaking - U.S. Customs and Border Protection, Eagle Pass Joint Processing Center (JPC), Maverick County, Texas

Dear Chairman Garza Jr.:

Pursuant to Section 106 of the National Historic Preservation Act (54 U.S.C. § 306108) and its implementing regulations (36 C.F.R Part 800), U.S. Customs and Border Protection (CBP), an agency within the Department of Homeland Security (DHS), is transmitting this letter and enclosures to initiate consultation and identify historic properties for the above referenced Undertaking.

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Chairman Garza Jr. Page 2

previously used as a large gravel borrow pit. A total of 25.7 acres of the proposed project area have been previously disturbed by the construction of the in-use soft-sided processing facility.

Identification and Evaluation of Historic Resources

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Chairman Garza Jr. Page 3

Request for Comment

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We appreciate your continued cooperation and support.

Sincerely,

JOHN P PETRILLA

Digitally signed by JOHN P PETRILLA Date: 2023.06.08 12:45:06 -07'00'

John Petrilla Execution Team | Energy and Environmental PMO Office of Facilities and Asset Management U.S. Customs and Border Protection

Chairman Garza Jr. Page 4





U.S. Customs and Border Protection

June 08, 2023

Chairman Darwin Kaskaske Kickapoo Tribe of Oklahoma P.O. Box 70 105365 S. HWY 102 McLoud, OK 74851

SUBJECT: Notification of Proposed Undertaking - U.S. Customs and Border Protection, Eagle Pass Joint Processing Center (JPC), Maverick County, Texas

Dear Chairman Kaskaske:

Pursuant to Section 106 of the National Historic Preservation Act (54 U.S.C. § 306108) and its implementing regulations (36 C.F.R Part 800), U.S. Customs and Border Protection (CBP), an agency within the Department of Homeland Security (DHS), is transmitting this letter and enclosures to initiate consultation and identify historic properties for the above referenced Undertaking.

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The western and northwestern boundary of the APE is marked by previously developed areas consisting of the Maverick County Emergency Operations Center, a paved parking lot, and multiple permanent structures including residential structures. The eastern boundary of the APE

Chairman Kaskaske Page 2

is marked by an in-use water treatment facility. The APE is bounded to the northeast by an area previously used as a large gravel borrow pit. A total of 25.7 acres of the proposed project area have been previously disturbed by the construction of the in-use soft-sided processing facility.

Identification and Evaluation of Historic Resources

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Chairman Kaskaske Page 3

Request for Comment

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Sincerely,

JOHN P PETRILLA

Digitally signed by JOHN P PETRILLA Date: 2023.06.08 12:45:29 -07'00'

John Petrilla Execution Team | Energy and Environmental PMO Office of Facilities and Asset Management U.S. Customs and Border Protection

Chairman Kaskaske Page 4





U.S. Customs and Border Protection

June 08, 2023

Chairman Bernard Barcena Jr. Lipan Apache Tribe of Texas P.O. Box 5218 McAllen, TX 78502

SUBJECT: Notification of Proposed Undertaking - U.S. Customs and Border Protection, Eagle Pass Joint Processing Center (JPC), Maverick County, Texas

Dear Chairman Barcena Jr.:

Pursuant to Section 106 of the National Historic Preservation Act (54 U.S.C. § 306108) and its implementing regulations (36 C.F.R Part 800), U.S. Customs and Border Protection (CBP), an agency within the Department of Homeland Security (DHS), is transmitting this letter and enclosures to initiate consultation and identify historic properties for the above referenced Undertaking.

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Chairman Barcena Jr. Page 2

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Chairman Barcena Jr. Page 3

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We appreciate your continued cooperation and support.

Sincerely,

JOHN P PETRILLA Digitally signed by JOHN P PETRILLA Date: 2023.06.08 12:46:00 -07'00'

John Petrilla Execution Team | Energy and Environmental PMO Office of Facilities and Asset Management U.S. Customs and Border Protection

Chairman Barcena Jr. Page 4





U.S. Customs and Border Protection

June 08, 2023

Mr. Tom Castillo Lipan Apache Tribe of Texas; THPO P.O. Box 5218 McAllen, TX 78502

SUBJECT: Notification of Proposed Undertaking - U.S. Customs and Border Protection, Eagle Pass Joint Processing Center (JPC), Maverick County, Texas

Dear Mr. Castillo:

Pursuant to Section 106 of the National Historic Preservation Act (54 U.S.C. § 306108) and its implementing regulations (36 C.F.R Part 800), U.S. Customs and Border Protection (CBP), an agency within the Department of Homeland Security (DHS), is transmitting this letter and enclosures to initiate consultation and identify historic properties for the above referenced Undertaking.

Description of Undertaking

DHS proposes to purchase 62.76 acres of land and to construct, operate, and maintain a JPC to support humanitarian efforts along the Southwest Border. The Undertaking is near Eagle Pass, Texas on land currently leased by CBP for the existing North Eagle Pass soft-sided processing facility.

The Undertaking is needed to provide additional processing facilities and aid in humanitarian efforts along the Southwest border by ensuring the security, placement, and successful transition of migrants and refugees. This multi-agency facility would be used by DHS, DHS Components, and potentially other Federal agencies as appropriate.

Area of Potential Effects

Pursuant to National Historic Preservation Act regulations, 36 C.F.R §§ 800.4(a)(1) and 800.16(d), CBP has defined the Area of Potential Effects (APE) for both above-ground and below-ground historic or cultural resources as the entire 62.76-acre tract of the larger 153-acre parent tract owned by Maverick County. The proposed construction of a permanent JPC would be located at 223 Fire Fly Lane, Eagle Pass, Texas 78852 on the southern side of State Highway (SH) 131 and northeastern side of U.S. Highway (Hwy) 277 in Maverick County, Texas. Currently, CBP is using portions of the APE for a soft-sided processing facility.

Mr. Castillo Page 2

previously used as a large gravel borrow pit. A total of 25.7 acres of the proposed project area have been previously disturbed by the construction of the in-use soft-sided processing facility.

Identification and Evaluation of Historic Resources

Based on a Class I cultural resource records review, no previously conducted cultural resource surveys are within one-half mile of the APE. In addition, no previously recorded cultural resource sites have been identified within one-half mile of the APE. CBP contracted with Dawson Solutions, LLC. (DAWSON) to perform a Phase III (100% pedestrian) cultural resources survey of the APE.

As a result of the survey, four isolated occurrences/artifact (IO), one isolated feature (IF), and one newly recorded cultural resources site were identified. The identified IOs consist of four historic sanitary cans; the IF consists of the remains of a cattle corral. No additional features or artifacts were identified in association with the four IOs that were recorded. Similarly, no artifacts were identified in association with the identified cattle corral. Based on the lack of information potential and integrity of the remaining feature, neither the IOs nor the IF are considered archaeologically significant and are recommended ineligible for inclusion on the National Register of Historic Places (NRHP).

Some or all of the Project Area is located within 1,100 acres of the former Eagle Pass Auxiliary Airport (Airfield) which is listed as a Formerly Used Defense Site. The land, ultimately transferred to Maverick County, was previously used by Laughlin Air Force Base as a training site on and off from the 1940s through 1995 when it was deemed excess. The original Trap and Skeet Range (or Skeet Range) consisted of 55 acres. Known or suspected munitions associated with the range include only small arms ammunition which are cartridges ranging in size from .22 caliber to 30 millimeters. Cartridges are intended for various types of handheld or mounted weapons including rifles, pistols, revolvers, machine guns, and shotguns.

In association with the above-described Skeet Range, one historic-age site (41MV422) was recorded during the investigation. The site consists of three semi-circular concrete pathways that make up individual skeet fields. Based on the historic records, the identified skeet fields pre-date 1947. The three skeet fields were previously part of a larger skeet range comprised of eight skeet fields. No artifacts were identified in association with the documented features. Furthermore, the identified skeet field has been heavily disturbed by previous land development. Based on the lack of information potential, and integrity of the remaining features, the site is not considered archaeologically significant and is recommended ineligible for inclusion on the NRHP.

Finally, an assessment of impacts on a 0.5-mile visual APE was conducted; no cultural resources would be affected by visual impacts.

Mr. Castillo Page 3

Request for Comment

Based on the Class I records review and Class III survey, CBP has determined that this Undertaking will have no effect on historic properties located in, or near, the APE. CBP requests your comments on this determination.

If you have any questions concerning the proposed Undertaking, please contact Ms. Donna DeYoung at (214) 701-4313 or via email at <u>donna.j.deyoung@cbp.dhs.gov</u>. Please also provide an electronic copy of your response to Mr. John Petrilla (john.p.petrilla@cbp.dhs.gov) and Ms. DeYoung. Written correspondence may be submitted by mail to the following address: U.S. Customs and Border Protection, 24000 Avila Road, Suite 5020, Laguna Niguel, CA 92677, Attn: John Petrilla.

We appreciate your continued cooperation and support.

Sincerely,

JOHN P PETRILLA

Digitally signed by JOHN P PETRILLA Date: 2023.06.08 12:46:23 -07'00'

John Petrilla Execution Team | Energy and Environmental PMO Office of Facilities and Asset Management U.S. Customs and Border Protection

Mr. Castillo Page 4





U.S. Customs and Border Protection

June 08, 2023

President Eddie Martinez Mescalero Apache Tribe P.O. Box 227, 108 Central Avenue Mescalero, NM 88340

SUBJECT: Notification of Proposed Undertaking - U.S. Customs and Border Protection, Eagle Pass Joint Processing Center (JPC), Maverick County, Texas

Dear President Martinez:

Pursuant to Section 106 of the National Historic Preservation Act (54 U.S.C. § 306108) and its implementing regulations (36 C.F.R Part 800), U.S. Customs and Border Protection (CBP), an agency within the Department of Homeland Security (DHS), is transmitting this letter and enclosures to initiate consultation and identify historic properties for the above referenced Undertaking.

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President Martinez Page 2

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President Martinez Page 3

Request for Comment

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We appreciate your continued cooperation and support.

Sincerely,

JOHN P PETRILLA Digitally signed by JOHN P PETRILLA Date: 2023.06.08 12:46:39 -07'00'

John Petrilla Execution Team | Energy and Environmental PMO Office of Facilities and Asset Management U.S. Customs and Border Protection

President Martinez Page 4





U.S. Customs and Border Protection

June 08, 2023

Ms. Holly Houghten Mescalero Apache Tribe: THPO P.O. Box 227, 108 Central Avenue Mescalero, NM 88340

SUBJECT: Notification of Proposed Undertaking - U.S. Customs and Border Protection, Eagle Pass Joint Processing Center (JPC), Maverick County, Texas

Dear Ms. Houghten:

Pursuant to Section 106 of the National Historic Preservation Act (54 U.S.C. § 306108) and its implementing regulations (36 C.F.R Part 800), U.S. Customs and Border Protection (CBP), an agency within the Department of Homeland Security (DHS), is transmitting this letter and enclosures to initiate consultation and identify historic properties for the above referenced Undertaking.

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Ms. Houghten Page 2

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Identification and Evaluation of Historic Resources

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Ms. Houghten Page 3

Request for Comment

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We appreciate your continued cooperation and support.

Sincerely,

JOHN P PETRILLA Digitally signed by JOHN P PETRILLA Date: 2023.06.08 12:47:02 -07'00'

John Petrilla Execution Team | Energy and Environmental PMO Office of Facilities and Asset Management U.S. Customs and Border Protection

Ms. Houghten Page 4





U.S. Customs and Border Protection

June 08, 2023

President Russel Martin Tonkawa Tribe of Oklahoma 1 Rush Buffalo Rd Tonkawa, OK 74653

SUBJECT: Notification of Proposed Undertaking - U.S. Customs and Border Protection, Eagle Pass Joint Processing Center (JPC), Maverick County, Texas

Dear President Martin:

Pursuant to Section 106 of the National Historic Preservation Act (54 U.S.C. § 306108) and its implementing regulations (36 C.F.R Part 800), U.S. Customs and Border Protection (CBP), an agency within the Department of Homeland Security (DHS), is transmitting this letter and enclosures to initiate consultation and identify historic properties for the above referenced Undertaking.

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President Martin Page 2

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President Martin Page 3

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JOHN P PETRILLA Digitally signed by JOHN P PETRILLA Date: 2023.06.08 12:47:17 -07'00'

John Petrilla Execution Team | Energy and Environmental PMO Office of Facilities and Asset Management U.S. Customs and Border Protection
President Martin Page 4

Enclosure: Map of Project Area.



1300 Pennsylvania Avenue, NW Washington, DC 20229



U.S. Customs and Border Protection

June 08, 2023

President Terri Parton Wichita and Affiliated Tribes P.O. Box 729 Anadarko, OK 73005

SUBJECT: Notification of Proposed Undertaking - U.S. Customs and Border Protection, Eagle Pass Joint Processing Center (JPC), Maverick County, Texas

Dear President Parton:

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The western and northwestern boundary of the APE is marked by previously developed areas consisting of the Maverick County Emergency Operations Center, a paved parking lot, and multiple permanent structures including residential structures. The eastern boundary of the APE is marked by an in-use water treatment facility. The APE is bounded to the northeast by an area

President Parton Page 2

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A copy of the report, "Cultural Resources Survey of 62.76 Acres of County Lands Associated with the Proposed Eagle Pass Joint Processing Center Located in the Del Rio Sector, Maverick County, Texas", prepared by DAWSON, 2023, is available upon request. This report presents the survey efforts and subsequent results.

President Parton Page 3

Request for Comment

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JOHN P PETRILLA Digitally signed by JOHN P PETRILLA Date: 2023.06.08 12:47:38 -07'00'

John Petrilla Execution Team | Energy and Environmental PMO Office of Facilities and Asset Management U.S. Customs and Border Protection

Enclosure: Map of Project Area

President Parton Page 4

Enclosure: Map of Project Area.



1300 Pennsylvania Avenue, NW Washington, DC 20229



U.S. Customs and Border Protection

June 08, 2023

Mr. Gary McAdams Wichita and Affiliated Tribes; THPO P.O. Box 729 Anadarko, OK 73005

SUBJECT: Notification of Proposed Undertaking - U.S. Customs and Border Protection, Eagle Pass Joint Processing Center (JPC), Maverick County, Texas

Dear Mr. McAdams:

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Mr. McAdams Page 2

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In association with the above-described Skeet Range, one historic-age site (41MV422) was recorded during the investigation. The site consists of three semi-circular concrete pathways that make up individual skeet fields. Based on the historic records, the identified skeet fields pre-date 1947. The three skeet fields were previously part of a larger skeet range comprised of eight skeet fields. No artifacts were identified in association with the documented features. Furthermore, the identified skeet field has been heavily disturbed by previous land development. Based on the lack of information potential, and integrity of the remaining features, the site is not considered archaeologically significant and is recommended ineligible for inclusion on the NRHP.

Finally, an assessment of impacts on a 0.5-mile visual APE was conducted; no cultural resources would be affected by visual impacts.

A copy of the report, "Cultural Resources Survey of 62.76 Acres of County Lands Associated with the Proposed Eagle Pass Joint Processing Center Located in the Del Rio Sector, Maverick County, Texas", prepared by DAWSON, 2023, is available upon request. This report presents the survey efforts and subsequent results.

Mr. McAdams Page 3

Request for Comment

Based on the Class I records review and Class III survey, CBP has determined that this Undertaking will have no effect on historic properties located in, or near, the APE. CBP requests your comments on this determination.

If you have any questions concerning the proposed Undertaking, please contact Ms. Donna DeYoung at (214) 701-4313 or via email at <u>donna.j.deyoung@cbp.dhs.gov</u>. Please also provide an electronic copy of your response to Mr. John Petrilla (<u>john.p.petrilla@cbp.dhs.gov</u>) and Ms. DeYoung. Written correspondence may be submitted by mail to the following address: U.S. Customs and Border Protection, 24000 Avila Road, Suite 5020, Laguna Niguel, CA 92677, Attn: John Petrilla.

We appreciate your continued cooperation and support.

Sincerely,

JOHN P PETRILLA Digitally signed by JOHN P PETRILLA Date: 2023.06.08 12:47:55 -07'00'

John Petrilla Execution Team | Energy and Environmental PMO Office of Facilities and Asset Management U.S. Customs and Border Protection

Enclosure: Map of Project Area

Mr. McAdams Page 4

Enclosure: Map of Project Area.



1300 Pennsylvania Avenue, NW Washington, DC 20229



U.S. Customs and Border Protection

June 08, 2023

Governor E. Silvas Ysleta del Sur Pueblo 119 S Old Pueblo Rd Ysleta del Sur Pueblo, TX 79907

SUBJECT: Notification of Proposed Undertaking - U.S. Customs and Border Protection, Eagle Pass Joint Processing Center (JPC), Maverick County, Texas

Dear Governor Silvas:

Pursuant to Section 106 of the National Historic Preservation Act (54 U.S.C. § 306108) and its implementing regulations (36 C.F.R Part 800), U.S. Customs and Border Protection (CBP), an agency within the Department of Homeland Security (DHS), is transmitting this letter and enclosures to initiate consultation and identify historic properties for the above referenced Undertaking.

Description of Undertaking

DHS proposes to purchase 62.76 acres of land and to construct, operate, and maintain a JPC to support humanitarian efforts along the Southwest Border. The Undertaking is near Eagle Pass, Texas on land currently leased by CBP for the existing North Eagle Pass soft-sided processing facility.

The Undertaking is needed to provide additional processing facilities and aid in humanitarian efforts along the Southwest border by ensuring the security, placement, and successful transition of migrants and refugees. This multi-agency facility would be used by DHS, DHS Components, and potentially other Federal agencies as appropriate.

Area of Potential Effects

Pursuant to National Historic Preservation Act regulations, 36 C.F.R §§ 800.4(a)(1) and 800.16(d), CBP has defined the Area of Potential Effects (APE) for both above-ground and below-ground historic or cultural resources as the entire 62.76-acre tract of the larger 153-acre parent tract owned by Maverick County. The proposed construction of a permanent JPC would be located at 223 Fire Fly Lane, Eagle Pass, Texas 78852 on the southern side of State Highway (SH) 131 and northeastern side of U.S. Highway (Hwy) 277 in Maverick County, Texas. Currently, CBP is using portions of the APE for a soft-sided processing facility.

The western and northwestern boundary of the APE is marked by previously developed areas consisting of the Maverick County Emergency Operations Center, a paved parking lot, and multiple permanent structures including residential structures. The eastern boundary of the APE is marked by an in-use water treatment facility. The APE is bounded to the northeast by an area

Governor Silvas Page 2

previously used as a large gravel borrow pit. A total of 25.7 acres of the proposed project area have been previously disturbed by the construction of the in-use soft-sided processing facility.

Identification and Evaluation of Historic Resources

Based on a Class I cultural resource records review, no previously conducted cultural resource surveys are within one-half mile of the APE. In addition, no previously recorded cultural resource sites have been identified within one-half mile of the APE. CBP contracted with Dawson Solutions, LLC. (DAWSON) to perform a Phase III (100% pedestrian) cultural resources survey of the APE.

As a result of the survey, four isolated occurrences/artifact (IO), one isolated feature (IF), and one newly recorded cultural resources site were identified. The identified IOs consist of four historic sanitary cans; the IF consists of the remains of a cattle corral. No additional features or artifacts were identified in association with the four IOs that were recorded. Similarly, no artifacts were identified in association with the identified cattle corral. Based on the lack of information potential and integrity of the remaining feature, neither the IOs nor the IF are considered archaeologically significant and are recommended ineligible for inclusion on the National Register of Historic Places (NRHP).

Some or all of the Project Area is located within 1,100 acres of the former Eagle Pass Auxiliary Airport (Airfield) which is listed as a Formerly Used Defense Site. The land, ultimately transferred to Maverick County, was previously used by Laughlin Air Force Base as a training site on and off from the 1940s through 1995 when it was deemed excess. The original Trap and Skeet Range (or Skeet Range) consisted of 55 acres. Known or suspected munitions associated with the range include only small arms ammunition which are cartridges ranging in size from .22 caliber to 30 millimeters. Cartridges are intended for various types of handheld or mounted weapons including rifles, pistols, revolvers, machine guns, and shotguns.

In association with the above-described Skeet Range, one historic-age site (41MV422) was recorded during the investigation. The site consists of three semi-circular concrete pathways that make up individual skeet fields. Based on the historic records, the identified skeet fields pre-date 1947. The three skeet fields were previously part of a larger skeet range comprised of eight skeet fields. No artifacts were identified in association with the documented features. Furthermore, the identified skeet field has been heavily disturbed by previous land development. Based on the lack of information potential, and integrity of the remaining features, the site is not considered archaeologically significant and is recommended ineligible for inclusion on the NRHP.

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Governor Silvas Page 3

Request for Comment

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We appreciate your continued cooperation and support.

Sincerely,

JOHN P PETRILLA Digitally signed by JOHN P PETRILLA Date: 2023.06.08 12:48:16 -07'00'

John Petrilla Execution Team | Energy and Environmental PMO Office of Facilities and Asset Management U.S. Customs and Border Protection

Enclosure: Map of Project Area

Governor Silvas Page 4

Enclosure: Map of Project Area.



1300 Pennsylvania Avenue, NW Washington, DC 20229



U.S. Customs and Border Protection

June 08, 2023

War Captain Javier Loera Ysleta del Sur Pueblo; THPO 119 S Old Pueblo Rd Ysleta del Sur Pueblo, TX 79907

SUBJECT: Notification of Proposed Undertaking - U.S. Customs and Border Protection, Eagle Pass Joint Processing Center (JPC), Maverick County, Texas

Dear War Captain Loera:

Pursuant to Section 106 of the National Historic Preservation Act (54 U.S.C. § 306108) and its implementing regulations (36 C.F.R Part 800), U.S. Customs and Border Protection (CBP), an agency within the Department of Homeland Security (DHS), is transmitting this letter and enclosures to initiate consultation and identify historic properties for the above referenced Undertaking.

Description of Undertaking

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The western and northwestern boundary of the APE is marked by previously developed areas consisting of the Maverick County Emergency Operations Center, a paved parking lot, and multiple permanent structures including residential structures. The eastern boundary of the APE is marked by an in-use water treatment facility. The APE is bounded to the northeast by an area

War Captain Loera Page 2

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War Captain Loera Page 3

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We appreciate your continued cooperation and support.

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JOHN P PETRILLA Digitally signed by JOHN P PETRILLA Date: 2023.06.08 12:48:33 -07'00'

John Petrilla Execution Team | Energy and Environmental PMO Office of Facilities and Asset Management U.S. Customs and Border Protection

Enclosure: Map of Project Area

War Captain Loera Page 4

Enclosure: Map of Project Area.



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APPENDIX B

JPC Site Plan

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SITE LEGEND



Project TIBE DEPARTMENT OF HOMELAND SECURITY CUSTOMS AND BORDER PROTECTION JOINT PROCESSING CENTER DESIGN STANDARD



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APPENDIX C

Biological Survey Report



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March 2023

Final

Biological Survey Report

Proposed Joint Processing Center, 223 Fire Fly Lane Eagle Pass, Maverick County, Texas

Department of Homeland Security U.S. Customs and Border Protection



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- **Appendix C.** U.S. Fish and Wildlife Service Information for Planning and Consultation Threatened and Endangered Species, Migratory Birds, and Critical Habitat List
- Appendix D. Texas Parks and Wildlife Department Maverick County, Texas List of Rare, Threatened, and Endangered Species

ACRONYMS AND ABBREVIATIONS

| AMSL | above median sea level |
|--------|---|
| AOR | Area of Responsibility |
| CBP | U.S. Customs and Border Protection |
| CFR | Code of Federal Regulations |
| CWA | Clean Water Act |
| DAWSON | Dawson Solutions, LLC |
| DRT | Del Rio Sector |
| EA | Environmental Assessment |
| ESA | Endangered Species Act |
| FEMA | Federal Emergency Management Agency |
| FIRM | Flood Insurance Rate Map |
| IPaC | Information for Planning and Consultation |
| JPC | Joint Processing Center |
| MBTA | Migratory Bird Treaty Act |
| NEPA | National Environmental Policy Act |
| NWI | National Wetland Inventory |
| NRCS | Natural Resources Conservation Service |
| SH | State Highway |
| TPWD | Texas Parks and Wildlife Department |
| TXNDD | TPWD Natural Diversity Database |
| USACE | U.S. Army Corps of Engineers |
| USDA | U.S. Department of Agriculture |
| USFWS | U.S. Fish and Wildlife Service |
| USGS | U.S. Geological Service |
| WSS | Web Soil Survey |
| WOTUS | Waters of the United States |

1.0 INTRODUCTION

Dawson Solutions, LLC. (DAWSON) was contracted by the Department of Homeland Security (DHS) to conduct a habitat level pedestrian survey for the presence of sensitive and protected species and habitat suitability; floral and faunal species including the identification of migratory birds, any nesting, roosting, or rearing habitat, and a delineation of any wetlands and Waters of the United States (WOTUS) within the approximately 62.76-acre project area located at 223 Fire Fly Lane, Eagle Pass, Maverick County, Texas 78852 (Site) (**Figures 1 and 2**). DHS plans to acquire the land to construct a new, permanent multi-agency facility known as a Joint Processing Center (JPC) to support humanitarian efforts along the Southwest border. The survey was conducted on December 14 and 15, 2022. This Biological Survey Report presents the results of the surveys conducted along with the following:

- Appendix A presents relevant figures.
- Appendix B presents a comprehensive photograph log.
- Appendix C provides the U.S. Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC) Threatened and Endangered Species, Migratory Birds, and Critical Habitat List.
- Appendix D provides the Texas Parks and Wildlife Department (TPWD) Maverick County, Texas List of Rare, Threatened, and Endangered Species.

1.1 PROPOSED PROJECT

The proposed 62.76-acre Site includes approximately 25.7 acres of land currently used as the North Eagle Pass soft-sided processing facility. The 62.76-acre Site is part of a larger parcel consisting of 153.82 acres. DHS is planning to acquire the 62.76-acre Site for the Proposed Action to construct, operate, and maintain the JPC and eventually replace the current temporary soft-sided processing facility. The Site has an address of 223 Fire Fly Lane, Eagle Pass, Maverick County, Texas 78852 and is located on the south side of State Highway (SH) 131 and northeast side of U.S. Highway (Hwy) 277. The Site exhibits little topographic relief and is at an elevation of approximately 850 feet above median sea level (AMSL) (**Figure 3**).

1.2 DESCRIPTION OF THE PROPOSED PROJECT

DHS requires environmental planning support to develop an environmental assessment (EA) for the construction, operation, and maintenance of a JPC to support humanitarian efforts along the southwest border. The Proposed Action requires an EA and supporting documentation to address the requirements of the National Environmental Policy Act (NEPA), Endangered Species Act (ESA), other Federal environmental laws, regulations, and executive orders, as well as DHS Instruction 023-01-001-01, and CBP environmental planning requirements.

2.0 BACKGROUND RESEARCH

DAWSON conducted a historical literature search to identify and collect information necessary to complete the field surveys. This included reviewing sources of information on topography, wetlands, surface waters, soils, vegetation communities, threatened and endangered species, critical habitat, and fauna.

The following data sources were reviewed prior to conducting the field surveys:

- Publicly available historical and recent aerial photographs;
- U.S. Geological Survey (USGS) topographic maps for the Site and vicinity (Quemado SE, TX Quadrangle, 7.5-Minute Series);
- USFWS IPaC list of threatened and endangered species and critical habitat for the Site;
- TPWD listed threatened and endangered species wildlife and plant lists for Maverick County, Texas;
- TPWD Natural Diversity Database (TXNDD);
- TPWD Ecological Analytical Mapper;
- inaturalist.org wildlife and plant occurrences;
- ebird.org bird occurrences;
- NatureServe Explorer Pro;
- Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM);
- USGS National Hydrography Dataset;
- USFWS National Wetlands Inventory (NWI) map;
- U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Web Soil Survey (WSS), soil descriptions and maps;
- 1987 U.S. Army Corps of Engineers (USACE) Wetlands Delineation Manual (Technical Report Y-87-1); and
- Regional Supplement to the USACE Wetland Delineation Manual: Great Plains Region (Version 2.0).

2.1 **REGULATORY REVIEW**

Section 404 of the Clean Water Act

Section 404 of the Clean Water Act (CWA), also known as Federal Water Pollution Control Act Amendments of 1972, was enacted in 1972 to restore and maintain clean and healthy waters. At the time of this final report, the US Environmental Protection Agency and USACE had announced the final "Revised Definition of Waters of the United States" rule (the 2023 rule), which became effective March 20, 2023. Until further notice, however, federal CWA jurisdiction in Texas will continue to be determined under the pre-2015 regulatory regime, which refers to the USACE 1986 definition of WOTUS.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act of 1918 (16 U.S.C. 703-712) (MBTA) implemented four international conservation treaties that the U.S. entered into with Canada, Mexico, Japan, and Russia. It is intended to ensure the sustainability of populations of all protected migratory bird species. The MBTA prohibits the take (including killing, capturing, selling, trading, and transport) of protected migratory bird species without prior authorization by the Department of Interior USFWS.

The list of migratory bird species was updated in 2020 and is found in the Code of Federal Regulations (CFR) under Title 50 Part 10.13 (10.13 list). A migratory bird species is included on the list if it meets one or more of the following criteria:

- It occurs in the United States or U.S. territories as the result of natural biological or ecological processes and is currently, or was previously listed as, a species or part of a family protected by one of the four international treaties or their amendments.
- Revised taxonomy results in it being newly split from a species that was previously on the list, and the new species occurs in the United States or U.S. territories as the result of natural biological or ecological processes.
- New evidence exists for its natural occurrence in the United States or U.S. territories resulting from natural distributional changes and the species occurs in a protected family.

3.0 ENVIRONMENTAL SETTING

3.1 ECOLOGICAL REGION

According to the Description of the Ecoregions of the United States compiled by Robert G. Bailey of the U.S. Forest Service in 1995, the Site is located within the Chihuahuan Desert Province (identifier code number 321). Within this Province, the only permanent streams are a few large rivers that originate in humid provinces. The Rio Grande and Pecos rivers and a few of their larger tributaries are the only perennial waters. The 85,000-square mile province has undulating planes with elevations near 4,000 ft., from which somewhat isolated mountains rise 2,000 to 5,000 feet AMSL. Extensive dunes of silicon sand cover parts of the province. The climate of the Chihuahuan Desert is characterized by long lot summers and short winters where temperatures may fall below freezing for a brief time. The climate is notably arid with extremely dry spring and summers. Mean annual precipitation has been reported as less than 6 inches in the Province; however, the current average annual rainfall in Eagle Pass is 20 inches (NPS 2022).

Thorny shrubs are typical of the Chihuahuan Desert. They frequently grow in open stands, but sometimes form low, closed thickets. In many places, they are associated with short grass, such as grama. Extensive arid grasslands cover most of the high plains of the province. On deep soils, honey mesquite is often the dominant plant. Frequently observed vegetation include prickly pear, as well as yuccas and creosote bush. Creosote bush is especially common on gravel fans (Bailey 1995).

TPWD identifies the region as the South Texas Plains and brush country. The primary vegetation consists of thorny brush such as mesquite, acacia, and prickly pear mixed with areas of grassland. According to TPWD, the average annual rainfall of 20 to 32 inches increases from west to east. Average monthly rainfall is lowest during winter (January), and highest during spring (May or June) and fall (September). Summer temperatures are high, with very high evaporation rates. Soils of the region are alkaline to slightly acidic clays and clay loams. The deeper soils support taller brush, such as mesquite and spiny hackberry, whereas short, dense brush characterizes the shallow caliche soils. Although many land changes have occurred in this region, the Brush Country remains rich in wildlife and a haven for many rare species of plants and animals. It is home for semi-tropical species that occur in Mexico, grassland species that range northward, and desert species commonly found in the Trans-Pecos (TPWD 2023).

3.2 STATE ECOSYSTEM ANALYTICAL MAPPING

TPWD maintains an Ecosystem Analytical Mapper, which provides ecoregion and vegetation types for any area in the state (TPWD 2023). The following Texas Ecological Systems were identified at the Site (**Table 1**):

| South Texas: Shallow Shrubland | 15 | 24 | Native Rangeland/Brush | Discontinuous canopy of shrubs and small trees. Species include mesquite, guajillo, blackbrush, cenizo. Succulents such as yucca species, sotol, can be important components. |
|---|------|----|---------------------------|--|
| Urban Low Density | 20 | 33 | Other | The type includes areas that are built-up but not entirely covered by impervious cover. |
| South Texas: Shallow Dense Shrubland | 9 | 14 | Native Rangeland/Brush | Includes species such as cenizo, blackbrush, guajillo, and mesquite that form a dense, low canopy. A diversity of shrubs may be present. |
| South Texas: Ramadero Shrubland | 5 | 7 | Bottomland/ Riparian | This shrubland is mapped in narrow bands along upland drainages. Common shrubs or small trees include mesquite, huisache, sugar hackberry, blackbrush, and granjeno. |
| South Texas: Shallow Sparce Shrubland | 0.17 | 1 | Native Rangeland/Brush | This shrubland includes grass/shrub mixes. Common grasses include Kleberg bluestem, King Ranch bluestem, buffelgrass, threeawns, buffalograss, Texas grama, and hairy tridens. |
| South Texas: Clayey Mesquite Mixed Shrubland | 5 | 8 | Native Rangeland/Brush | Soils range from clayey to loamy in this shrubland. This is mapped as a discontinuous canopy of shrubs and small trees. Species such as mesquite, blackbrush, huisache, granjeno, sugar hackberry, brasil, guajillo, blackbrush, lotebush, pricklypear, and whitebrush are common components. Buffelgrass is a common herbaceous dominant. |
| South Texas: Ramadero Dense Shrubland | 3 | 5 | Bottomland/ Riparian | This type is mapped as narrow bands along upland drainages. Common small trees or shrubs include mesquite, huisache, granjeno, sugar hackberry, retama, palo verde, whitebrush, colima, brasil, desert olive, and lotebush. |
| South Texas: Ramadero Woodland | 3 | 4 | Bottomland/ Riparian | This type is also mapped as narrow bands along upland drainages. Common small trees include mesquite, huisache, granjeno, sugar hackberry, and retama. Common shrubs include those in the Ramadero Dense Shrubland type. |
| South Texas: Clayey Blackbrush Mixed Shrubland | 2 | 3 | Native Rangeland/Brush | This ecological system is a relatively dense, tall, and diverse shrublands with species such as blackbrush, mesquite, granjeno, guajillo, guayacan, whitebrush, lotebush, amargosa, brasil, and/or colima. |
| Urban High Intensity | 0.01 | 1 | Other | Describes built-up areas and wide transportation corridors that are dominated by impervious cover. |

Table 1: Texas Ecological Systems Mapped at the Site

Total62100Notes: Acreages and percentages of the site are approximate.Source: https://tpwd.texas.gov/gis/team/# (TPWD 2023).

3.3 SOILS

DAWSON reviewed soil survey maps accessed through the USDA NRCS Web Soil Survey prior to conducting the field surveys. Three soil types were identified at the Site (**Figure 4**).

The dominant soil type at the Site is mapped as Jiminez association, rolling. This soil occurs in the southern and northern parts of the Site. Following former intermittent drainage corridors that cross the Site the Elindio association, nearly level soil is mapped. Finally, the Site is underlain with Darl association, nearly level in the central part of the Site. The soil series descriptions and drainage classifications for the Site are provided in **Table 2**.

| Symbol | Soil Name | Percent of the Site | Slope Percent | Drainage Class | Hydrologic Soil Group | Farmland Classificati on | Hydric |
|--------|---|------------------------|------------------|-------------------|--------------------------|---|--------|
| JZD | Jiminez association, rolling | 37% | 1-12 | Well Drained | D | Not Prime Farmland | No |
| EOA | Elindio association, nearly level | 36% | 0-3 | Well Drained | В | Prime Farmland, if irrigated | No |
| DRA | Darl association, nearly level | 27% | 0-3 | Well Drained | D | Farmland of statewide importance, if irrigated | No |

Table 2. Soil Types at the Site

Source: NRCS 2022

Group B = Soils that have moderately low runoff potential when thoroughly wet. Group B soils have a moderate infiltration rate when thoroughly wetted and consist chiefly of moderately deep to deep, moderately well to well drained soils with moderately fine to moderately coarse textures. These soils typically have between 10 -20 percent clay and 50-90 percent sand and have loamy sand or sandy loam textures.

Group D = Soils that have a high runoff potential when thoroughly wet. Water movement through the soils is restricted or very restricted. These soils typically have greater than 40 percent clay, less than 50 percent sand, and have clayey textures.

3.4 HYDROLOGY

The Site is approximately 2 miles east of the Rio Grande River. An unnamed canal is located approximately 3000-feet west of the Site that appears to terminate at the hydro power plant in Eagle Pass. The Site exhibits little topographic relief and is at an elevation of approximately 850 feet above mean sea level. Due to off-site and recent onsite disturbances, at this time any surface hydrology present on the Site appears to originate from precipitation. According to TPWD, total annual rainfall for the area is approximately 21 inches.

3.5 NATIONAL WETLANDS INVENTORY

According to USFWS's NWI mapping (**Figure 5**), a palustrine wetland is mapped offsite at the adjacent wastewater treatment plant abutting and southeast of the Site. Intermittent waterways are waterways in which flow periodically ceases or that can dry completely. Due to recent and historical offsite and onsite disturbances there are no longer any intermittent streams on the Site. A palustrine wetland is mapped offsite at the adjacent wastewater treatment plant abutting and southeast of the Site. This feature appears to be one of the open wastewater treatment tanks and is not a wetland. Wetland and WOTUS-related site conditions are further discussed in Section 5.3.

3.6 FEMA FLOODPLAIN

According to the FEMA FIRM, Map Number 48323C0325D for City of Eagle Pass, Texas and Incorporated Areas, effective 04/04/2011, the Site is mapped in Zone X, which is an area of minimal flood hazard (FEMA 2022) (**Figure 6**).

3.7 FEDERAL THREATENED AND ENDANGERED SPECIES

Table 3 below includes the USFWS IPaC list of the two birds and one insect that has the potential to occur at or in the vicinity of the Site. There is no habitat on the Site for piping plover (*Charadrius melodus*) or red knot (*Calidris canutus rufa*), therefore, these species are not likely to occur.

While milkweed that would serve as host plants for the monarch butterfly (*Danaus plexippus*) were not observed at the Site, other nectar plants could be a source for food for migrating monarch butterflies, including Texas Lantana (*Lantana urticoides*) and common sunflower (*Helianthus annuus*), which were observed flowering and in good abundance during the survey. Based on this, there is occasional habitat opportunities of native floral resources (nectar plants) at the Site to support foraging for the monarch butterfly, and Eagle Pass is a historically important fall and spring flyway for monarch butterfly migration. The monarch butterfly is currently a candidate species under Section 7 of the ESA, and is not yet proposed for listing; therefore, consultation with USFWS would not be required if a project at the Site was proposed which might impact suitable habitat for the species. A copy of the IPaC list is provided in **Appendix C**.

| Common Name | Scientific Name | Status | Critical Habitat | Habitat Description | Suitable Habitat in Project Area |
|----------------------|--------------------------|-------------------------|---|---|--|
| Piping Plover | Charadrius melodus | Federally Endangered | Yes, but does not overlap the Site | Sandy beaches, sand flats, and mudflats along coastal areas. | No |
| Red Knot | Calidris canutus rufa | Federally Endangered | Yes, but does not overlap the Site | Muddy or sandy coastal areas, bays and estuaries, and tidal flats. | No |
| Monarch Butterfly | Danaus plexippus | Candidate | No | Fields, Roadside areas, open areas, urban gardens with milkweed and flowering plants. | No |

 Table 3. Federally Endangered, Threatened and Candidate Species and their Potential to Occur at the Site

3.8 STATE THREATENED AND ENDANGERED SPECIES

TPWD Wildlife Habitat Assessment Program maintains a county list of plants and wildlife designated extirpated, endangered, threatened, potentially threatened, species of concern, and special interest. The county list for Maverick County is included in **Appendix D** (TPWD 2023a).
3.9 ELEMENTAL OCCURRENCES

DAWSON reviewed publicly available data from TXNDD of elemental occurrences. DAWSON also reviewed NatureServe Explorer, eBird, and iNaturalist. Each data application provides information regarding species occurrences and/or their habitats.

TXNDD data requires a formal request of the agency and requests generally take five business days to complete. According to publicly available resources made available by TPWD, there are no critical habitats, rare areas, Southern Great Plains Crucial Habitat, or Land and Water Resources Conservation and Recreation Plan Sites at the Site.

NatureServe Explorer is a network of organizations that provides data on species and ecosystems for planning, assessment, and informational purposes. The reporting area is large and encompasses many different habitats. According to the NatureServe report, there are two federally listed species that have occurred in the reporting area (343 square mile hexagon). These species include Rio Grande Shiner (*Notropis jemezanus*) and Ocelot (*Leopardus pardalis*). Dates of these occurrences are not reported. The Rio Grande shiner would not occur since there are no aquatic habitats at the Site, and the ocelot is unlikely to occur due to the activities and highly disturbed nature of a part of the Site.

eBird is maintained by the Cornell Lab of Ornithology and provides a public platform for birders to report bird distribution, abundance, habitat use, and other trends in a scientific framework. A total of 103 avian species have been observed at the "Radar Base WTP & Firefly Lane," which is listed as an eBird Hotspot Location. The Radar Base WTP & Firefly Lane location appears to be the wastewater treatment plant immediately adjacent to the Site. These sighting were reported between April 30, 2019 and March 19, 2023. All of the species identified at the Radar Base WTP & Firefly Lane location have the designation of "least concern" indicating the species observed are common species that are considered abundant to stable in population and distribution (ebird 2023).

Similar to eBird, inaturalist is a public platform to document observations of flora and fauna. It is maintained by California Academy of Sciences and National Geographic Society. No observations were documented at or nearby the Site.

4.0 METHODOLOGY

The desktop review of the project area and vicinity identified three federally listed species whose potential to occur needed to be evaluated within the project area. A site visit was conducted to identify suitable habitat for special-status species. Habitat conditions observed in the Project Area were used to evaluate the potential for occurrence of special-status species based on these surveys.

The biological resources survey of the approximately 62.76-acre parcel was conducted on December 14 and 15, 2022 by DAWSON team members Karen Stackpole and Nathan Baldwin. DAWSON surveyed the project area via equally spaced 15-meter-wide parallel pedestrian transects or meandering pedestrian surveys in some areas and recorded site conditions, and any wildlife or signs of wildlife, or plant species observed. The ground surface along and between transects was examined for sightings and evidence of biological resources. Woody vegetation was inspected for the presence of nests. The interior of the soft-sided facility was also inspected. An Arrow 100 Submeter Global Navigation Satellite System by EOS Positioning Systems was used to record any features.

A survey to delineate the boundary of any potential wetland and WOTUS was also conducted on December 14 and 15, 2022, in accordance with the USACE 1987 Wetland Delineation Manual (USACE 1987) and the Regional Supplement to the USACE Wetland Delineation Manual: Great Plains Region (USACE 2012). Wetland indicators as described by USACE were used to assess the presence of wetlands.

Photographs were taken to show conditions within the Project Area and to document sensitive natural resources and other natural resources findings (**Appendix B**). DAWSON did not conduct species specific protocol surveys for any threatened or endangered species within the project area.

5.0 RESULTS

5.1 FLORA

The Site totals 62.76 acres but approximately 25.7 acres were developed and in-use as the softsided processing facility. The ground surface in the developed/fenced area, and areas outside the fence line were observed to be graded and in many areas gravel was applied to the ground surface. An unpaved access road was located at the northern entrance, which split into two and provided access to the fenced soft-sided processing facility and to the eastern side of the Site. One other access road was observed surrounding the soft-sided processing facility.

The remainder of the Site was observed to be rangeland. Vegetation was generally dense, but pockets of bare ground were observed. The vegetation at the Site is characteristic of the Chihuahuan desert scrub vegetation community, which covers 32.6 acres of the Site and is depicted in **Figure 7**. Vegetation observed at the Site is provided in **Table 4** below.

| Common Name | Scientific Name | Growth Form |
|--------------------|----------------------------|-------------|
| Honey Mesquite | Prosopis glandulosa | Tree |
| Bluewood | Condalia hookeri | Shrub |
| Guajillo | Senegalia berlandieri | Shrub |
| Palo Verde | Parkinsonia Texana | Shrub |
| Prickly Leaf | Thymophylla acerosa | Shrub |
| Sagebrush | Artemisia tridentata | Shrub |
| Soapbush | Guaiacum angustifolium | Shrub |
| Spiny Hackberry | Celtis ehrenbergiana | Shrub |
| Texas Lantana | Lantana urticoides | Shrub |
| Texas Sage | Leucophyllum frutescens | Shrub |
| Christmas Cholla | Cylindropuntia leptocaulis | Succulent |
| Horse Crippler | Echinocactus texensis | Succulent |
| Pitaya | Echinocereus enneacanthus | Succulent |
| Prickly Pear | Opuntia Mill spp. | Succulent |
| Yucca | Yucca spp. | Succulent |
| Annual Ragweed | Ambrosia artemisiifolia | Forb |
| Common Sunflower | Helianthus annuus | Forb |
| Copper Globemallow | Sphaeralcea angustifolia | Forb |
| Gumhead | Gymnosperma glutinosum | Forb |
| Iron Cross | Oxalis tetraphylla | Forb |
| Verbena | Glandularia sp. | Forb |
| Tickseed | Coreopsis tinctoria | Forb |
| Prairie Tea | Croton monanthogynus | Forb |
| Woodsorrel | Oxalis stricta | Forb |
| Buffelgrass | Cenchrus ciliaris | Grass |
| Canada Rye | Elymus canadensis | Grass |

Table 4. Vegetation Observed During the Natural Resource Survey at the Site

| Common Name | | |
|---|------------------------|-------|
| Prairie Junegrass | Koeleria macrantha | Grass |
| Purple Three-Awn | Aristida purpurea | Grass |
| Windmill Grass | Chloris cucullata | Grass |
| Side-Oats Grama | Bouteloua curtipendula | Grass |
| Note: Scientific name sources include: https://rangeplants.tamu.edu/plant; | | |
| https://www.wildflower.org/collections/collection.php?collection=TX_west; | | |
| https://tpwd.texas.gov/publications/pwdpubs/pwd_bn_w7000_0120/reference/scientific_names/ | | |

5.2 FAUNA

Table 5 lists the species that were directly observed or signs of them observed during the survey.

| Common Name | Scientific Name | | |
|---------------------------|-------------------------|--|--|
| Vertebrates | | | |
| White-Tailed Deer | Odocoileus virginianus | | |
| Desert Cottontail | Sylvilagus audubonii | | |
| Common Grackle | Quiscalus quiscula | | |
| Roadrunner | Geococcyx californianus | | |
| White-winged Dove | Paloma ala blanca | | |
| Red-winged Blackbird | Agelaius phoeniceus | | |
| Mourning Dove | Paloma huilota | | |
| Cowbird | Molothrus ater | | |
| Common Sparrow | Passer domesticus | | |
| Invertebrates | | | |
| Yellow Sulfur (butterfly) | Anteos maerula | | |
| Orange Sulfur (butterfly) | Colias eurytheme | | |

 Table 5. Wildlife Observed During the Natural Resource Survey at the Site

5.3 WETLAND AND WATERS OF THE U.S.

The NWI map lacks sufficient wetland hydrology indicators in almost all areas of the Site that have not undergone significant ground disturbance. There is an exception in two small sparsely vegetated concave surface areas where evidence of hydrology in the form of cracked ground surface is visible; however, soils were dry, crumbly, and did not show field indicators of hydric soils including a positive matrix or chroma. Water appears to collect in these areas in times of high precipitation; however, there is no hydrologic connection.

Flow of the former intermittent riverine system historically occurred from east to west across the nearly level terrain of the Site, toward the Rio Grande. Soils appear to have had slow permeability prior to disturbance. Excavations for a borrow pit located immediately east and bordering the site and the temporary construction of the soft-sided facility onsite appear to have significantly disrupted the flow of both historical intermittent stream systems. As a result, there is no longer any natural flow of water across the Site. In addition, a two-track road is located along the east border of the Site that prevents surface flow.

It was noted that there was recently installed silt fencing observed in two areas at the Site. In one area site fencing was observed along approximately 20 feet of the western Site boundary. The fencing along the west Site boundary contained a low-lying area immediately outside the project boundary. The site fencing appeared to have been established for stormwater silt retention. The second area was along approximately 10 feet of the northern side of a newly constructed access road located on the north side of the fenced soft-sided processing facility. The silt fencing appears to have been established when the soft-sided facility was constructed for stormwater retention and to prevent flooding in the access road. Both of these areas were within the former intermittent stream systems, however, with recent on- and off-site disturbances to the ground surface, they are no longer functioning as wetlands.

5.4 NESTING BIRD SURVEY

During the survey DAWSON examined all areas of the Site for existing/former nests or evidence of avian species. Breeding season in the area of Eagle Pass is approximately March to September. DAWSON did not observe any former nests in shrubs or trees. DAWSON observed a pair of flycatchers calling to each other, white-winged dove, mourning dove, red-winged blackbird, and cactus wren during the survey; however, the survey was conducted outside of the breeding season.

6.0 CONCLUSIONS

Due to the lack of suitable habitat, there is no potential for the threatened and endangered species listed to be found at the Site. Existing populations of these species are not known to occur at the Site. Therefore, there is no potential for any of these species to be impacted by DHS activities. It is determined that DHS activities would have no effect on the potential federally listed species.

During the field surveys conducted on December 14 and 15, 2022, DAWSON scientists found common flora and fauna at the site such as birds, butterflies, small mammals, deer, and vegetation common in the area. No jurisdictional wetlands or WOTUS, or nesting birds were observed within the site boundaries.

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APPENDIX A

FIGURES





uu1.uu5.uu2 - vvA 50-02 DRT Eagle Pass JPC EA\08-Deliverables\GIS Data - Bio\DRT Eagle Pass - Bio.aprx | 1/13/2023 | KathleenKeit





^{001.005.002 -} WA 50-02 DRT Eagle Pass JPC EA\08-Deliverables\GIS Data - Bio\DRT Eagle Pass - Bio.aprx | 1/13/2023 | KathleenKe



005.002 - WA 50-02 DRT Eagle Pass JPC EA\08-Deliverables\GIS Data\Bio\DRT Eagle Pass - Bio.aprx | 5/3/2023 | SamanthaBar



01.005.002 - WA 50-02 DRT Eagle Pass JPC EA\08-Deliverables\GIS Data - Bio\DRT Eagle Pass - Bio.aprx | 1/13/2023 | KathleenKe



.005.002 - WA 50-02 DRT Eagle Pass JPC EA\08-Deliverables\GIS Data\Bio\DRT Eagle Pass - Bio.aprx | 5/3/2023 | SamanthaBartl

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APPENDIX B

PHOTO LOG





Photograph 1. Overview from road facing northeast.



Photograph 2. Overview from road facing north.

Eagle Pass Joint Processing Center 223 Fire Fly Lane, Eagle Pass, Texas Biological Survey Report, DAWSON Task Order Number: 70B01C22F00001393





Photograph 3. Overview from north boundary facing west.



Photograph 4. Overview from east boundary facing south.





Photograph 5. Overview of vegetation in the center of the Site.



Photograph 6. Overview from north boundary facing northeast.





Photograph 7. Overview from center of the site facing the soft-sided processing facility to the south.



Photograph 8. Overview from the center of the Site facing west.

Biological Survey Report, DAWSON Task Order Number: 70B01C22F00001393





Photograph 9. Overview from the central north boundary facing southeast.



Photograph 10. Overview from east boundary facing north.

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APPENDIX C

IPAC - FEDERALLY LISTED SPECIES

IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.



Local office

Texas Coastal Ecological Services Field Office

✓ (281) 286-8282
☑ (281) 488-5882

MAILING ADDRESS 17629 El Camino Real, Suite 211 Houston, TX 77058-3051

PHYSICAL ADDRESS 17629 El Camino Real Houston, TX 77058-3051

NOTFORCONSULTATION

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

- 1. Draw the project location and click CONTINUE.
- 2. Click DEFINE PROJECT.
- 3. Log in (if directed to do so).
- 4. Provide a name and description for your project.
- 5. Click REQUEST SPECIES LIST.

Listed species¹ and their critical habitats are managed by the <u>Ecological Services Program</u> of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries²).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact <u>NOAA Fisheries</u> for <u>species under their jurisdiction</u>.

1. Species listed under the <u>Endangered Species Act</u> are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the <u>listing status page</u> for more information. IPaC only shows species that are regulated by USFWS (see FAQ). 2. <u>NOAA Fisheries</u>, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:

Birds

| NAME | STATUS |
|--|-----------------|
| Piping Plover Charadrius melodus This species only needs to be considered if the following condition applies: Wind related projects within migratory route. | Threatened |
| There is final critical habitat for this species. Your location does not overlap the critical habitat. <u>https://ecos.fws.gov/ecp/species/6039</u> | TION |
| Red Knot Calidris canutus rufa Wherever found This species only needs to be considered if the following condition applies: Wind Related Projects Within Migratory Route | Threatened |
| There is proposed critical habitat for this species. <u>https://ecos.fws.gov/ecp/species/1864</u> | |
| Insects | <u>ςτατί is</u> |
| Monarch Butterfly Danaus plexippus Wherever found | Candidate |

No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/9743

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

There are no critical habitats at this location.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act^{1} and the Bald and Golden Eagle Protection Act^{2} .

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described <u>below</u>.

- 1. The <u>Migratory Birds Treaty Act</u> of 1918.
- 2. The <u>Bald and Golden Eagle Protection Act</u> of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern <u>https://www.fws.gov/program/migratory-birds/species</u>
- Measures for avoiding and minimizing impacts to birds <u>https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds</u>
- Nationwide conservation measures for birds <u>https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf</u>

The birds listed below are birds of particular concern either because they occur on the USFWS Birds of Conservation Concern (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ below. This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the <u>E-bird data mapping tool</u> (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found <u>below</u>.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

Eastern Meadowlark Sturnella magna This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

NAMF

BREEDING SEASON

Breeds Apr 25 to Aug 31

| Long-billed Curlew Numenius americanus This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA <u>https://ecos.fws.gov/ecp/species/5511</u> | Breeds elsewhere |
|--|-------------------------|
| Orchard Oriole Icterus spurius This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA | Breeds Jun 10 to Aug 15 |
| Painted Bunting Passerina ciris This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA | Breeds Apr 25 to Aug 15 |

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 and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

- 1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
- 2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.

3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season (=)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (–)

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

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.



Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

<u>Nationwide Conservation Measures</u> describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure.

To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. <u>Additional measures</u> or <u>permits</u> may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?

The Migratory Bird Resource List is comprised of USFWS <u>Birds of Conservation Concern (BCC)</u> and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the <u>Avian Knowledge</u> <u>Network (AKN)</u>. The AKN data is based on a growing collection of <u>survey</u>, <u>banding</u>, <u>and citizen science</u> <u>datasets</u> and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (<u>Eagle Act</u> requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the <u>Rapid Avian Information Locator (RAIL) Tool</u>.

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the <u>Avian Knowledge Network (AKN)</u>. This data is derived from a growing collection of <u>survey</u>, <u>banding</u>, <u>and</u> <u>citizen science datasets</u>.

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering or migrating in my area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may query your location using the <u>RAIL Tool</u> and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

- 1. "BCC Rangewide" birds are <u>Birds of Conservation Concern</u> (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
- 2. "BCC BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and

3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the <u>Eagle Act</u> requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the <u>Northeast Ocean Data</u> <u>Portal</u>. The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the <u>NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird</u> <u>Distributions and Abundance on the Atlantic Outer Continental Shelf</u> project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the <u>Diving Bird Study</u> and the <u>nanotag studies</u> or contact <u>Caleb Spiegel</u> or <u>Pam Loring</u>.

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to <u>obtain a permit</u> to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAO "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the <u>National Wildlife Refuge</u> system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

There are no refuge lands at this location.

Fish hatcheries

There are no fish hatcheries at this location.

Wetlands in the National Wetlands Inventory (NWI)

Impacts to <u>NWI wetlands</u> 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>U.S. Army Corps of</u> <u>Engineers District</u>.

Wetland information is not available at this time

This can happen when the National Wetlands Inventory (NWI) map service is unavailable, or for very large projects that intersect many wetland areas. Try again, or visit the <u>NWI map</u> to view wetlands at this location.

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.
The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tuberficid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate Federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

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APPENDIX D

STATE OF TEXAS, COUNTY OF MAVERICK THREATENED AND ENDANGERED SPECIES

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Last Update: 1/4/2023

MAVERICK COUNTY

AMPHIBIANS

South Texas siren (Large Form) Siren sp. 1

Aquatic: Mainly found in bodies of quiet water, permanent or temporary, with or without submergent vegetation. Wet or sometimes wet areas, such as arroyos, canals, ditches, or even shallow depressions; aestivates in the ground during dry periods, but does require some moisture to remain. Federal Status: State Status: T SGCN: Y

| Federal Status: | State Status: T | SGCN: Y |
|-----------------|-------------------|----------------|
| Endemic: N | Global Rank: GNRQ | State Rank: S1 |

BIRDS

| bald eagle | Haliaeetus leucocephalus |
|------------|--------------------------|
| | |

Found primarily near rivers and large lakes; nests in tall trees or on cliffs near water; communally roosts, especially in winter; hunts live prey, scavenges, and pirates food from other birds

| Federal Status: | State Status: | SGCN: Y |
|-----------------|-----------------|---------------------|
| Endemic: N | Global Rank: G5 | State Rank: S3B,S3N |

Franklin's gull

Leucophaeus pipixcan

The county distribution for this species includes geographic areas that the species may use during migration. Time of year should be factored intervaluations to determine potential presence of this species in a specific county. This species is only a spring and fall migrant throughout Texas. It does not breed in or near Texas. Winter records are unusual consisting of one or a few individuals at a given site (especially along the Gulf coastline). During migration, these gulls fly during daylight hours but often come down to wetlands, lake shore, or islands to roost for the night.

| Federal Status: | State Status: | SGCN: Y |
|---|-------------------|-----------------|
| Endemic: N | Global Rank: G5 | State Rank: S2N |
| | | |
| golden eagle | Aquila chrysaetos | |
| Habitat description is not available at | this time. | |
| Federal Status: | State Status: | SGCN: Y |
| Endemic: N | Global Rank: G5 | State Rank: S3B |
| | | |

lark bunting

Calamospiza melanocorys

Overall, it's a generalist in most short grassland settings including ones with some brushy component plus certain agricultural lands that include grain sorghum. Short grasses include sideoats and blue gramas, sand dropseed, prairie junegrass (Koeleria), buffalograss also with patches of bluestem and other mid-grass species. This bunting will frequent smaller patches of grasses or disturbed patches of grasses including rural yards. It also uses weedy fields surrounding playas. This species avoids urban areas and cotton fields.

| Federal Status: | State Status: | SGCN: Y |
|-----------------|-----------------|-----------------|
| Endemic: N | Global Rank: G5 | State Rank: S4B |

DISCLAIMER

BIRDS

| mountain plover | Charadrius montanus | | |
|---|--|---|--|
| The county distribution for this specie evaluations to determine potential pre shallow depression; nonbreeding: sho | es includes geographic areas that the species may use during sence of this species in a specific county. Breeding: nests on rtgrass plains and bare, dirt (plowed) fields; primarily insecti | migration. Time of year should be factored into high plains or shortgrass prairie, on ground in vorous. | |
| Federal Status: | State Status: | SGCN: Y | |
| Endemic: N | Global Rank: G3 | State Rank: S2 | |
| | | | |
| Sprague's pipit | Anthus spragueii | | |
| The county distribution for this specie evaluations to determine potential pre weedy fields (AOU 1983), including a | es includes geographic areas that the species may use during sence of this species in a specific county. Habitat during mig grasslands with dense herbaceous vegetation or grassy agricu | migration. Time of year should be factored integration and in winter consists of pastures and altural fields. | |
| Federal Status: | State Status: | SGCN: Y | |
| Endemic: N | Global Rank: G3G4 | State Rank: S3N | |
| western burrowing owl | Athene cunicularia hypugaea | | |
| Open grasslands, especially prairie, pl roosts in abandoned burrows | lains, and savanna, sometimes in open areas such as vacant lo | ots near human habitation or airports; nests and | |
| Federal Status: | State Status: | SGCN: Y | |
| Endemic: N | Global Rank: G4T4 | State Rank: S2 | |
| | | | |
| white-faced ibis | Plegadis chihi | | |
| The county distribution for this specie evaluations to determine potential pre will attend brackish and saltwater hab low trees, on the ground in bulrushes | es includes geographic areas that the species may use during sence of this species in a specific county. Prefers freshwater itats; currently confined to near-coastal rookeries in so-called or reeds, or on floating mats. | migration. Time of year should be factored into marshes, sloughs, and irrigated rice fields, but d hog-wallow prairies. Nests in marshes, in | |
| Federal Status: | State Status: T | SGCN: Y | |
| Endemic: N | Global Rank: G5 | State Rank: S4B | |
| | | | |
| wood stork | Mycteria americana | | |
| The county distribution for this specie evaluations to determine potential pre distichum) or red mangrove (Rhizoph including salt-water; usually roosts co Mexico and birds move into Gulf Stat Texas, but no breeding records since | es includes geographic areas that the species may use during sence of this species in a specific county. Prefers to nest in la ora mangle); forages in prairie ponds, flooded pastures or fie ommunally in tall snags, sometimes in association with other tes in search of mud flats and other wetlands, even those asso 1960. | migration. Time of year should be factored into arge tracts of baldcypress (Taxodium elds, ditches, and other shallow standing water, wading birds (i.e. active heronries); breeds in ociated with forested areas; formerly nested in | |
| Federal Status: | State Status: T | SGCN: Y | |
| Endemic: N | Global Rank: G4 | State Rank: SHB,S2N | |
| FISH | | | |
| headwater catfish | Ictalurus lupus | | |
| Originally throughout streams of the l basin; springs, and sandy and rocky ri | Edwards Plateau and the Rio Grande basin, currently limited ffles, runs, and pools of clear creeks and small rivers. | to Rio Grande drainage, including Pecos River | |
| Federal Status: | State Status: T | SGCN: Y | |
| | DISCLAIMER | | |
| The information on this web applicati data. The data provided are for plann application website for further inform | ion is provided "as is" without warranty as to the currentnes. ing, assessment, and informational purposes. Refer to the Finantion. | s, completeness, or accuracy of any specific requently Asked Questions (FAQs) on the | |

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MAVERICK COUNTY

FISH

| Endemic: N | Global Rank: G3 | State Rank: S1S2 |
|--|---|--|
| longnose dace | Rhinichthys cataractae | |
| Can only be found in the Big Bend powater in gravelly riffles. | ortion of the Rio Grande. Occasionally taken in lakes and cle | ar pools of rivers but prefers clear, flowing |
| Federal Status: | State Status: | SGCN: Y |
| Endemic: N | Global Rank: G5 | State Rank: S2 |
| manantial roundnose minnow | Dionda argentosa | |
| Lower Pecos River, Devils River, Sa | n Felipe and Sycamore creeks. Val Verde County. Headwate | rs and runs of spring-influenced waters. |
| Federal Status: | State Status: | SGCN: Y |
| Endemic: Y | Global Rank: G3 | State Rank: S2 |
| proserpine shiner | Cyprinella proserpina | |
| Limited range includes Devils and lo watershed in western Texas. Associated | wer Pecos rivers, Las Moras, Pinto, and San Felipe creeks, and ted with spring-fed tributaries and spring-runs. May be found | nd Independence Creek in the Rio Grande I in flowing pools, swift runs and riffles. |
| Federal Status: | State Status: T | SGCN: Y |
| Endemic: N | Global Rank: G3 | State Rank: S2 |
| Rio Grande darter | Etheostoma grahami | |
| Essentially restricted to the mainstrea and Dolan, San Felipe and Sycamore | am and spring-fed tributaries of the Rio Grande and the lower creeks. Gravel and rubble riffles | r Pecos River downstream to the Devils River |
| Federal Status: | State Status: T | SGCN: Y |
| Endemic: N | Global Rank: G2G3 | State Rank: S2 |
| Rio Grande shiner | Notropis jemezanus | |
| Rio Grande drainage. Occurs over su | bstrate of rubble, gravel and sand, often overlain with silt | |
| Federal Status: | State Status: T | SGCN: Y |
| Endemic: N | Global Rank: G3 | State Rank: S1 |
| speckled chub | Macrhybopsis aestivalis | |
| Found throughout the Rio Grande and Flowing water over coarse sand and the sand statement of the sand statemen | d lower Pecos River but occurs most frequently between the fine gravel substrates in streams; typically found in raceways | Río Conchos confluence and the Pecos River. and runs. |
| Federal Status: | State Status: T | SGCN: Y |
| Endemic: N | Global Rank: G3G4 | State Rank: S1S2 |
| Tamaulipas shiner | Notropis braytoni | |
| Restricted to the Rio Grande basin in of flowng-water habitats such as runs | Texas including the lower Pecos River. Typically found in la and riffles over gravel, cobble, and sand. | arge rivers and creeks associated with a variety |
| Federal Status: | State Status: T | SGCN: Y |
| | DISCLAIMER | |

| FISH | | | |
|--|---|---|--|
| Endemic: N | Global Rank: G4 | State Rank: S1S2 | |
| Texas shiner | Notropis amabilis | | |
| In Texas, it is found primarily i includes rocky or sandy runs, a | n Edwards Plateau streams from the San Gabri s well as pools. | el River in the east to the Pecos River in the west. Typical habitat | |
| Federal Status: | State Status: | SGCN: Y | |
| Endemic: N | Global Rank: G4 | State Rank: S4 | |
| | INSECTS | | |
| American bumblebee | Bombus pensylvanicus | | |
| Habitat description is not availa | able at this time. | | |
| Federal Status: | State Status: | SGCN: Y | |
| Endemic: | Global Rank: G3G4 | State Rank: SNR | |
| neojuvenile tiger beetle | Cicindela obsoleta neojuvenilis | | |
| Bare or sparsely vegetated, dry | , hard-packed soil; typically in previously distu | rbed areas; peak adult activity in Jul | |
| Federal Status: | State Status: | SGCN: Y | |
| Endemic: | Global Rank: G5T1 | State Rank: SH | |
| | MAMMALS | | |
| black bear | Ursus americanus | | |
| Generalist. Historically found t in desert scrub of Trans-Pecos hardwoods, floodplain forests, | hroughout Texas. In Chisos, prefers higher elev (Black Gap Wildlife Management Area) and Eu upland hardwoods with mixed pine; marsh. Bo | vations where pinyon-oaks predominate; also occasionally sighted dwards Plateau in juniper-oak habitat. For ssp. luteolus, bottomland ttomland hardwoods and large tracts of inaccessible forested areas. | |
| Federal Status: | State Status: T | SGCN: Y | |
| Endemic: N | Global Rank: G5 | State Rank: S3 | |
| cave myotis bat | Myotis velifer | | |
| Colonial and cave-dwelling; als pyrrhonota) nests; roosts in cluz Panhandle during winter; oppor | so roosts in rock crevices, old buildings, carpor sters of up to thousands of individuals; hiberna rtunistic insectivore. | ts, under bridges, and even in abandoned Cliff Swallow (Hirundo tes in limestone caves of Edwards Plateau and gypsum cave of | |
| Federal Status: | State Status: | SGCN: Y | |
| Endemic: N | Global Rank: G4G5 | State Rank: S2S3 | |

DISCLAIMER

MAMMALS

| eastern red bat | Lasiurus borealis | |
|--|--|--|
| Red bats are migratory bats that ar requirement of forests for foliage r coastline. These bats are highly me difficult unless specific migratory North Texas but can occur statewing | e common across Texas. They are mo oosting. West Texas specimens are as obile, seasonally migratory, and practi stopover sites or wintering grounds an de. | st common in the eastern and central parts of the state, due to their sociated with forested areas (cottonwoods). Also common along the ice a type of "wandering migration". Associations with specific habitat is re found. Likely associated with any forested area in East, Central, and |
| Federal Status: | State Status: | SGCN: Y |
| Endemic: N | Global Rank: G3G4 | State Rank: S4 |
| hoary bat | Lasiurus cinereus | |
| Hoary bats are highly migratory, h winter, males tend to remain further are found in unforested parts of the | igh-flying bats that have been noted t er north and may stay in Texas year-ro e state and lowland deserts. Tend to be | hroughout the state. Females are known to migrate to Mexico in the bund. Commonly associated with forests (foliage roosting species) but e captured over water and large, open flyways. |
| Federal Status: | State Status: | SGCN: Y |
| Endemic: N | Global Rank: G3G4 | State Rank: S4 |
| long-tailed weasel | Mustela frenata | |
| Includes brushlands, fence rows, u | pland woods and bottomland hardwoo | ods, forest edges & rocky desert scrub. Usually live close to water. |
| Federal Status: | State Status: | SGCN: Y |
| Endemic: N | Global Rank: G5 | State Rank: S5 |
| mountain lion | Puma concolor | |
| Generalist; found in a wide range | of habitats statewide. Found most freq | uently in rugged mountains & amp; riparian zones. |
| Federal Status: | State Status: | SGCN: Y |
| Endemic: N | Global Rank: G5 | State Rank: S2S3 |
| ocelot | Leopardus pardalis | |
| Restricted to mesquite-thorn scrub chaparral thickets; breeds and raise | and live-oak mottes; avoids open are es young June-November. | as. Dense mixed brush below four feet; thorny shrublands; dense |
| Federal Status: LE | State Status: E | SGCN: Y |
| Endemic: N | Global Rank: G4 | State Rank: S1 |
| southern yellow bat | Lasiurus ega | |
| Relict palm grove is only known T Roosts in dead palm fronds in orna | exas habitat. Neotropical species roos amental palms in urban areas. | sting in palms, forages over water; insectivorous; breeding in late winter. |
| Federal Status: | State Status: | SGCN: Y |
| Endemic: N | Global Rank: G5 | State Rank: S3S4 |

DISCLAIMER

MAMMALS

| Strecker's pocket gopher | Geomys streckeri | |
|--|---|--|
| Underground burrows of deep, sandy more than two litters per year | v soils; feed mostly on vegetation; reproductive data not well | known, but likely breed year round, with no |
| Federal Status: | State Status: | SGCN: Y |
| Endemic: Y | Global Rank: G1Q | State Rank: S1 |
| tricolored bat | Perimyotis subflavus | |
| Forest, woodland and riparian areas a | are important. Caves are very important to this species. | |
| Federal Status: | State Status: | SGCN: Y |
| Endemic: N | Global Rank: G3G4 | State Rank: S2 |
| western hog-nosed skunk | Conepatus leuconotus | |
| Habitats include woodlands, grasslan habitat of the ssp. telmalestes | ds & deserts, to 7200 feet, most common in rugged, roo | cky canyon country; little is known about the |
| Federal Status: | State Status: | SGCN: Y |
| Endemic: N | Global Rank: G4 | State Rank: S4 |
| western spotted skunk | Spilogale gracilis | |
| Brushy canyons, rocky outcrops (rim When inactive or bearing young, occ | rock) on hillsides and walls of canyons. In semi-arid brushla upies den in rocks, burrow, hollow log, brush pile, or under | nds in U.S., in wet tropical forests in Mexico. building. |
| Federal Status: | State Status: | SGCN: Y |
| Endemic: N | Global Rank: G5 | State Rank: S5 |
| white-nosed coati | Nasua narica | |
| Woodlands, riparian corridors and ca forages on ground and in trees; omni- | nyons.Most individuals in Texas probably transients from N vorous; may be susceptible to hunting, trapping, and pet trad | lexico; diurnal and crepuscular; very sociable; |
| Federal Status: | State Status: T | SGCN: Y |
| Endemic: N | Global Rank: G5 | State Rank: S1 |
| | MOLLUSKS | |
| Mexican fawnsfoot | Truncilla cognata | |
| Occurs in large rivers but may also be protected near shore areas such as ba adults. Typically occurs in substrates (Randklev et al. 2017b; Randklev et a | e found in medium-sized streams. Is commonly found in hat nks and backwaters but also at the head of riffles; the latter r of mixed sand and gravel as well as soft unconsolidated sed al. forthcoming). [Mussels of Texas 2019] | bitats with some flowing water, often in nore often supporting both sub-adults and iments. Considered intolerant of reservoirs |
| Federal Status: | State Status: T | SGCN: Y |
| Endemic: N | Global Rank: Gl | State Rank: S1 |

DISCLAIMER

MOLLUSKS

| Salina mucket | Potamilus metnecktayi | |
|---|--|---|
| Occurs in medium to large rivers, w well as under rocks. It occurs in area habitat; not known from reservoirs (| here it may be found in substrates composed of as with slow to moderate current, most often in Randklev et al. 2017b; Randklev et al. forthcon | various combinations of mud, sand, gravel, and cobble, as stable littoral habitats dominated by boulder or bedrock ning). [Mussels of Texas 2019] |
| Federal Status: | State Status: T | SGCN: Y |
| Endemic: N | Global Rank: G1 | State Rank: S1 |
| Texas hornshell | Popenaias popeii | |
| Occurs in small streams to large rive where small-grained material, such a reservoirs (Carman 2007; Inoue et a | ers in slow to moderate current, often residing in as clay, silt, or sand gathers. Can also occur in r l. 2014; Randklev et al. 2017b; Randklev et al. | n rock crevices, travertine shelves, and under large boulders, iffles that are clean swept of soft silt; not known from forthcoming). [Mussels of Texas 2019] |
| Federal Status: LE | State Status: E | SGCN: Y |
| Endemic: N | Global Rank: G1 | State Rank: S1 |
| | REPTILES | |
| Mexican hog-nosed snake | Heterodon kennerlyi | |
| Habitat description is not available a | at this time. | |
| Federal Status: | State Status: | SGCN: N |
| Endemic: | Global Rank: G4 | State Rank: SNR |
| reticulate collared lizard | Crotaphytus reticulatus | |
| Terresstrial: Requires open brush-gr soils; often on scattered flat rocks be | asslands; thorn-scrub vegetation, usually on we slow escarpments or isolated rock outcrops amo | ll-drained rolling terrain of shallow gravel, caliche, or sandy ng scattered clumps of prickly pear and mesquite |
| Federal Status: | State Status: | SGCN: Y |
| Endemic: N | Global Rank: G3 | State Rank: S4 |
| Rio Grande river cooter | Pseudemys gorzugi | |
| Aquatic: Habitat includes rivers and Occupied waters may have a muddy | their more permanent spring-fed tributary strea , sandy, or rocky bottom, and may or may not c | ms, beaver ponds, and stock tanks (Garrett and Barker 1987). ontain aquatic vegetation (Degenhardt et al. 1996). |
| Federal Status: | State Status: | SGCN: Y |
| Endemic: N | Global Rank: G3G4 | State Rank: S2 |
| Tamaulipan spot-tailed earless lizard | Holbrookia subcaudalis | |
| Terrestrial: Habitats include modera open meadows, old and new fields, also, oak-juniper woodlands and me | tely open prairie-brushland regions, particularly graded roadways, cleared and disturbed areas, p squite-prickly pear associations (Axtell 1968, E | r fairly flat areas free of vegetation or other obstructions (e.g., rairie savanna, and active agriculture including row crops); artlett and Bartlett 1999). |
| Endevel States | State States | SCCN. V |

| Federal Status: | State Status: | SGCN: Y |
|-----------------|------------------|----------------|
| Endemic: N | Global Rank: GNR | State Rank: S2 |

DISCLAIMER

REPTILES

| Texas horned lizard | Phrynosoma cornutum | |
|--|---|---|
| Terrestrial: Open habitats with sparse sandy to rocky; burrows into soil, ent pinyon-juniper zone on mountains in | vegetation, including grass, prairie, cactus, scattered brush or ers rodent burrows, or hides under rock when inactive. Occu the Big Bend area. | or scrubby trees; soil may vary in texture from rs to 6000 feet, but largely limited below the |
| Federal Status: | State Status: T | SGCN: Y |
| Endemic: N | Global Rank: G4G5 | State Rank: S3 |
| Texas indigo snake | Drymarchon melanurus erebennus | |
| Terrestrial: Thornbush-chaparral woo croplands. Requires moist microhabit | dland of south Texas, in particular dense riparian corridors. Ats, such as rodent burrows, for shelter. | Can do well in suburban and irrigated |
| Federal Status: | State Status: | SGCN: Y |
| Endemic: N | Global Rank: G5T4 | State Rank: S4 |
| Texas tortoise | Gopherus berlandieri | |
| Terrestrial: Open scrub woods, arid b shallow depressions dug at base of bu under bushes. | rush, lomas, grass-cactus association; often in areas with san sh or cactus; sometimes in underground burrow or under ob | dy well-drained soils. When inactive occupies ject. Eggs are laid in nests dug in soil near or |
| Federal Status: | State Status: T | SGCN: Y |
| Endemic: N | Global Rank: G4 | State Rank: S2 |
| western hognose snake | Heterodon nasicus | |
| Terrestrial: Shortgrass or mixed grass habitats within the arid landscape. Free | prairie, with gravel or sandy soils. Often found associated wequently occurs in shrub encroached grasslands. | vith draws, floodplains, and more mesic |
| Federal Status: | State Status: | SGCN: Y |
| Endemic: N | Global Rank: G5 | State Rank: S4 |
| | DIANTS | |
| | FLANIS | |
| Jones' selenia | Selenia jonesii | |
| Jones' selenia Wet clayey soils of stream margins, p March-April | Selenia jonesii laya lakes, and roadsides, mostly in the western Edwards Pla | ateau; Annual; Flowering Feb-April; Fruiting |
| Jones' selenia Wet clayey soils of stream margins, p March-April Federal Status: | State Status: | ateau; Annual; Flowering Feb-April; Fruiting SGCN: Y |
| Jones' selenia Wet clayey soils of stream margins, p March-April Federal Status: Endemic: Y | Selenia jonesii laya lakes, and roadsides, mostly in the western Edwards Pla State Status: Global Rank: G3 | ateau; Annual; Flowering Feb-April; Fruiting SGCN: Y State Rank: S3 |
| Jones' selenia Wet clayey soils of stream margins, p March-April Federal Status: Endemic: Y silvery wild-mercury | Selenia jonesii laya lakes, and roadsides, mostly in the western Edwards Pla State Status: Global Rank: G3 Argythamnia argyraea | ateau; Annual; Flowering Feb-April; Fruiting SGCN: Y State Rank: S3 |
| Jones' selenia Wet clayey soils of stream margins, p March-April Federal Status: Endemic: Y silvery wild-mercury Among shortgrasses in grasslands or Perennial; Flowering April-June; fruit | Selenia jonesii laya lakes, and roadsides, mostly in the western Edwards Pla State Status: Global Rank: G3 Argythamnia argyraea open shrublands on which whitish clay soils, particularly tho t may persist until fall | ateau; Annual; Flowering Feb-April; Fruiting SGCN: Y State Rank: S3 ose derived from the Yegua Formation; |
| Jones' selenia Wet clayey soils of stream margins, p March-April Federal Status: Endemic: Y silvery wild-mercury Among shortgrasses in grasslands or Perennial; Flowering April-June; frui Federal Status: | Selenia jonesii laya lakes, and roadsides, mostly in the western Edwards Pla State Status: Global Rank: G3 Argythamnia argyraea open shrublands on which whitish clay soils, particularly tho t may persist until fall State Status: | ateau; Annual; Flowering Feb-April; Fruiting SGCN: Y State Rank: S3 ose derived from the Yegua Formation; SGCN: Y |

DISCLAIMER

PLANTS

Texas trumpets Acleisanthes crassifolia

Shallow, well-drained, calcareous, gravelly loams over caliche on gentle to moderate slopes, often in sparsely vegetated openings in cenizo (Leucophyllum frutescens) shrublands; known populations occur on Austin Chalk (Cretaceous) or Uvalde Gravel (Pleistocene); Perennial; Flowering March-November; Fruiting April-December

Federal Status:

Endemic: N

Global Rank: G2

State Status:

SGCN: Y State Rank: S2

DISCLAIMER

APPENDIX D

Best Management Practices and Mitigation Measures



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Appendix D: Best Management Practices

This chapter describes those measures that will be implemented to reduce or eliminate potential adverse impacts on the human and natural environments. Many of these measures have been incorporated as standard operating procedures by CBP on past projects. DHS commits to adopting these standard operating procedures. BMPs will be presented for each resource category that would be potentially affected. It should be emphasized that these are general BMPs and the development of specific BMPs will be required for certain activities implemented under the action alternatives. The proposed BMPs will be coordinated through the appropriate agencies and land managers/administrators, as required.

It is Federal policy to reduce adverse impacts through the sequence of avoidance, minimization, and, finally, compensation. Compensation varies and includes activities such as restoration of habitat in other areas, acquisition of lands, etc., and is typically coordinated with the appropriate Federal and state resource agencies.

GENERAL PROJECT PLANNING CONSIDERATIONS

- 1. If required, night-vision-friendly strobe lights necessary for CBP operational needs will use the minimum wattage and number of flashes per minute necessary to ensure operational safety.
- 2. Avoid contamination of ground and surface waters by storing concrete wash water, and any water that has been contaminated with construction materials, oils, equipment residue, etc., in closed containers on-site until removed for disposal. This wash water is toxic to wildlife. Storage tanks must have proper air space (to avoid rainfall-induced overtopping), be on-ground containers, and be located in upland areas instead of washes.
- 3. Avoid lighting impacts during the night by conducting construction and maintenance activities during daylight hours only. If night lighting is unavoidable, 1) use special bulbs designed to ensure no increase in ambient light conditions, 2) minimize the number of lights used, 3) place lights on poles pointed down toward the ground, with shields on lights to prevent light from going up into sky, or out laterally into landscape, and 4) selectively place lights so they are directed away from all native vegetative communities.
- 4. CBP will avoid the spread of non-native plants by not using natural materials (e.g., straw) for on-site erosion control. If natural materials must be used, the natural material would be certified weed and weed-seed free. Herbicides not toxic to listed species that may be in the area can be used for non-native vegetation control. Application of herbicides will follow Federal guidelines and can be used according to in accordance with label directions.
- 5. Imported materials such as fill and gravel must be from a clean source, obtained from existing developed or previously used sources, and not from undisturbed areas adjacent to the project area. Materials will be weed free.

- 6. All heavy equipment will be cleaned/power-washed prior to delivery onsite to ensure that invasive plant seeds are not brought into the project area.
- 7. CBP will ensure that all construction will follow DHS Directive 025-01 for Sustainable Practices for Environmental, Energy, and Transportation Management.
- 8. CBP will place drip pans under parked equipment and establish containment zones when refueling vehicles or equipment.

SOILS

- 1. Clearly demarcate the perimeter of all new areas to be disturbed using flagging or temporary construction fencing. Do not allow any disturbance outside that perimeter.
- 2. The area of disturbance will be minimized by limiting deliveries of materials and equipment to only those needed for effective project implementation.
- 3. Within the designated disturbance area, grading or topsoil removal will be limited to areas where this activity is needed to provide the ground conditions necessary for construction or maintenance activities.
- 4. Rehabilitation will include revegetating or the distribution of organic and geological materials (i.e., boulders and rocks) over the disturbed area to reduce erosion.

BIOLOGICAL RESOURCES

- 1. Materials used for on-site erosion control will be free of non-native plant seeds and other plant parts to limit potential for infestation. CBP will avoid the use of plastic mesh matting to the greatest extent practical.
- 2. Identify by its source location any fill material, sandbags, hay bales, and mulch brought in from outside the project area. These materials will be free of non-native plant seeds and other plant parts to limit potential for infestation.
- 3. Native seeds or plants will be used to revegetate temporarily disturbed areas. Where possible, CBP will incorporate pollinator conservation and management, into the landscaping plans for the proposed facility. Revegetation efforts will include planting or seeding native milkweed (*Asclepias* spp.) and nectar plants as funding and seed availability allow.
- 4. Obtain materials such as gravel, topsoil, or fill from existing developed or previously used sources that are compatible with the project area and are from legally permitted sites. Do not use materials from undisturbed areas adjacent to the project area.

- 5. The construction contractor will remove invasive plants that appear on the site as needed. If mechanical methods are used to remove invasive plants, the entire plant should be removed and placed in a disposal area. If herbicides are used, the plants will be left in place.
- 6. To prevent entrapment of wildlife species, ensure that excavated, steep-walled holes or trenches are either completely covered by plywood or metal caps at the close of each workday or provided with one or more escape ramps (at no greater than 1,000-foot intervals and sloped less than 45 degrees) constructed of earthen fill or wooden planks.
- 7. Each morning before the start of construction or maintenance activities and before such holes or trenches are filled, ensure that they are thoroughly inspected for trapped animals. Ensure that any animals discovered are allowed to escape voluntarily (by escape ramps or temporary structures), without harassment, and before construction activities resume, or are removed from the trench or hole by a qualified person and allowed to escape unimpeded.
- 8. Visible space beneath all heavy equipment must be checked for wildlife prior to moving the equipment.
- 9. The Migratory Bird Treaty Act (MBTA) (16 U.S.C. 703-712, [1918, as amended 1936, 1960, 1968, 1969, 1974, 1978, 1986 and 1989]) requires that Federal agencies coordinate with the USFWS if a construction activity would result in the take of a migratory bird. If construction or clearing activities are scheduled during nesting season (March 15 through September 15) within potential nesting habitats, surveys will be performed to identify active nests. If construction activities will result in the take of a migratory bird, then coordination with the USFWS and TPWD will be required and applicable permits would be obtained prior to construction or clearing activities.
- 10. For encounters with rare species that will not readily leave the work area, TPWD recommends an authorized individual translocate the animal. Translocations of reptiles should be the minimum distance possible from the work area. Ideally, individuals to be relocated should be transported to the closest suitable habitat outside of the active construction area; preferably within 100 to 200 yards and not greater than one mile from the capture site. State listed species may only be handled by persons with appropriate authorization from the TPWD Wildlife Permits Office.
- 11. CBP will not, for any length of time, permit any pets inside the project area or adjacent native habitats. This BMP does not pertain to law enforcement animals.
- 12. BMPs for Special Status Species (*these will be performed to the greatest extent practical*).
 - Black Bear: Historically, black bears occurred in the mountainous Trans-Pecos region of west Texas. However, over the past 15 years, black bear populations have increased and expanded into the western portions of the Edwards Plateau and South Texas Plains where they occur in more open grassland areas. If a black bear is observed within the project area, TPWD

requests that the observation be reported to TPWD mammologist Jonah Evans at (830) 331-8739.

- Texas Horned Lizard: The Texas horned lizard (*Phrynosoma cornutum*) can be found in open, arid, and semiarid regions with sparse vegetation, including grass, cactus, scattered brush or scrubby trees. TPWD recommends avoiding disturbance of the Texas horned lizard, its burrows, and colonies of its primary food source, the harvester ant (*Pogonomyrmex* sp.), during clearing and construction.
- Texas Tortoise: Suitable habitat for the Texas tortoise appears to occur within the project study area. Tortoises are often found near or at the base of prickly pear cactus and may seek shade by crawling under parked vehicles. TPWD recommends reviewing the *Texas Tortoise Best Management Practices* document available online at TPWD's Wildlife Habitat Assessment Program homepage. Contractors and other staff should be made aware that in south Texas, the Texas tortoise is generally inactive from December through January and is therefore likely to be undetectable in a project area during those months. If a tortoise is located at the project site, it should be relocated only if it is found in an area in which imminent danger is present.
- Tamaulipan spot tailed earless lizard: Habitat for this species includes moderately open prairie-brushlands, particularly flat areas free of vegetation or other obstructions. It is important for construction personnel to be able to identify this species and to be on the lookout for them during construction and to avoid impacting them if encountered on-site.

WATER RESOURCES

- 1. Wastewater is to be stored in closed containers on-site until removed for disposal. Wastewater is water used for project purposes that is contaminated with construction materials or from cleaning equipment and thus carries oils or other toxic materials or other contaminants as defined by Federal or state regulations.
- 2. Avoid contamination of ground and surface waters by collecting concrete wash water in open containers and disposing of it off-site.
- 3. Avoid contaminating natural aquatic and wetland systems with runoff by limiting all equipment maintenance, staging, and laydown and dispensing hazardous liquids, such as fuel and oil, to designated upland areas.
- 4. Cease work during heavy rains and do not resume work until conditions are suitable for the movement of equipment and materials.
- 5. Erosion control measures and appropriate BMPs, as required and promulgated through a site-specific SWPPP and engineering designs, will be implemented

before, during, and after soil-disturbing activities.

- 6. Areas with highly erodible soils will be given special consideration when preparing the SWPPP to ensure incorporation of various erosion control techniques, such as straw bales, silt fencing, aggregate materials, wetting compounds, and rehabilitation, where possible, to decrease erosion.
- 7. All construction and maintenance contractors and personnel will review the CBP- approved spill protection plan and implement it during construction and maintenance activities.
- 8. Wastewater from pressure washing must be collected. A ground pit or sump can be used to collect the wastewater. Wastewater from pressure washing must not be discharged into any surface water.
- 9. If soaps or detergents are used, the wastewater and solids must be pumped or cleaned out and disposed of in an approved facility. If no soaps or detergents are used, the wastewater must first be filtered or screened to remove solids before being allowed to flow off-site. Detergents and cleaning solutions must not be sprayed over or discharged into surface waters.

AIR QUALITY

- 1. Soil watering will be utilized to minimize airborne particulate matter created during construction activities. Bare ground may be covered with hay or straw to lessen wind erosion during the time between construction and the revegetation of temporary impact areas with a mixture of native plant seeds or nursery plantings (or both). All construction equipment and vehicles will be kept in good operating condition to minimize exhaust emissions.
- 2. Mitigation measures will be incorporated to ensure that PM10 emission levels do not rise above the de minimus threshold as required per 40 CFR 51.853(b)(1). Measures shall include dust suppression methods to minimize airborne particulate matter that will be created during construction activities. Standard construction BMPs, such as routine watering of the access roads, shall be used to control fugitive dust during the construction phases of the proposed project. Additionally, all construction equipment and vehicles shall be required to be kept in good operating condition to minimize exhaust emissions. Equipment and vehicles used on the project site must be well-maintained and use diesel particulate filters to reduce particulate matter emissions. If a contractor expects significant dust/emissions on their specific site, they must provide method to reduce airborne particulate matter for their site.
- 3. Soil watering will be used to minimize airborne particulate matter created during construction activities. Bare ground may be covered with hay or straw to lessen wind erosion during construction.

NOISE

- 1. Avoid noise impacts during the night by conducting construction and maintenance activities during daylight hours only.
- 2. All Occupational Safety and Health Administration (OSHA) requirements will be followed. To lessen noise impacts on the local wildlife communities, construction will only occur during daylight hours. All motor vehicles will be properly maintained to reduce the potential for vehicle-related noise.

CULTURAL RESOURCES

- 1. In the event that unanticipated archaeological resources are discovered during construction or any other project-related activities, or should known archaeological resources be inadvertently affected in a manner that was not anticipated, the project proponent or contractor shall immediately halt all activities in the immediate area of the discovery and take steps to stabilize and protect the discovered resource until it can be evaluated by a qualified archaeologist.
- 2. If any human remains are accidentally encountered during construction, work shall cease and the human remains left undisturbed, and the state police and CBP will be notified immediately.

ROADWAYS AND TRAFFIC

1. Construction vehicles will travel and equipment will be transported on established roads with safety precautions.

SOLID AND HAZARDOUS WASTES

- 1. BMPs will be implemented as standard operating procedures during all construction activities, and will include proper handling, storage, and/or disposal of hazardous and/or regulated materials. To minimize potential impacts from hazardous and regulated materials, all fuels, waste oils, and solvents will be collected and stored in tanks or drums within a secondary containment system that consists of an impervious floor and bermed sidewalls capable of containing the volume of the largest container stored therein. The refueling of machinery (i.e., generator) will be completed in accordance with accepted industry and regulatory guidelines, and all vehicles will have drip pans during storage to contain minor spills and drips. Although it is unlikely that a major spill would occur, any spill of reportable quantities will be contained immediately within an earthen dike, and the application of an absorbent (e.g., granular, pillow, sock) will be used to absorb and contain the spill.
- 2. CBP will contain non-hazardous waste materials and other discarded materials, such as construction waste, until removed from the construction and maintenance sites. This will assist in keeping the project area and surroundings free of litter and reduce the amount of disturbed area needed for waste storage.

- 3. CBP will minimize site disturbance and avoid attracting predators by promptly removing waste materials, wrappers, and debris from the site. Any waste that must remain more than 12 hours should be properly stored until disposal.
- 4. All waste oil and solvents will be recycled. All non-recyclable hazardous and regulated wastes will be collected, characterized, labeled, stored, transported, and disposed of in accordance with all applicable Federal, state, and local regulations, including proper waste manifesting procedures.
- 5. Solid waste receptacles will be maintained at the project site. Non-hazardous solid waste (trash and waste construction materials) will be collected and deposited in onsite receptacles. Solid waste will be collected and disposed of by a local waste disposal contractor.
- 6. Disposal of used batteries or other small quantities of hazardous waste will be handled, managed, maintained, stored, and disposed of in accordance with applicable Federal and state rules and regulations for the management, storage, and disposal of hazardous materials, hazardous waste and universal waste. Additionally, to the extent practicable, all batteries will be recycled locally.
- 7. All rainwater collected in secondary containment will be pumped out, and secondary containment will have netting to minimize exposure to wildlife. Properly licensed and certified hazardous waste disposal contractor will be used for hazardous waste disposal, and manifests will be traced to final destinations to ensure proper disposal is accomplished.

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APPENDIX E

Air Quality Calculations



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Appendix E: Air Quality Calculations

2 1.1 Emissions Estimations Methodology

3 DHS has considered net emissions generated from all sources of air emissions that may be associated with
 4 the Proposed Action. More specifically, project-related direct emissions would result from the following:

- Site preparation, demolition, and construction activities Use of heavy construction equipment,
 worker vehicles traveling to and from the project area, use of paints and architectural coatings,
 paving off gases, and fugitive dust from ground disturbance.
- Operational activities Use emergency generators, fuel dispensing activities, and new personnel commuting to and from the JPC daily.

Emissions factors are representative values that attempt to relate the quantity of a pollutant released with the activity associated with the release of that pollutant. These factors are usually expressed as the weight of pollutant emitted per unit weight, volume, distance, or duration of the pollutant emitting activity. In most cases, these factors are simply an average of all available data of acceptable quality and are generally assumed to be representative of long-term averages for all emitters in the source category. The emission factors presented in this appendix are generally from the *Compilation of Air Pollutant Emission Factors*

16 (AP-42) and *WebFIRE* (USEPA's online emissions factor database).

All direct and indirect emissions associated with the Proposed Action were estimated. Construction
emissions were estimated using predicted equipment use for site grading, trenching/excavation,
construction, architectural coatings, and paving. Operational emissions were estimated using predicted

20 equipment use for facility operation. Operational equipment considered includes emergency generators and

21 fuel dispensing. Giving the relatively warm climate of the region, it was assumed a heat pump or electric

heating system will be installed at the JPC to supply heat, and no natural gas-, propane-, or oil-fired heaters

would be needed.

1

- 24 The construction period would involve the use of various non-road equipment, power generators, and
- trucks. Pieces of equipment to be used for facility construction include, but are not limited to, backhoes,
 loaders, excavators, air compressors, chain saws, chipping machines, dozers, cranes, pavers, graders,
- rollers, excavators, air compressors, chain saws, chipping machines, dozers, cranes, pavers, graders,
 rollers, and heavy trucks. Information regarding the number of pieces and types of construction equipment
- to be used on the project, the schedule for deployment of equipment (monthly and annually), and the
- approximate daily operating time (including power level or usage factor) were estimated for each individual
- 29 approximate daily operating time (including power lever of usage factor) were estimated in 30 construction project based on a schedule of construction activity.
- 30 construction project based on a schedule of construction activity.
- 31 The following on-road vehicle type abbreviations and their definitions are used throughout this appendix.
- 32 LDGV: Light-Duty Gasoline Vehicle (Passenger Cars)
- 33 LDGT: Light-Duty Gasoline Truck (0–8,500 Pounds Gross Vehicle Weight Rating [GVWR])
- 34 HDGV: Heavy-Duty Gasoline Vehicle (8,501 to > 60,000 Pounds GVWR)
- 35 LDDV: Light-Duty Diesel Vehicle (Passenger Cars)
- 36 LDDT: Light-Duty Diesel Truck (0–8,500 Pounds GVWR)
- 37 HDDV: Heavy-Duty Diesel Vehicle (8,501 to > 60,000 Pounds GVWR)
- 38 MC: Motorcycles (Gasoline)

1 **1.1.1 Construction – Demolition Phase**

2 1.1.1.1 Assumptions

3 Average days worked per week: 5

4 Construction Exhaust

| Equipment Name | Number Of Equipment | Hours per Day |
|-------------------------------------|---------------------|---------------|
| Concrete/Industrial Saws Composite | 1 | 8 |
| Rubber Tired Dozers Composite | 1 | 1 |
| Tractors/Loaders/Backhoes Composite | 2 | 6 |

5 Vehicle Exhaust

6

7

- Average Hauling Truck Capacity (yd³): 20
 - Average Hauling Truck Round Trip Commute (mile): 20

8 Vehicle Exhaust Vehicle Mixture (%)

| | LDGV | LDGT | HDGV | LDDV | LDDT | HDDV | MC |
|------|------|------|------|------|------|--------|----|
| POVs | 0 | 0 | 0 | 0 | 0 | 100.00 | 0 |

9 Worker Trips

10 Average Worker Round Trip Commute (mile): 20

11 Worker Trips Vehicle Mixture (%)

| | LDGV | LDGT | HDGV | LDDV | LDDT | HDDV | MC |
|------|-------|-------|------|------|------|------|----|
| POVs | 50.00 | 50.00 | 0 | 0 | 0 | 0 | 0 |

12 **1.1.1.2 Emission Factors**

13 Construction Exhaust Emission Factors (lb/hour)

| Concrete/Industrial Saws Composite | | | | | | | | | | | |
|-------------------------------------|--------|--------|--------|--------|--------|-------------------|-----------------|-------------------|--|--|--|
| | VOC | SOx | NOx | СО | PM10 | PM _{2.5} | CH ₄ | CO ₂ e | | | |
| Emission Factors | 0.0336 | 0.0006 | 0.2470 | 0.3705 | 0.0093 | 0.0093 | 0.0030 | 58.539 | | | |
| Rubber Tired Dozers Composite | | | | | | | | | | | |
| | VOC | SOx | NOx | СО | PM10 | PM2.5 | CH4 | CO ₂ e | | | |
| Emission Factors | 0.1671 | 0.0024 | 1.0824 | 0.6620 | 0.0418 | 0.0418 | 0.0150 | 239.45 | | | |
| Tractors/Loaders/Backhoes Composite | | | | | | | | | | | |
| | VOC | SOx | NOx | СО | PM10 | PM2.5 | CH4 | CO ₂ e | | | |
| Emission Factors | 0.0335 | 0.0007 | 0.1857 | 0.3586 | 0.0058 | 0.0058 | 0.0030 | 66.872 | | | |

14 Vehicle Exhaust & Worker Trips Emission Factors (grams/mile)

| | VOC | SOx | NOx | СО | PM10 | PM2.5 | Pb | NH ₃ | CO ₂ e |
|------|---------|---------|---------|---------|---------|---------|---------|-----------------|-------------------|
| LDGV | 000.192 | 000.002 | 000.099 | 002.870 | 000.004 | 000.004 | 000.000 | 000.024 | 00303.869 |
| LDGT | 000.209 | 000.003 | 000.175 | 003.239 | 000.006 | 000.005 | 000.000 | 000.026 | 00396.310 |
| HDGV | 000.856 | 000.006 | 000.851 | 013.446 | 000.024 | 000.021 | 000.000 | 000.051 | 00912.039 |
| LDDV | 000.074 | 000.001 | 000.080 | 003.109 | 000.003 | 000.002 | 000.000 | 000.008 | 00307.078 |
| LDDT | 000.081 | 000.001 | 000.120 | 002.137 | 000.003 | 000.003 | 000.000 | 000.009 | 00358.668 |
| HDDV | 000.118 | 000.004 | 002.424 | 001.549 | 000.042 | 000.039 | 000.000 | 000.032 | 01234.892 |
| MC | 002.457 | 000.003 | 000.660 | 012.092 | 000.022 | 000.020 | 000.000 | 000.054 | 00389.894 |

1 **1.1.1.3 Formulas**

| 2 | Fugitive Dust Emissions per Phase |
|----|---|
| 3 | $PM10_{FD} = (0.00042 * BA * BH) / 2000$ |
| 4 | PM10 _{FD} : Fugitive Dust PM 10 Emissions (TONs) |
| 5 | 0.00042: Emission Factor (lb/ft ³) |
| 6 | BA: Area of Building to be demolished (ft^2) |
| 7 | BH: Height of Building to be demolished (ft) |
| 8 | 2000: Conversion Factor pounds to tons |
| 9 | Construction Exhaust Emissions per Phase |
| 10 | $CEE_{POL} = (NE * WD * H * EF_{POL}) / 2000$ |
| 11 | CEE _{POL} : Construction Exhaust Emissions (TONs) |
| 12 | NE: Number of Equipment |
| 13 | WD: Number of Total Workdays (days) |
| 14 | H: Hours Worked per Day (hours) |
| 15 | EF _{POL} : Emission Factor for Pollutant (lb/hour) |
| 16 | 2000: Conversion Factor pounds to tons |
| 17 | Vehicle Exhaust Emissions per Phase |
| 18 | $VMT_{VE} = BA * BH * (1 / 27) * 0.25 * (1 / HC) * HT$ |
| 19 | VMT _{VE} : Vehicle Exhaust Vehicle Miles Travel (miles) |
| 20 | BA: Area of Building being demolish (ft ²) |
| 21 | BH: Height of Building being demolish (ft) |
| 22 | $(1 / 27)$: Conversion Factor cubic feet to cubic yards ($1 \text{ yd}^3 / 27 \text{ ft}^3$) |
| 23 | 0.25: Volume reduction factor (material reduced by 75% to account for air space) |
| 24 | HC: Average Hauling Truck Capacity (yd ³) |
| 25 | (1 / HC): Conversion Factor cubic yards to trips (1 trip / HC yd ³) |
| 26 | HT: Average Hauling Truck Round Trip Commute (mile/trip) |
| 27 | $V_{POL} = (VMT_{VE} * 0.002205 * EF_{POL} * VM) / 2000$ |
| 28 | V _{POL} : Vehicle Emissions (TONs) |
| 29 | VMT _{VE} : Vehicle Exhaust Vehicle Miles Travel (miles) |
| 30 | 0.002205: Conversion Factor grams to pounds |
| 31 | EF _{POL} : Emission Factor for Pollutant (grams/mile) |
| 32 | VM: Vehicle Exhaust On Road Vehicle Mixture (%) |
| 33 | 2000: Conversion Factor pounds to tons |
| 34 | Worker Trips Emissions per Phase |
| 35 | $VMT_{WT} = WD * WT * 1.25 * NE$ |
| 36 | VMT _{WT} : Worker Trips Vehicle Miles Travel (miles) |
| 37 | WD: Number of Total Workdays (days) |
| 38 | WT: Average Worker Round Trip Commute (mile) |
| 39 | 1.25: Conversion Factor Number of Construction Equipment to Number of Works |
| 40 | NE: Number of Construction Equipment |

| 1 | M = (MMT + 0.002205 + EE + MM) / 2000 |
|---|--|
| I | $v_{POL} = (v_{M1} w_T + 0.002203 + EF_{POL} + v_{M}) / 2000$ |
| 2 | V _{POL} : Vehicle Emissions (TONs) |
| 3 | VMT _{WT} : Worker Trips Vehicle Miles Travel (miles) |
| 4 | 0.002205: Conversion Factor grams to pounds |
| 5 | EF _{POL} : Emission Factor for Pollutant (grams/mile) |
| 6 | VM: Worker Trips On Road Vehicle Mixture (%) |
| 7 | 2000: Conversion Factor pounds to tons |

8 1.1.2 Construction – Site Grading Phase

9 1.1.2.1 Assumptions

10 Average days worked per week: 5

11 Construction Exhaust

| Equipment Name | Number Of Equipment | Hours Per Day |
|--|---------------------|---------------|
| Excavators Composite | 1 | 8 |
| Graders Composite | 1 | 8 |
| Other Construction Equipment Composite | 1 | 8 |
| Rubber Tired Dozers Composite | 1 | 8 |
| Scrapers Composite | 3 | 8 |
| Tractors/Loaders/Backhoes Composite | 3 | 8 |

12 Vehicle Exhaust

- 13 Average Hauling Truck Capacity (yd³): 20
- 14 Average Hauling Truck Round Trip Commute (mile): 20

15 Vehicle Exhaust Vehicle Mixture (%)

| | LDGV | LDGT | HDGV | LDDV | LDDT | HDDV | MC |
|------|------|------|------|------|------|--------|----|
| POVs | 0 | 0 | 0 | 0 | 0 | 100.00 | 0 |

16 Worker Trips

17

Average Worker Round Trip Commute (mile): 20

18 Worker Trips Vehicle Mixture (%)

| | LDGV | LDGT | HDGV | LDDV | LDDT | HDDV | MC |
|------|-------|-------|------|------|------|------|----|
| POVs | 50.00 | 50.00 | 0 | 0 | 0 | 0 | 0 |

19 **1.1.2.2 Emission Factors**

20 Construction Exhaust Emission Factors (lb/hour)

Excavators Composite VOC NOx CO **PM**₁₀ PM_{2.5} CH₄ CO₂e SOx 0.0559 0.0013 0.2269 0.5086 0.0086 0.0086 0.0050 119.70 **Emission Factors Graders** Composite CO VOC SOx NOx **PM**₁₀ PM_{2.5} CH₄ CO₂e 0.0014 0.0676 0.3314 0.5695 0.0147 0.0147 0.0061 132.89 **Emission Factors Other Construction Equipment Composite** VOC NOx CO CH₄ SOx **PM**₁₀ PM2.5 CO₂e 0.0012 **Emission Factors** 0.0442 0.2021 0.3473 0.0068 0.0068 0.0039 122.60

| Rubber Tired Dozers Composite | | | | | | | | | | | | |
|-------------------------------|-------------------------------------|--------|-----------------|--------|--------|-------------------|-----------------|-------------------|--|--|--|--|
| | VOC | SOx | NOx | CO | PM10 | PM2.5 | CH4 | CO ₂ e | | | | |
| Emission Factors | 0.1671 | 0.0024 | 1.0824 | 0.6620 | 0.0418 | 0.0418 | 0.0150 | 239.45 | | | | |
| Scrapers Composite | | | | | | | | | | | | |
| | VOC | SOx | NOx | CO | PM10 | PM2.5 | CH4 | CO ₂ e | | | | |
| Emission Factors | 0.1495 | 0.0026 | 0.8387 | 0.7186 | 0.0334 | 0.0334 | 0.0134 | 262.81 | | | | |
| Tractors/Loaders/Bac | Tractors/Loaders/Backhoes Composite | | | | | | | | | | | |
| | VOC | SOx | NO _X | CO | PM10 | PM _{2.5} | CH ₄ | CO ₂ e | | | | |
| Emission Factors | 0.0335 | 0.0007 | 0.1857 | 0.3586 | 0.0058 | 0.0058 | 0.0030 | 66.872 | | | | |

1 Vehicle Exhaust & Worker Trips Emission Factors (grams/mile)

| | VOC | SOx | NOx | СО | PM10 | PM2.5 | Pb | NH ₃ | CO ₂ e |
|------|---------|---------|---------|---------|---------|---------|---------|-----------------|-------------------|
| LDGV | 000.192 | 000.002 | 000.099 | 002.870 | 000.004 | 000.004 | 000.000 | 000.024 | 00303.869 |
| LDGT | 000.209 | 000.003 | 000.175 | 003.239 | 000.006 | 000.005 | 000.000 | 000.026 | 00396.310 |
| HDGV | 000.856 | 000.006 | 000.851 | 013.446 | 000.024 | 000.021 | 000.000 | 000.051 | 00912.039 |
| LDDV | 000.074 | 000.001 | 000.080 | 003.109 | 000.003 | 000.002 | 000.000 | 000.008 | 00307.078 |
| LDDT | 000.081 | 000.001 | 000.120 | 002.137 | 000.003 | 000.003 | 000.000 | 000.009 | 00358.668 |
| HDDV | 000.118 | 000.004 | 002.424 | 001.549 | 000.042 | 000.039 | 000.000 | 000.032 | 01234.892 |
| MC | 002.457 | 000.003 | 000.660 | 012.092 | 000.022 | 000.020 | 000.000 | 000.054 | 00389.894 |

2 **1.1.2.3 Formulas**

| 3 | Fugitive Dust Emissions per Phase |
|----|---|
| 4 | $PM10_{FD} = (20 * ACRE * WD) / 2000$ |
| 5 | PM10 _{FD} : Fugitive Dust PM ₁₀ Emissions (TONs) |
| 6 | 20: Conversion Factor Acre Day to pounds (20 lb / 1 Acre Day) |
| 7 | ACRE: Total acres (acres) |
| 8 | WD: Number of Total Workdays (days) |
| 9 | 2000: Conversion Factor pounds to tons |
| 10 | Construction Exhaust Emissions per Phase |
| 11 | $CEE_{POL} = (NE * WD * H * EF_{POL}) / 2000$ |
| 12 | CEE _{POL} : Construction Exhaust Emissions (TONs) |
| 13 | NE: Number of Equipment |
| 14 | WD: Number of Total Workdays (days) |
| 15 | H: Hours Worked per Day (hours) |
| 16 | EF _{POL} : Emission Factor for Pollutant (lb/hour) |
| 17 | 2000: Conversion Factor pounds to tons |
| 18 | Vehicle Exhaust Emissions per Phase |
| 19 | $VMT_{VE} = (HA_{OnSite} + HA_{OffSite}) * (1 / HC) * HT$ |
| 20 | VMT _{VE} : Vehicle Exhaust Vehicle Miles Travel (miles) |
| 21 | HA _{OnSite} : Amount of Material to be Hauled On-Site (yd ³) |
| 22 | HA _{OffSite} : Amount of Material to be Hauled Off-Site (yd ³) |
| 23 | HC: Average Hauling Truck Capacity (yd ³) |
| 24 | (1 / HC): Conversion Factor cubic yards to trips (1 trip / HC yd ³) |
| 25 | HT: Average Hauling Truck Round Trip Commute (mile/trip) |

| 1 | $V_{POL} = (VMT_{VE} * 0.002205 * EF_{POL} * VM) / 2000$ |
|----|---|
| 2 | V _{POL} : Vehicle Emissions (TONs) |
| 3 | VMT _{VE} : Vehicle Exhaust Vehicle Miles Travel (miles) |
| 4 | 0.002205: Conversion Factor grams to pounds |
| 5 | EF _{POL} : Emission Factor for Pollutant (grams/mile) |
| 6 | VM: Vehicle Exhaust On Road Vehicle Mixture (%) |
| 7 | 2000: Conversion Factor pounds to tons |
| 8 | Worker Trips Emissions per Phase |
| 9 | $VMT_{WT} = WD * WT * 1.25 * NE$ |
| 10 | VMT _{WT} : Worker Trips Vehicle Miles Travel (miles) |
| 11 | WD: Number of Total Workdays (days) |
| 12 | WT: Average Worker Round Trip Commute (mile) |
| 13 | 1.25: Conversion Factor Number of Construction Equipment to Number of Works |
| 14 | NE: Number of Construction Equipment |
| 15 | $V_{POL} = (VMT_{WT} * 0.002205 * EF_{POL} * VM) / 2000$ |
| 16 | V _{POL} : Vehicle Emissions (TONs) |
| 17 | VMT _{WT} : Worker Trips Vehicle Miles Travel (miles) |
| 18 | 0.002205: Conversion Factor grams to pounds |
| 19 | EF _{POL} : Emission Factor for Pollutant (grams/mile) |
| 20 | VM: Worker Trips On Road Vehicle Mixture (%) |
| 21 | 2000: Conversion Factor pounds to tons |

22 1.1.3 Construction – Trenching/Excavating Phase

23 **1.1.3.1** Assumptions

Average Days worked per week: 5

25 Construction Exhaust

| Equipment Name | Number Of Equipment | Hours Per Day |
|--|---------------------|---------------|
| Excavators Composite | 2 | 8 |
| Other General Industrial Equipment Composite | 1 | 8 |
| Tractors/Loaders/Backhoes Composite | 1 | 8 |

26 Vehicle Exhaust

- 27 Average Hauling Truck Capacity (yd³): 20
- 28 Average Hauling Truck Round Trip Commute (mile): 20

29 Vehicle Exhaust Vehicle Mixture (%)

| | LDGV | LDGT | HDGV | LDDV | LDDT | HDDV | MC |
|------|------|------|------|------|------|--------|----|
| POVs | 0 | 0 | 0 | 0 | 0 | 100.00 | 0 |

30 Worker Trips

31 Average Worker Round Trip Commute (mile): 20

1 Worker Trips Vehicle Mixture (%)

| | LDGV | LDGT | HDGV | LDDV | LDDT | HDDV | MC |
|------|-------|-------|------|------|------|------|----|
| POVs | 50.00 | 50.00 | 0 | 0 | 0 | 0 | 0 |

2 **1.1.3.2** Emission Factors

3 Construction Exhaust Emission Factors (lb/hour)

| Excavators Composite | | | | | | | | |
|-----------------------------|-------------|----------|-----------------|--------|--------|-------------------|-----------------|-------------------|
| | VOC | SOx | NOx | CO | PM10 | PM2.5 | CH4 | CO ₂ e |
| Emission Factors | 0.0559 | 0.0013 | 0.2269 | 0.5086 | 0.0086 | 0.0086 | 0.0050 | 119.70 |
| Graders Composite | • | | | • | • | | • | |
| | VOC | SOx | NO _X | CO | PM10 | PM _{2.5} | CH ₄ | CO ₂ e |
| Emission Factors | 0.0676 | 0.0014 | 0.3314 | 0.5695 | 0.0147 | 0.0147 | 0.0061 | 132.89 |
| Other Construction Ec | quipment Co | omposite | | • | • | | • | |
| | VOC | SOx | NOx | CO | PM10 | PM2.5 | CH4 | CO ₂ e |
| Emission Factors | 0.0442 | 0.0012 | 0.2021 | 0.3473 | 0.0068 | 0.0068 | 0.0039 | 122.60 |
| Rubber Tired Dozers | Composite | | | • | • | | • | |
| | VOC | SOx | NOx | CO | PM10 | PM2.5 | CH4 | CO ₂ e |
| Emission Factors | 0.1671 | 0.0024 | 1.0824 | 0.6620 | 0.0418 | 0.0418 | 0.0150 | 239.45 |
| Scrapers Composite | | | | | | | | |
| | VOC | SOx | NOx | CO | PM10 | PM2.5 | CH4 | CO ₂ e |
| Emission Factors | 0.1495 | 0.0026 | 0.8387 | 0.7186 | 0.0334 | 0.0334 | 0.0134 | 262.81 |
| Tractors/Loaders/Bac | khoes Comp | osite | | | | | | |
| | VOC | SOx | NOx | CO | PM10 | PM _{2.5} | CH ₄ | CO ₂ e |
| Emission Factors | 0.0335 | 0.0007 | 0.1857 | 0.3586 | 0.0058 | 0.0058 | 0.0030 | 66.872 |

4 Vehicle Exhaust & Worker Trips Emission Factors (grams/mile)

| | VOC | SOx | NOx | СО | PM10 | PM2.5 | Pb | NH ₃ | CO ₂ e |
|------|---------|---------|---------|---------|---------|---------|---------|-----------------|-------------------|
| LDGV | 000.192 | 000.002 | 000.099 | 002.870 | 000.004 | 000.004 | 000.000 | 000.024 | 00303.869 |
| LDGT | 000.209 | 000.003 | 000.175 | 003.239 | 000.006 | 000.005 | 000.000 | 000.026 | 00396.310 |
| HDGV | 000.856 | 000.006 | 000.851 | 013.446 | 000.024 | 000.021 | 000.000 | 000.051 | 00912.039 |
| LDDV | 000.074 | 000.001 | 000.080 | 003.109 | 000.003 | 000.002 | 000.000 | 000.008 | 00307.078 |
| LDDT | 000.081 | 000.001 | 000.120 | 002.137 | 000.003 | 000.003 | 000.000 | 000.009 | 00358.668 |
| HDDV | 000.118 | 000.004 | 002.424 | 001.549 | 000.042 | 000.039 | 000.000 | 000.032 | 01234.892 |
| MC | 002.457 | 000.003 | 000.660 | 012.092 | 000.022 | 000.020 | 000.000 | 000.054 | 00389.894 |

5 **1.1.3.3 Formulas**

8

6 Fugitive Dust Emissions per Phase

- 7 $PM10_{FD} = (20 * ACRE * WD) / 2000$
 - PM10_{FD}: Fugitive Dust PM₁₀ Emissions (TONs)
- 9 20: Conversion Factor Acre Day to pounds (20 lb / 1 Acre Day)
- 10 ACRE: Total acres (acres)
- 11 WD: Number of Total Workdays (days)
- 12 2000: Conversion Factor pounds to tons

13 Construction Exhaust Emissions per Phase

- 14 $CEE_{POL} = (NE * WD * H * EF_{POL}) / 2000$
- 15 CEE_{POL}: Construction Exhaust Emissions (TONs)
- 16 NE: Number of Equipment

| • | WD: Number of Total Workdays (days) |
|--|--|
| 2 | H: Hours Worked per Day (hours) |
| 3 | EF _{POL} : Emission Factor for Pollutant (lb/hour) |
| 4 | 2000: Conversion Factor pounds to tons |
| 5 | Vehicle Exhaust Emissions per Phase |
| 6 | $VMT_{VE} = (HA_{OnSite} + HA_{OffSite}) * (1 / HC) * HT$ |
| 7 | VMT _{VE} : Vehicle Exhaust Vehicle Miles Travel (miles) |
| 8 | HA _{OnSite} : Amount of Material to be Hauled On-Site (yd ³) |
| 9 | HA _{OffSite} : Amount of Material to be Hauled Off-Site (yd ³) |
| 10 | HC: Average Hauling Truck Capacity (yd ³) |
| 11 | (1 / HC): Conversion Factor cubic yards to trips (1 trip / HC yd ³) |
| 12 | HT: Average Hauling Truck Round Trip Commute (mile/trip) |
| 13 | $V_{POL} = (VMT_{VE} * 0.002205 * EF_{POL} * VM) / 2000$ |
| 14 | V _{POL} : Vehicle Emissions (TONs) |
| 15 | VMT _{VE} : Vehicle Exhaust Vehicle Miles Travel (miles) |
| 16 | 0.002205: Conversion Factor grams to pounds |
| 17 | EF _{POL} : Emission Factor for Pollutant (grams/mile) |
| 18 | VM: Vehicle Exhaust On Road Vehicle Mixture (%) |
| 19 | 2000: Conversion Factor pounds to tons |
| | |
| 20 | Worker Trips Emissions per Phase |
| 20 21 | Worker Trips Emissions per Phase VMT _{WT} = WD * WT * 1.25 * NE |
| 20 21 22 | Worker Trips Emissions per Phase VMT _{WT} = WD * WT * 1.25 * NE VMT _{WT} : Worker Trips Vehicle Miles Travel (miles) |
| 20 21 22 23 | Worker Trips Emissions per Phase VMT _{WT} = WD * WT * 1.25 * NE VMT _{WT} : Worker Trips Vehicle Miles Travel (miles) WD: Number of Total Workdays (days) |
| 20 21 22 23 24 | Worker Trips Emissions per Phase VMT _{WT} = WD * WT * 1.25 * NE VMT _{WT} : Worker Trips Vehicle Miles Travel (miles) WD: Number of Total Workdays (days) WT: Average Worker Round Trip Commute (mile) |
| 20 21 22 23 24 25 | Worker Trips Emissions per Phase VMT _{WT} = WD * WT * 1.25 * NE VMT _{WT} : Worker Trips Vehicle Miles Travel (miles) WD: Number of Total Workdays (days) WT: Average Worker Round Trip Commute (mile) 1.25: Conversion Factor Number of Construction Equipment to Number of Works |
| 20 21 22 23 24 25 26 | Worker Trips Emissions per Phase VMT _{WT} = WD * WT * 1.25 * NE VMT _{WT} : Worker Trips Vehicle Miles Travel (miles) WD: Number of Total Workdays (days) WT: Average Worker Round Trip Commute (mile) 1.25: Conversion Factor Number of Construction Equipment to Number of Works NE: Number of Construction Equipment |
| 20 21 22 23 24 25 26 27 | Worker Trips Emissions per Phase $VMT_{WT} = WD * WT * 1.25 * NE$ VMT_{WT} : Worker Trips Vehicle Miles Travel (miles)WD: Number of Total Workdays (days)WT: Average Worker Round Trip Commute (mile)1.25: Conversion Factor Number of Construction Equipment to Number of WorksNE: Number of Construction Equipment $V_{POL} = (VMT_{WT} * 0.002205 * EF_{POL} * VM) / 2000$ |
| 20 21 22 23 24 25 26 27 28 | Worker Trips Emissions per Phase $VMT_{WT} = WD * WT * 1.25 * NE$ VMT_{WT} : Worker Trips Vehicle Miles Travel (miles) WD : Number of Total Workdays (days) WT : Average Worker Round Trip Commute (mile)1.25: Conversion Factor Number of Construction Equipment to Number of Works NE : Number of Construction Equipment $V_{POL} = (VMT_{WT} * 0.002205 * EF_{POL} * VM) / 2000$ V_{POL} : Vehicle Emissions (TONs) |
| 20 21 22 23 24 25 26 27 28 29 | Worker Trips Emissions per Phase $VMT_{WT} = WD * WT * 1.25 * NE$ VMT_{WT} : Worker Trips Vehicle Miles Travel (miles) WD : Number of Total Workdays (days) WT : Average Worker Round Trip Commute (mile)1.25: Conversion Factor Number of Construction Equipment to Number of WorksNE: Number of Construction Equipment $V_{POL} = (VMT_{WT} * 0.002205 * EF_{POL} * VM) / 2000$ V_{POL} : Vehicle Emissions (TONs) VMT_{VE} : Worker Trips Vehicle Miles Travel (miles) |
| 20 21 22 23 24 25 26 27 28 29 30 | Worker Trips Emissions per Phase $VMT_{WT} = WD * WT * 1.25 * NE$ VMT_{WT} : Worker Trips Vehicle Miles Travel (miles) WD : Number of Total Workdays (days) WT : Average Worker Round Trip Commute (mile)1.25: Conversion Factor Number of Construction Equipment to Number of Works NE : Number of Construction Equipment $V_{POL} = (VMT_{WT} * 0.002205 * EF_{POL} * VM) / 2000$ V_{POL} : Vehicle Emissions (TONs) VMT_{VE} : Worker Trips Vehicle Miles Travel (miles)0.002205: Conversion Factor grams to pounds |
| 20 21 22 23 24 25 26 27 28 29 30 31 | Worker Trips Emissions per Phase VMT _{WT} = WD * WT * 1.25 * NE VMT _{WT} : Worker Trips Vehicle Miles Travel (miles) WD: Number of Total Workdays (days) WT: Average Worker Round Trip Commute (mile) 1.25: Conversion Factor Number of Construction Equipment to Number of Works NE: Number of Construction Equipment VPOL = (VMT _{WT} * 0.002205 * EF _{POL} * VM) / 2000 VPOL: Vehicle Emissions (TONs) VMT _{VE} : Worker Trips Vehicle Miles Travel (miles) 0.002205: Conversion Factor grams to pounds EF _{POL} : Emission Factor for Pollutant (grams/mile) |
| 20 21 22 23 24 25 26 27 28 29 30 31 32 | Worker Trips Emissions per PhaseVMTwT = WD * WT * 1.25 * NEVMTwT: Worker Trips Vehicle Miles Travel (miles)WD: Number of Total Workdays (days)WT: Average Worker Round Trip Commute (mile)1.25: Conversion Factor Number of Construction Equipment to Number of WorksNE: Number of Construction EquipmentVPOL = (VMTwT * 0.002205 * EFPOL * VM) / 2000VPOL: Vehicle Emissions (TONs)VMTvE: Worker Trips Vehicle Miles Travel (miles)0.002205: Conversion Factor grams to poundsEFPOL: Emission Factor for Pollutant (grams/mile)VM: Worker Trips On Road Vehicle Mixture (%) |
| 20 21 22 23 24 25 26 27 28 29 30 31 32 33 | Worker Trips Emissions per Phase $VMT_{WT} = WD * WT * 1.25 * NE$ VMT_{WT} : Worker Trips Vehicle Miles Travel (miles) WD : Number of Total Workdays (days) WT : Average Worker Round Trip Commute (mile)1.25: Conversion Factor Number of Construction Equipment to Number of Works NE : Number of Construction Equipment $V_{POL} = (VMT_{WT} * 0.002205 * EF_{POL} * VM) / 2000$ V_{POL} : Vehicle Emissions (TONs) VMT_{VE} : Worker Trips Vehicle Miles Travel (miles) 0.002205 : Conversion Factor grams to pounds EF_{POL} : Emission Factor for Pollutant (grams/mile) VM : Worker Trips On Road Vehicle Mixture (%)2000: Conversion Factor pounds to tons |
| 20 21 22 23 24 25 26 27 28 29 30 31 32 33 33 34 | Worker Trips Emissions per Phase VMT _{WT} = WD * WT * 1.25 * NE VMT _{WT} : Worker Trips Vehicle Miles Travel (miles) WD: Number of Total Workdays (days) WT: Average Worker Round Trip Commute (mile) 1.25: Conversion Factor Number of Construction Equipment to Number of Works NE: Number of Construction Equipment VPOL = (VMT _{WT} * 0.002205 * EF _{POL} * VM) / 2000 VPOL: Vehicle Emissions (TONs) VMT _{VE} : Worker Trips Vehicle Miles Travel (miles) 0.002205: Conversion Factor grams to pounds EF _{POL} : Emission Factor for Pollutant (grams/mile) VM: Worker Trips On Road Vehicle Mixture (%) 2000: Conversion Factor pounds to tons |
| 20 21 22 23 24 25 26 27 28 29 30 31 32 33 33 34 35 | Worker Trips Emissions per PhaseVMTWT = WD * WT * 1.25 * NEVMTWT : Worker Trips Vehicle Miles Travel (miles)WD: Number of Total Workdays (days)WT: Average Worker Round Trip Commute (mile)1.25: Conversion Factor Number of Construction Equipment to Number of WorksNE: Number of Construction EquipmentVPOL = (VMTWT * 0.002205 * EFPOL * VM) / 2000VPOL: Vehicle Emissions (TONs)VMTVE: Worker Trips Vehicle Miles Travel (miles)0.002205: Conversion Factor grams to poundsEFPOL: Emission Factor for Pollutant (grams/mile)VM: Worker Trips On Road Vehicle Mixture (%)2000: Conversion Factor pounds to tons1.1.4.1 Assumptions |

Construction Exhaust

| Equipment Name | Number Of Equipment | Hours Per Day |
|------------------|---------------------|---------------|
| Cranes Composite | 1 | 6 |

| Equipment Name | Number Of Equipment | Hours Per Day |
|-------------------------------------|---------------------|---------------|
| Forklifts Composite | 2 | 6 |
| Generator Sets Composite | 1 | 8 |
| Tractors/Loaders/Backhoes Composite | 1 | 8 |
| Welders Composite | 3 | 8 |

1 Vehicle Exhaust

2 Average Hauling Truck Round Trip Commute (mile): 20

3 Vehicle Exhaust Vehicle Mixture (%)

| | LDGV | LDGT | HDGV | LDDV | LDDT | HDDV | MC |
|------|------|------|------|------|------|--------|----|
| POVs | 0 | 0 | 0 | 0 | 0 | 100.00 | 0 |

4 Worker Trips

5

8

Average Worker Round Trip Commute (mile): 20

6 Worker Trips Vehicle Mixture (%)

| | LDGV | LDGT | HDGV | LDDV | LDDT | HDDV | MC |
|------|-------|-------|------|------|------|------|----|
| POVs | 50.00 | 50.00 | 0 | 0 | 0 | 0 | 0 |

7 Vendor Trips

Average Vendor Round Trip Commute (mile): 40

9 Vendor Trips Vehicle Mixture (%)

| | LDGV | LDGT | HDGV | LDDV | LDDT | HDDV | MC |
|------|------|------|------|------|------|--------|----|
| POVs | 0 | 0 | 0 | 0 | 0 | 100.00 | 0 |

10 **1.1.4.2 Emission Factors**

11 Construction Exhaust Emission Factors (lb/hour)

| Cranes Composite | | | | | | | | |
|----------------------|-----------|--------|--------|--------|--------|-------------------|-----------------|-------------------|
| | VOC | SOx | NOx | CO | PM10 | PM2.5 | CH4 | CO ₂ e |
| Emission Factors | 0.0680 | 0.0013 | 0.4222 | 0.3737 | 0.0143 | 0.0143 | 0.0061 | 128.77 |
| Forklifts Composite | | | | | | | | |
| | VOC | SOx | NOx | CO | PM10 | PM _{2.5} | CH ₄ | CO ₂ e |
| Emission Factors | 0.0236 | 0.0006 | 0.0859 | 0.2147 | 0.0025 | 0.0025 | 0.0021 | 54.449 |
| Generator Sets Compo | osite | | | | | | | |
| | VOC | SOx | NOx | CO | PM10 | PM2.5 | CH4 | CO ₂ e |
| Emission Factors | 0.0287 | 0.0006 | 0.2329 | 0.2666 | 0.0080 | 0.0080 | 0.0025 | 61.057 |
| Tractors/Loaders/Bac | khoes Com | posite | | | | | | |
| | VOC | SOx | NOx | CO | PM10 | PM2.5 | CH4 | CO ₂ e |
| Emission Factors | 0.0335 | 0.0007 | 0.1857 | 0.3586 | 0.0058 | 0.0058 | 0.0030 | 66.872 |
| Welders Composite | | | | | | | | • |
| | VOC | SOx | NOx | CO | PM10 | PM2.5 | CH4 | CO ₂ e |
| Emission Factors | 0.0214 | 0.0003 | 0.1373 | 0.1745 | 0.0051 | 0.0051 | 0.0019 | 25.650 |

12 Vehicle Exhaust & Worker Trips Emission Factors (grams/mile)

| | VOC | SOx | NOx | СО | PM10 | PM2.5 | Pb | NH ₃ | CO ₂ e |
|------|---------|---------|---------|---------|---------|---------|---------|-----------------|-------------------|
| LDGV | 000.192 | 000.002 | 000.099 | 002.870 | 000.004 | 000.004 | 000.000 | 000.024 | 00303.869 |
| LDGT | 000.209 | 000.003 | 000.175 | 003.239 | 000.006 | 000.005 | 000.000 | 000.026 | 00396.310 |
| HDGV | 000.856 | 000.006 | 000.851 | 013.446 | 000.024 | 000.021 | 000.000 | 000.051 | 00912.039 |

| $ \frac{ v v v }{ v v } 000,74 \ 000,0001 \ 000,0000 \ 000,0002 \ 000,0000 \ 000,000 $ | | | | | | | | | | | - |
|--|----|---------------------------|-------------------------------------|--------------------------|-----------------------------|--------------------------|---------------|---------------|----------------------|-----------|-------------------|
| $ \begin{array}{ c c c c c c c c c c c c c c c c c c c$ | | | VOC | SOx | NOx | CO | PM10 | PM2.5 | Pb | NH3 | CO ₂ e |
| $ \frac{ DD }{ DD } = \frac{ D0 A }{ D0 A A } = \frac{ D0 A }{ D0 A } = $ | | LDDV | 000.074 | 000.001 | 000.080 | 003.109 | 000.003 | 000.002 | 000.000 | 000.008 | 00307.078 |
| Index 000.004 000.2424 001.249 000.003 <t< td=""><td></td><td>LDDT</td><td>000.081</td><td>000.001</td><td>000.120</td><td>002.137</td><td>000.003</td><td>000.003</td><td>000.000</td><td>000.009</td><td>00358.668</td></t<> | | LDDT | 000.081 | 000.001 | 000.120 | 002.137 | 000.003 | 000.003 | 000.000 | 000.009 | 00358.668 |
| 11.1.4.3 Formulas2Construction Exhaust Emissions per Phase CEE _{POL} - (NE * WD * II * EF _{POL}) / 20003CEE _{POL} - (NE * WD * II * EF _{POL}) / 20004CEE _{POL} : Construction Exhaust Emissions (TONs)5NE: Number of Equipment6WD: Number of Total Workdays (days)7H: Hours Worked per Day (hours)8EF _{POL} : Emission Factor for Pollutant (lb/hour)92000: Conversion Factor for Pollutant (lb/hour)92000: Conversion Factor for Pollutant (lb/hour)92000: Conversion Factor for Pollutant (lb/hour)11VMTvr: EA * BH * (0.42 / 1000) * HT12VMTvr: EA * BH * (0.42 / 1000) * HT13BA: Area of Building (ft)14BH: Height of Building (ft)15(0.42 / 1000): Conversion Factor ft' to trips (0.42 trip / 1,000 ft ³)16HT: Average Hauling Truck Round Trip Commute (mile/trip)17V _{POL} = (VMTvn * 0.002205 * EF _{POL} * VM) / 200018V _{POL} = (VMTvn * 0.002205 * EF _{POL} * VM) / 200019VMTvg: Vehicle Exhaust Vehicle Miles Travel (miles)200.002205: Conversion Factor grams to pounds21EF _{POL} : Emission Factor for Pollutant (grams/mile)22VMTvg: Worker Trips On Road Vehicle Miles Travel (miles)232000: Conversion Factor pounds to tons24Worker Trips Emissions per Phase25VMTwg: Worker Trips Vehicle Miles Travel (miles)26VMTwg: Worker Trips Vehicle Miles Travel (miles)27WD: Number of Total Workdays (days)28 <td></td> <td>HDDV</td> <td>000.118</td> <td>000.004</td> <td>002.424</td> <td>001.549</td> <td>000.042</td> <td>000.039</td> <td>000.000</td> <td>000.032</td> <td>01234.892</td> | | HDDV | 000.118 | 000.004 | 002.424 | 001.549 | 000.042 | 000.039 | 000.000 | 000.032 | 01234.892 |
| 11.1.4.3 Formulas2Construction Exhaust Emissions per Phase3 $CEE_{POL} = (WE * WD * H * EF_{POL}) / 2000$ 4 $CEE_{POL} : Construction Exhaust Emissions (TONs)5NE: Number of Equipment6WD: Number of Total Workdays (days)7H: Hours Worked per Day (hours)8EF_{POL}: Emission Factor for Pollutant (lb/hour)92000: Conversion Factor pounds to tons10Vehicle Exhaust Emissions per Phase11VMTvE = BA * BH * (0.42 / 1000) * HT12VMTvE: Vehicle Exhaust Vehicle Miles Travel (miles)13BA: Area of Building (ft)14BH: Height of Building (ft)15(0.42 / 1000): Conversion Factor ft3 to trips (0.42 trip / 1,000 ft3)16HT: Average Hauling Truck Round Trip Commute (mile/trip)17V_{POL} = (VMTvE * 0.002205 * EF_{POL} * VM) / 200018V_{Pont}: Vehicle Exhaust Vehicle Miles Travel (miles)2000: Conversion Factor grams to pounds21VMTvT: Vehicle Exhaust Vehicle Miles Travel (miles)22VMTvT: Vehicle Exhaust Vehicle Miles Travel (miles)232000: Conversion Factor pounds to tons24Worker Trips On Road Vehicle Miles Travel (miles)25VMTwT: Worker Trips On Road Vehicle Miles Travel (miles)24VMTwT: Worker Trips Vehicle Miles Travel (miles)25VMTwT: Worker Trips New Poil26VMTwT: Worker Trips Vehicle Miles Travel (miles)27WD: Number of Total Workdays (days)28WT: Average Worker Round Trip Commute (mile$ | | MC | 002.437 | 000.003 | 000.000 | 012.092 | 000.022 | 000.020 | 000.000 | 000.034 | 00389.894 |
| 2 Construction Exhaust Emissions per Phase 3 $CEE_{encl.} = (NE * WD * H * EF_{encl.} / 2000$ 4 $CEE_{encl.} = (ontruction Exhaust Emissions (TONs)$ 5 NE: Number of Total Workdays (days) 7 H: Hours Worked per Day (hours) 8 $EF_{encl.}$: Emission Factor for Pollutant (lb/hour) 9 2000: Conversion Factor pounds to tons 10 Vehicle Exhaust Emissions per Phase 11 VMTv _E = BA * BH * (0.42 / 1000) * HT 12 VMTv _E : Vehicle Exhaust Vehicle Miles Travel (miles) 13 BA: Area of Building (f1) 14 BH: Height of Building (f1) 15 (0.42 / 1000): Conversion Factor f1 ³ to trips (0.42 trip / 1,000 f1 ³) 16 HT: Average Hauling Truck Round Trip Commute (mile/trip) 17 V _{POL} = (VMTv _E * 0.002205 * EF _{POL} * VM) / 2000 18 V _{POL} : Vehicle Exhaust Vehicle Miles Travel (miles) 20 0.002205: Conversion Factor grams to pounds 21 EF _{POL} : Finission Factor for Pollutant (grams/mile) 22 VM: Worker Trips On Road Vehicle Miles Travel (miles) 20 0.002205: Conversion Factor prounds to tons 24 VMTw _T = WD * WT * 1.25 * NE | 1 | 1.1.4.3 F | formulas | | | | | | | | |
| 3 $CEE_{POL} = (NE * WD * H * EF_{POL}) / 2000$ 4 $CEE_{POL} : Construction Exhaust Emissions (TONs)$ 5NE: Number of Total Workdays (days)6WD: Number of Total Workdays (days)7H: Hours Worked per Day (hours)8 $EF_{POL} : Emission Factor for Pollutant (lb/hour)$ 92000: Conversion Factor pounds to tons10Vehicle Exhaust Emissions per Phase11 $VMT_{VE} = BA * BH * (0.42 / 1000) * HT12VMT_{VE} : Vehicle Exhaust Vehicle Miles Travel (miles)13BA: Area of Building (ft2)14BH: Height of Building (ft)15(0.42 / 1000): Conversion Factor for Vol / 200016HT: Average Hauling Truck Round Trip Commute (mile/trip)17V_{POL} = (VMT_{VE} * 0.002205 * EF_{POL} * VM) / 200018V_{POL} : Chicle Emissions (TONs)19VMTvc:: Vehicle Exhaust Vehicle Miles Travel (miles)200.002205: Conversion Factor grams to pounds21EF_{POL} : Emission Factor opounds to tons22VM: Worker Trips On Road Vehicle Miles Travel (miles)232000: Conversion Factor pounds to tons24Worker Trips Emissions per Phase25VMT_WT: Worker Trips Vehicle Miles Travel (miles)26VMT_WT: Worker Trips Vehicle Miles Travel (miles)27WD Number of Total Workdays (days)28WT: Average Worker Round Trip Commute (mile)291.25: Conversion Factor Number of Construction Equipment to Number of Works30NE: Number of Construction Equipment31$ | 2 | Construc | ction Exha | ust Emissi | ons per Pl | nase | | | | | |
| 4CEE _{POL} : Construction Exhaust Emissions (TONs)5NE: Number of Equipment6WD: Number of Total Workdays (days)7H: Hours Worked per Day (hours)8EF _{POL} : Emission Factor for Pollutant (lb/hour)92000: Conversion Factor pounds to tons10Vehicle Exhaust Emissions per Phase11VMTve: Teha * BH * (0.42 / 1000) * HT12VMTve: Vehicle Exhaust Vehicle Miles Travel (miles)13BA: Area of Building (ft ²)14BH: Height of Building (ft ²)15(0.42 / 1000): Conversion Factor ft ³ to trips (0.42 trip / 1,000 ft ³)16HT: Average Hauling Truck Round Trip Commute (mile/trip)17V _{POL} = (VMTve * 0.002205 * EF _{POL} * VM) / 200018VpoL: Vehicle Emissions (TONs)19VMTve: Vehicle Exhaust Vehicle Miles Travel (miles)200.002205: Conversion Factor grams to pounds21EF _{POL} : Emission Factor for Pollutant (grams/mile)22VM* Worker Trips On Road Vehicle Miles Travel (miles)232000: Conversion Factor pounds to tons24Worker Trips Emissions per Phase25VMTwrt: Worker Trips Vehicle Miles Travel (miles)26VMTwrt: Worker Trips Vehicle Miles Travel (miles)27WD: Number of Total Workdays (days)28WT: Average Worker Round Trip Commute (mile)291.25: Conversion Factor Number of Construction Equipment to Number of Works30NE: Number of Construction Equipment31V _{POL} = (VMTWrt * 0.002205 * EF _{POL} * VM) / 200032 <td>3</td> <td>C</td> <td>$CEE_{POL} = (N$</td> <td>VE * WD *</td> <td>H * EF_{POI}</td> <td>) / 2000</td> <td></td> <td></td> <td></td> <td></td> <td></td> | 3 | C | $CEE_{POL} = (N$ | VE * WD * | H * EF _{POI} |) / 2000 | | | | | |
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| 6WD: Number of Total Workdays (days)7H: Hours Worked per Day (hours)8 EF_{Pot} : Emission Factor for Pollutant (lb/hour)92000: Conversion Factor pounds to tons10Vehicle Exhaust Emissions per Phase11 $VMTv_E$: Vehicle Exhaust Vehicle Miles Travel (miles)13BA: Area of Building (ft ²)14BH: Height of Building (ft)15(0.42 / 1000): Conversion Factor ft ³ to trips (0.42 trip / 1,000 ft ³)16HT: Average Hauling Truck Round Trip Commute (mile/trip)17 $V_{Pot} = (VMTv_E * 0.002205 * EF_{Pot} * VM) / 2000$ 18 $V_{Pot}:$ Vehicle Emissions (TONs)19VMTv_E: Vehicle Exhaust Vehicle Miles Travel (miles)200.002205 : Conversion Factor grams to pounds21EFPot: Emission Factor for Pollutant (grams/mile)22VM: Worker Trips On Road Vehicle Mixture (%)232000: Conversion Factor pounds to tons24Worker Trips Emissions per Phase25VMTw_T = WD * WT * 1.25 * NE26VMTw_T = WD * WT * 1.25 * NE27WD: Number of Total Workdays (days)28WT: Average Worker Round Trip Commute (mile)291.25: Conversion Factor Number of Construction Equipment to Number of Works30NE: Number of Construction Equipment31V _{Pot} = (VMTw_T * 0.002205 * EF_{Pot} * VM) / 200032VPot: Vehicle Emissions (TONs)33VMTW_TY44UPOT = VONTW_T * 0.002205 * EF_{Pot} * VM) / 2000340.002205 : Conversion Factor pounds <t< td=""><td>5</td><td></td><td>NE:</td><td>Number o</td><td>f Equipme</td><td>nt</td><td></td><td></td><td></td><td></td><td></td></t<> | 5 | | NE: | Number o | f Equipme | nt | | | | | |
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| 8 EF_{PoL} : Emission Factor for Pollutant (lb/hour)92000: Conversion Factor pounds to tons10Vehicle Exhaust Emissions per Phase11 $VMT_{VE} = BA * BH * (0.42 / 1000) * HT12VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)13BA: Area of Building (ft2)14BH: Height of Building (ft)15(0.42 / 1000): Conversion Factor ft3 to trips (0.42 trip / 1,000 ft3)16HT: Average Hauling Truck Round Trip Commute (mile/trip)17V_{POL} = (VMT_{VE} * 0.002205 * EF_{PoL} * VM) / 200018V_{POL}: Vehicle Emissions (TONs)19VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)200.002205: Conversion Factor grams to pounds21EF_{POL}: Emission Factor for Pollutant (grams/mile)22VM: Worker Trips On Road Vehicle Miles Travel (miles)232000: Conversion Factor pounds to tons24Worker Trips Emissions per Phase25VMT_WT = WD * WT * 1.25 * NE26VMT_WT = WD * WT * 1.25 * NE27WD: Number of Total Workdays (days)28WT: Average Worker Round Trip Commute (mile)291.25: Conversion Factor Number of Construction Equipment to Number of Works30NE: Number of Construction Equipment31V_{POL} = (VMT_WT * 0.002205 * EF_{POL} * VM) / 200033VMT_WT: Worker Trips Vehicle Miles Travel (miles)340.002205: Conversion Factor grams to pounds35EF_{POL} * Vh) / 200036VMT_WT Worker Trips Vehicle Miles Travel (miles)<$ | 7 | | H: H | Hours Worl | ked per Da | y (hours) | • | | | | |
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| 11 $VMTv_E = BA * BH * (0.427/1000) * H1$ 12 $VMTv_E: Vehicle Exhaust Vehicle Miles Travel (miles)13BA: Area of Building (ft²)14BH: Height of Building (ft)15(0.42 / 1000): Conversion Factor ft³ to trips (0.42 trip / 1,000 ft³)16HT: Average Hauling Truck Round Trip Commute (mile/trip)17V_{POL} = (VMTv_E * 0.002205 * EF_{POL} * VM) / 200018Vroi. Vehicle Emissions (TONs)19VMTv_E: Vehicle Exhaust Vehicle Miles Travel (miles)200.002205: Conversion Factor grams to pounds21EF_{POL}: Emission Factor for Pollutant (grams/mile)22VM: Worker Trips On Road Vehicle Mixture (%)232000: Conversion Factor pounds to tons24Worker Trips Emissions per Phase25VMTw_T = WD * WT * 1.25 * NE26VMTw_T: Worker Trips Vehicle Miles Travel (miles)27WD: Number of Total Workdays (days)28WT: Average Worker Round Trip Commute (mile)291.25: Conversion Factor Number of Construction Equipment to Number of Works30NE: Number of Construction Equipment31V_{POL} = (VMTw_T * 0.002205 * EF_{POL} * VM) / 200032V_{POL}: Vehicle Emissions (TONs)33VMTw_T: Worker Trips Vehicle Miles Travel (miles)340.002205: Conversion Factor grams to pounds35EF_{POL}: Emission factor for Pollutant (grams/mile)36VMTw_T: Worker Trips Vehicle Miles Travel (miles)370.002205: Conversion Factor grams to pounds36VMTw_T: Worker Trips$ | 10 | venicie i | Exnaust Er | nissions pe | er Phase | 0) * UT | | | | | |
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| 14BH: Height of Building (ft)15 $(0.42 / 1000)$: Conversion Factor ft³ to trips $(0.42 \text{ trip} / 1,000 \text{ ft³})$ 16HT: Average Hauling Truck Round Trip Commute (mile/trip)17 $V_{POL} = (VMT_{VE} * 0.002205 * EF_{POL} * VM) / 2000$ 18 V_{POL} : Vehicle Emissions (TONs)19 VMT_{VE} : Vehicle Exhaust Vehicle Miles Travel (miles)20 0.002205 : Conversion Factor grams to pounds21EF _{POL} : Emission Factor for Pollutant (grams/mile)22VM: Worker Trips On Road Vehicle Mixture (%)232000: Conversion Factor pounds to tons24Worker Trips Emissions per Phase25VMT _{WT} = WD * WT * 1.25 * NE26VMT _{WT} : Worker Trips Vehicle Miles Travel (miles)27WD: Number of Total Workdays (days)28WT: Average Worker Round Trip Commute (mile)291.25: Conversion Factor Number of Construction Equipment to Number of Works30NE: Number of Construction Equipment31 $V_{POL} = (VMT_{WT} * 0.002205 * EF_{POL} * VM) / 2000$ 32VPOL: Vehicle Emissions (TONs)33VMT_WT: Worker Trips Vehicle Miles Travel (miles)340.002205: Conversion Factor grams to pounds35EF_{POL}: Emission Factor for Pollutant (grams/mile)36VM: Worker Trips On Road Vehicle Mixture (%)372000: Conversion Factor grams to pounds36VM: Worker Trips On Road Vehice Mixture (%)372000: Conversion Factor for Pollutant (grams/mile)36VM: Worker Trips On Road Vehice Mixture (%)37 | 13 | | BA: | Area of B | uilding (ft ² | ·) | | | | | |
| 15 $(0.42 / 1000)$: Conversion Factor ft ³ to trips $(0.42 \text{ trip } / 1,000 \text{ ft}^3)$ 16HT: Average Hauling Truck Round Trip Commute (mile/trip)17 $V_{POL} = (VMT_{VE} * 0.002205 * EF_{POL} * VM) / 2000$ 18 V_{POL} : Vehicle Emissions (TONs)19VMT_VE: Vehicle Exhaust Vehicle Miles Travel (miles)200.002205: Conversion Factor grams to pounds21EF_{POL}: Emission Factor for Pollutant (grams/mile)22VM: Worker Trips On Road Vehicle Mixture (%)232000: Conversion Factor pounds to tons24Worker Trips Emissions per Phase25VMT_WT = WD * WT * 1.25 * NE26VMTwr: Worker Trips Vehicle Miles Travel (miles)27WD: Number of Total Workdays (days)28WT: Average Worker Round Trip Commute (mile)291.25: Conversion Factor Number of Construction Equipment to Number of Works30NE: Number of Construction Equipment31 $V_{POL} = (VMT_{WT} * 0.002205 * EF_{POL} * VM) / 2000$ 32Vort: Vehicle Emissions (TONs)33VMT_WT: Worker Trips Vehicle Miles Travel (miles)340.002205: Conversion Factor grams to pounds35EF_POL: Emission Factor for Pollutant (grams/mile)36VM: Worker Trips On Road Vehicle Mixer (%)372000: Conversion Factor provide to tons | 14 | | BH: | Height of | Building (| ft) | | | 2 | | |
| 16HT: Average Hauling Truck Round Trip Commute (mile/trip)17 $V_{POL} = (VMT_{VE} * 0.002205 * EF_{POL} * VM) / 2000$ 18 V_{POL} : Vehicle Emissions (TONs)19VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)200.002205: Conversion Factor grams to pounds21EF_{POL}: Emission Factor for Pollutant (grams/mile)22VM: Worker Trips On Road Vehicle Mixture (%)232000: Conversion Factor pounds to tons24Worker Trips Emissions per Phase25VMT_{WT} = WD * WT * 1.25 * NE26VMT_WT: Worker Trips Vehicle Miles Travel (miles)27WD: Number of Total Workdays (days)28WT: Average Worker Round Trip Commute (mile)291.25: Conversion Factor Number of Construction Equipment to Number of Works30NE: Number of Construction Equipment31 $V_{POL} = (VMT_{WT} * 0.002205 * EF_{POL} * VM) / 2000$ 33VMT_WT: Worker Trips Vehicle Miles Travel (miles)340.002205: Conversion Factor grams to pounds35EF_{POL}: Emission Factor frips Vehicle Miles Travel (miles)36VMT_WT: Worker Trips Vehicle Miles Travel (miles)37VMTwr: Worker Trips Vehicle Miles Travel (miles)38VMTwr: Worker Trips Vehicle Miles Travel (miles)39VMTwr: Worker Trips Vehicle Miles Travel (miles)30VMTwr: Worker Trips Vehicle Miles Travel (miles)340.002205: Conversion Factor grams to pounds35EF_{POL}: Emission Factor for Pollutant (grams/mile)36VM: Worker Trips On Road Vehicle Mixture | 15 | | (0.4 | 2 / 1000): 0 | Conversior | n Factor ft ³ | to trips (0 | .42 trip / 1, | (000 ft^3) | | |
| 17 $V_{POL} = (VMT_{VE} * 0.002205 * EF_{POL} * VM) / 2000$ 18 V_{POL} : Vehicle Emissions (TONs)19 VMT_{VE} : Vehicle Exhaust Vehicle Miles Travel (miles)20 0.002205 : Conversion Factor grams to pounds21 EF_{POL} : Emission Factor for Pollutant (grams/mile)22VM: Worker Trips On Road Vehicle Mixture (%)232000: Conversion Factor pounds to tons24Worker Trips Emissions per Phase25VMT_{WT} = WD * WT * 1.25 * NE26VMT_WT: Worker Trips Vehicle Miles Travel (miles)27WD: Number of Total Workdays (days)28WT: Average Worker Round Trip Commute (mile)291.25: Conversion Factor Number of Construction Equipment to Number of Works30NE: Number of Construction Equipment31 $V_{POL} = (VMT_{WT} * 0.002205 * EF_{POL} * VM) / 2000$ 33VMT_WT: Worker Trips Vehicle Miles Travel (miles)340.0002205: Conversion Factor grams to pounds35EF_{POL}: Emission Factor for Pollutant (grams/mile)36VMT WT: Worker Trips Vehicle Miles Travel (miles)370.002205 * DAVE TRAVER grams to pounds38VMT_WT: Worker Trips Vehicle Miles Travel (miles)39VMT_WT: Worker Trips Vehicle Miles Travel (miles)31VPOL = (VMT_WT * 0.002205 * EF_{POL} * VM) / 200033VMT_WT: Worker Trips Vehicle Miles Travel (miles)340.0002205: Conversion Factor grams to pounds35EF_{POL}: Emission Factor for Pollutant (grams/mile)36VM: Worker Trips On Road Vehicle Mixture (%)< | 16 | | HT: | Average H | Iauling Tru | ick Round | Trip Com | mute (mile | /trip) | | |
| 17 $V_{POL} = (VMTV_E = 0.02205 = ErPOL = VMT/2000 + VMT/2000 + VMTV_E = Vehicle Emissions (TONs)18V_{POL} : Vehicle Emissions (TONs)19VMTV_E : Vehicle Exhaust Vehicle Miles Travel (miles)200.002205 : Conversion Factor grams to pounds21EF_{POL} : Emission Factor for Pollutant (grams/mile)22VM: Worker Trips On Road Vehicle Mixture (%)232000: Conversion Factor pounds to tons24Worker Trips Emissions per Phase25VMT_{WT} = WD * WT * 1.25 * NE26VMT_{WT} : Worker Trips Vehicle Miles Travel (miles)27WD: Number of Total Workdays (days)28WT: Average Worker Round Trip Commute (mile)291.25: Conversion Factor Number of Construction Equipment to Number of Works30NE: Number of Construction Equipment31V_{POL} = (VMT_{WT} * 0.002205 * EF_{POL} * VM) / 200033VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)340.002205: Conversion Factor grams to pounds35EF_{POL}: Emission Factor for Pollutant (grams/mile)36VM: Worker Trips On Road Vehicle Miles Travel (miles)36VM: Worker Trips On Road Vehicle Miles Travel (miles)$ | 17 | V | $V_{\rm nex} = (\rm WM)$ | T * 0.00 | 2205 * FE | * VM) | / 2000 | | | | |
| 10 V_{POL} . Vehicle Exhaust Vehicle Miles Travel (miles)19 VMT_{VE} : Vehicle Exhaust Vehicle Miles Travel (miles)20 0.002205 : Conversion Factor grams to pounds21 EF_{PoL} : Emission Factor for Pollutant (grams/mile)22 VM : Worker Trips On Road Vehicle Mixture (%)232000: Conversion Factor pounds to tons24Worker Trips Emissions per Phase25 $VMT_{WT} = WD * WT * 1.25 * NE$ 26 VMT_{WT} : Worker Trips Vehicle Miles Travel (miles)27WD: Number of Total Workdays (days)28WT: Average Worker Round Trip Commute (mile)291.25: Conversion Factor Number of Construction Equipment to Number of Works30NE: Number of Construction Equipment31 $V_{POL} = (VMT_{WT} * 0.002205 * EF_{POL} * VM) / 2000$ 32 VP_{OL} : Vehicle Emissions (TONs)33 VMT_{WT} : Worker Trips Vehicle Miles Travel (miles)34 0.002205 : Conversion Factor grams to pounds35 EF_{POL} : Emission Factor for Pollutant (grams/mile)34 0.002205 : Conversion Factor for Pollutant (grams/mile)35 EF_{POL} : Emission Factor for Pollutant (grams/mile)36VM: Worker Trips On Road Vehicle Mixture (%)372000: Conversion Factor pounds to tons | 10 | v | $V_{\text{POL}} = (V_{\text{IVI}})$ | Vahiala | Emissions | (TON_{c}) | / 2000 | | | | |
| 19 $VMTVE:$ Venicle Exhaust Venicle Miles Travel (miles)20 $0.002205:$ Conversion Factor grams to pounds21 $EF_{POL}:$ Emission Factor for Pollutant (grams/mile)22 $VM:$ Worker Trips On Road Vehicle Mixture (%)23 $2000:$ Conversion Factor pounds to tons24Worker Trips Emissions per Phase25 $VMT_{WT} = WD * WT * 1.25 * NE$ 26 $VMT_{WT}:$ Worker Trips Vehicle Miles Travel (miles)27WD: Number of Total Workdays (days)28WT: Average Worker Round Trip Commute (mile)291.25: Conversion Factor Number of Construction Equipment to Number of Works30NE: Number of Construction Equipment31 $V_{POL} = (VMT_{WT} * 0.002205 * EF_{POL} * VM) / 2000$ 32 $VMT_{WT}:$ Worker Trips Vehicle Miles Travel (miles)34 $0.002205:$ Conversion Factor grams to pounds35 $EF_{POL}:$ Emission Factor for Pollutant (grams/mile)36VM: Worker Trips On Road Vehicle Mixture (%)37 $2000:$ Conversion Factor pounds to tors | 10 | | V PO | L. Venicie I T Mahia | Linissions 1. Each an at | (TONS) Waliala N | (:1 T | 1 (| | | |
| 20 0.002205 : Conversion Factor grams to pounds21 EF_{PoL} : Emission Factor for Pollutant (grams/mile)22VM: Worker Trips On Road Vehicle Mixture (%)232000: Conversion Factor pounds to tons24Worker Trips Emissions per Phase25VMTwT = WD * WT * 1.25 * NE26VMTwT: Worker Trips Vehicle Miles Travel (miles)27WD: Number of Total Workdays (days)28WT: Average Worker Round Trip Commute (mile)291.25: Conversion Factor Number of Construction Equipment to Number of Works30NE: Number of Construction Equipment31 $V_{POL} = (VMT_{WT} * 0.002205 * EF_{POL} * VM) / 2000$ 32VMTwT: Worker Trips Vehicle Miles Travel (miles)340.002205: Conversion Factor grams to pounds35EF _{POL} : Emission Factor for Pollutant (grams/mile)36VM: Worker Trips On Road Vehicle Mixture (%)372000: Conversion Factor pounds to tons | 19 | | | $1_{\rm VE}$: venic | | venicie iv | ines i rave | er (miles) | | | |
| 21EFPOL: Emission Factor for Pollutant (grams/mile)22VM: Worker Trips On Road Vehicle Mixture (%)232000: Conversion Factor pounds to tons24Worker Trips Emissions per Phase25VMTwT = WD * WT * 1.25 * NE26VMTwT: Worker Trips Vehicle Miles Travel (miles)27WD: Number of Total Workdays (days)28WT: Average Worker Round Trip Commute (mile)291.25: Conversion Factor Number of Construction Equipment to Number of Works30NE: Number of Construction Equipment31 $V_{POL} = (VMT_{WT} * 0.002205 * EF_{POL} * VM) / 2000$ 32VMTwT: Vorker Trips Vehicle Miles Travel (miles)33VMTwT: Worker Trips Vehicle Miles Travel (miles)340.002205: Conversion Factor grams to pounds35EF_POL: Emission Factor for Pollutant (grams/mile)36VM: Worker Trips On Road Vehicle Mixture (%)372000: Conversion Factor pounds to tons | 20 | | 0.00 | 52205: Con | version Fa | ctor grams | to pounds | | | | |
| 22VM: Worker Trips On Road Vehicle Mixture (%)232000: Conversion Factor pounds to tons24Worker Trips Emissions per Phase25 $VMT_{WT} = WD * WT * 1.25 * NE$ 26 VMT_{WT} : Worker Trips Vehicle Miles Travel (miles)27WD: Number of Total Workdays (days)28WT: Average Worker Round Trip Commute (mile)291.25: Conversion Factor Number of Construction Equipment to Number of Works30NE: Number of Construction Equipment31 $V_{POL} = (VMT_{WT} * 0.002205 * EF_{POL} * VM) / 2000$ 32 VMT_{WT} : Worker Trips Vehicle Miles Travel (miles)33 VMT_{WT} : Worker Trips Vehicle Miles Travel (miles)340.002205: Conversion Factor grams to pounds35 EF_{POL} : Emission Factor for Pollutant (grams/mile)36 VM : Worker Trips On Road Vehicle Mixture (%)372000: Conversion Factor pounds to tons | 21 | | EFP | ol: Emissic | on Factor for | or Pollutan | t (grams/n | nile) | | | |
| 232000: Conversion Factor pounds to tons24Worker Trips Emissions per Phase25 $VMT_{WT} = WD * WT * 1.25 * NE$ 26 VMT_{WT} : Worker Trips Vehicle Miles Travel (miles)27 WD : Number of Total Workdays (days)28 WT : Average Worker Round Trip Commute (mile)291.25: Conversion Factor Number of Construction Equipment to Number of Works30NE: Number of Construction Equipment31 $V_{POL} = (VMT_{WT} * 0.002205 * EF_{POL} * VM) / 2000$ 32 V_{POL} : Vehicle Emissions (TONs)33 VMT_{WT} : Worker Trips Vehicle Miles Travel (miles)34 0.002205 : Conversion Factor grams to pounds35 EF_{POL} : Emission Factor for Pollutant (grams/mile)36 VM : Worker Trips On Road Vehicle Mixture (%)37 2000 : Conversion Factor pounds to tons | 22 | | VM | : Worker 1 | rips On Ro | bad Vehicl | e Mixture | (%) | | | |
| 24Worker Trips Emissions per Phase25 $VMT_{WT} = WD * WT * 1.25 * NE$ 26 VMT_{WT} : Worker Trips Vehicle Miles Travel (miles)27WD: Number of Total Workdays (days)28WT: Average Worker Round Trip Commute (mile)291.25: Conversion Factor Number of Construction Equipment to Number of Works30NE: Number of Construction Equipment31 $V_{POL} = (VMT_{WT} * 0.002205 * EF_{POL} * VM) / 2000$ 32 V_{POL} : Vehicle Emissions (TONs)33 VMT_{WT} : Worker Trips Vehicle Miles Travel (miles)34 0.002205 : Conversion Factor grams to pounds35 EF_{POL} : Emission Factor for Pollutant (grams/mile)36 VM : Worker Trips On Road Vehicle Mixture (%)37 2000 : Conversion Factor pounds to tons | 23 | | 200 | 0: Convers | ion Factor | pounds to | tons | | | | |
| 25 $VMT_{WT} = WD * WT * 1.25 * NE$ 26 VMT_{WT} : Worker Trips Vehicle Miles Travel (miles)27 WD : Number of Total Workdays (days)28 WT : Average Worker Round Trip Commute (mile)291.25: Conversion Factor Number of Construction Equipment to Number of Works30NE: Number of Construction Equipment31 $V_{POL} = (VMT_{WT} * 0.002205 * EF_{POL} * VM) / 2000$ 32 V_{POL} : Vehicle Emissions (TONs)33 VMT_{WT} : Worker Trips Vehicle Miles Travel (miles)34 0.002205 : Conversion Factor grams to pounds35 EF_{POL} : Emission Factor for Pollutant (grams/mile)36VM: Worker Trips On Road Vehicle Mixture (%)37 2000 : Conversion Factor pounds to tons | 24 | Worker ' | Trips Emi | ssions per | Phase | | | | | | |
| 26 VMT_{WT} : Worker Trips Vehicle Miles Travel (miles)27WD: Number of Total Workdays (days)28WT: Average Worker Round Trip Commute (mile)291.25: Conversion Factor Number of Construction Equipment to Number of Works30NE: Number of Construction Equipment31 $V_{POL} = (VMT_{WT} * 0.002205 * EF_{POL} * VM) / 2000$ 32 V_{POL} : Vehicle Emissions (TONs)33VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)340.002205: Conversion Factor grams to pounds35 EF_{POL} : Emission Factor for Pollutant (grams/mile)36VM: Worker Trips On Road Vehicle Mixture (%)372000: Conversion Factor pounds to tons | 25 | V | $VMT_{WT} = W$ | VD * WT * | 1.25 * NE | l | | | | | |
| 27WD: Number of Total Workdays (days)28WT: Average Worker Round Trip Commute (mile)291.25: Conversion Factor Number of Construction Equipment to Number of Works30NE: Number of Construction Equipment31 $V_{POL} = (VMT_{WT} * 0.002205 * EF_{POL} * VM) / 2000$ 32 V_{POL} : Vehicle Emissions (TONs)33VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)34 0.002205 : Conversion Factor grams to pounds35 EF_{POL} : Emission Factor for Pollutant (grams/mile)36VM: Worker Trips On Road Vehicle Mixture (%)37 2000 : Conversion Factor pounds to tons | 26 | | VM | T _{WT} : Work | er Trips V | ehicle Mile | es Travel (| miles) | | | |
| 28WT: Average Worker Round Trip Commute (mile)291.25: Conversion Factor Number of Construction Equipment to Number of Works30NE: Number of Construction Equipment31 $V_{POL} = (VMT_{WT} * 0.002205 * EF_{POL} * VM) / 2000$ 32 V_{POL} : Vehicle Emissions (TONs)33VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)340.002205: Conversion Factor grams to pounds35 EF_{POL} : Emission Factor for Pollutant (grams/mile)36VM: Worker Trips On Road Vehicle Mixture (%)372000: Conversion Factor pounds to tons | 27 | | WD | : Number o | of Total W | orkdays (d | avs) | , | | | |
| 291.25: Conversion Factor Number of Construction Equipment to Number of Works30NE: Number of Construction Equipment31 $V_{POL} = (VMT_{WT} * 0.002205 * EF_{POL} * VM) / 2000$ 32 V_{POL} : Vehicle Emissions (TONs)33VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)34 0.002205 : Conversion Factor grams to pounds35 EF_{POL} : Emission Factor for Pollutant (grams/mile)36VM: Worker Trips On Road Vehicle Mixture (%)372000: Conversion Factor pounds to tons | 28 | | WT | : Average V | Worker Ro | und Trip C | Commute (| mile) | | | |
| 30NE: Number of Construction Equipment31 $V_{POL} = (VMT_{WT} * 0.002205 * EF_{POL} * VM) / 2000$ 32 V_{POL} : Vehicle Emissions (TONs)33 VMT_{WT} : Worker Trips Vehicle Miles Travel (miles)34 0.002205 : Conversion Factor grams to pounds35 EF_{POL} : Emission Factor for Pollutant (grams/mile)36VM: Worker Trips On Road Vehicle Mixture (%)372000: Conversion Factor pounds to tons | 29 | | 1.25 | 5: Conversi | on Factor 1 | Number of | Construct | ion Équipn | nent to Nu | mber of W | orks |
| 31 $V_{POL} = (VMT_{WT} * 0.002205 * EF_{POL} * VM) / 2000$ 32 V_{POL} : Vehicle Emissions (TONs)33 VMT_{WT} : Worker Trips Vehicle Miles Travel (miles)34 0.002205 : Conversion Factor grams to pounds35 EF_{POL} : Emission Factor for Pollutant (grams/mile)36VM: Worker Trips On Road Vehicle Mixture (%)372000: Conversion Factor pounds to tons | 30 | | NE: | Number o | f Construc | tion Equip | ment | | | | 01110 |
| 31 $V_{POL} = (VMT_{WT} * 0.002205 * EF_{POL} * VM) / 2000$ 32 V_{POL} : Vehicle Emissions (TONs)33VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)340.002205: Conversion Factor grams to pounds35EF_{POL}: Emission Factor for Pollutant (grams/mile)36VM: Worker Trips On Road Vehicle Mixture (%)372000: Conversion Factor pounds to tons | | | 1,12, | | r constrac | non Equip | | | | | |
| 32 V_{POL}: Vehicle Emissions (TONs) 33 VMT_{WT}: Worker Trips Vehicle Miles Travel (miles) 34 0.002205: Conversion Factor grams to pounds 35 EF_{POL}: Emission Factor for Pollutant (grams/mile) 36 VM: Worker Trips On Road Vehicle Mixture (%) 37 2000: Conversion Factor pounds to tons | 31 | V | $V_{\rm POL} = (\rm VM)$ | $T_{WT} * 0.00$ | 2205 * EF | POL * VM) | / 2000 | | | | |
| 33 VMT_{WT}: Worker Trips Vehicle Miles Travel (miles) 34 0.002205: Conversion Factor grams to pounds 35 EF_{POL}: Emission Factor for Pollutant (grams/mile) 36 VM: Worker Trips On Road Vehicle Mixture (%) 37 2000: Conversion Factor pounds to tons | 32 | | V_{PO} | L: Vehicle] | Emissions | (TONs) | | | | | |
| 34 0.002205: Conversion Factor grams to pounds 35 EF_{POL}: Emission Factor for Pollutant (grams/mile) 36 VM: Worker Trips On Road Vehicle Mixture (%) 37 2000: Conversion Factor pounds to tons | 33 | | VM | T _{WT} : Work | er Trips V | ehicle Mile | es Travel (| miles) | | | |
| 35 EF_{POL}: Emission Factor for Pollutant (grams/mile) 36 VM: Worker Trips On Road Vehicle Mixture (%) 37 2000: Conversion Factor pounds to tons | 34 | | 0.00 | 02205: Con | version Fa | ctor grams | to pounds | | | | |
| 36VM: Worker Trips On Road Vehicle Mixture (%)372000: Conversion Factor pounds to tons | 35 | | EFP | _{OL} : Emissic | on Factor f | or Pollutan | t (grams/n | nile) | | | |
| 37 2000: Conversion Factor pounds to tons | 36 | | VM | : Worker T | rips On Ro | oad Vehicl | e Mixture | (%) | | | |
| | 37 | | 200 | 0: Convers | ion Factor | pounds to | tons | ~ / | | | |

| 1 | Vender Trips Emissions per Phase |
|----|--|
| 2 | $VMT_{VT} = BA * BH * (0.38 / 1000) * HT$ |
| 3 | VMT _{VT} : Vender Trips Vehicle Miles Travel (miles) |
| 4 | BA: Area of Building (ft ²) |
| 5 | BH: Height of Building (ft) |
| 6 | (0.38 / 1000): Conversion Factor ft ³ to trips (0.38 trip / 1,000 ft ³) |
| 7 | HT: Average Hauling Truck Round Trip Commute (mile/trip) |
| 8 | $V_{POL} = (VMT_{VT} * 0.002205 * EF_{POL} * VM) / 2000$ |
| 9 | V _{POL} : Vehicle Emissions (TONs) |
| 10 | VMT _{VT} : Vender Trips Vehicle Miles Travel (miles) |
| 11 | 0.002205: Conversion Factor grams to pounds |
| 12 | EF _{POL} : Emission Factor for Pollutant (grams/mile) |
| 13 | VM: Worker Trips On Road Vehicle Mixture (%) |
| 14 | 2000: Conversion Factor pounds to tons |

15 **1.1.5 Construction – Architectural Coatings Phase**

16 **1.1.5.1** Assumptions

17 Average Days worked per week: 5

18 Worker Trips

19

Average Worker Round Trip Commute (mile): 20

20 Worker Trips Vehicle Mixture (%)

| | | () | | | | | |
|------|-------|-------|------|------|------|------|----|
| | LDGV | LDGT | HDGV | LDDV | LDDT | HDDV | MC |
| POVs | 50.00 | 50.00 | 0 | 0 | 0 | 0 | 0 |

21 1.1.5.2 Emission Factors

22 Worker Trips Emission Factors (grams/mile)

| | VOC | SOx | NOx | СО | PM10 | PM2.5 | Pb | NH ₃ | CO ₂ e |
|------|---------|---------|---------|---------|---------|---------|---------|-----------------|-------------------|
| LDGV | 000.192 | 000.002 | 000.099 | 002.870 | 000.004 | 000.004 | 000.000 | 000.024 | 00303.869 |
| LDGT | 000.209 | 000.003 | 000.175 | 003.239 | 000.006 | 000.005 | 000.000 | 000.026 | 00396.310 |
| HDGV | 000.856 | 000.006 | 000.851 | 013.446 | 000.024 | 000.021 | 000.000 | 000.051 | 00912.039 |
| LDDV | 000.074 | 000.001 | 000.080 | 003.109 | 000.003 | 000.002 | 000.000 | 000.008 | 00307.078 |
| LDDT | 000.081 | 000.001 | 000.120 | 002.137 | 000.003 | 000.003 | 000.000 | 000.009 | 00358.668 |
| HDDV | 000.118 | 000.004 | 002.424 | 001.549 | 000.042 | 000.039 | 000.000 | 000.032 | 01234.892 |
| MC | 002.457 | 000.003 | 000.660 | 012.092 | 000.022 | 000.020 | 000.000 | 000.054 | 00389.894 |

23 **1.1.5.3 Formulas**

24 Worker Trips Emissions per Phase

- 25 VMT_{WT} = (1 * WT * PA) / 800
 26 VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)
 27 1: Conversion Factor man days to trips (1 trip / 1 man * day)
- 28 WT: Average Worker Round Trip Commute (mile)
- 29 PA: Paint Area (ft²)
- 30 800: Conversion Factor square feet to man days ($1 \text{ ft}^2 / 1 \text{ man * day}$)

| 1 | $V_{POL} = (VMT_{WT} * 0.002205 * EF_{POL} * VM) / 2000$ |
|---|--|
| 2 | V _{POL} : Vehicle Emissions (TONs) |
| 3 | VMT _{WT} : Worker Trips Vehicle Miles Travel (miles) |
| 4 | 0.002205: Conversion Factor grams to pounds |
| 5 | EF _{POL} : Emission Factor for Pollutant (grams/mile) |
| 6 | VM: Worker Trips On Road Vehicle Mixture (%) |
| 7 | 2000: Conversion Factor pounds to tons |

8 Off-Gassing Emissions per Phase

9 $VOC_{AC} = (AB * 2.0 * 0.0116) / 2000.0$ 10 VOC_{AC} : Architectural Coating VOC Emissions (TONs)11BA: Area of Building (ft²)122.0: Conversion Factor total area to coated area (2.0 ft² coated area / total area)130.0116: Emission Factor (lb/ft²)142000: Conversion Factor pounds to tons

15 **1.1.6 Construction – Paving Phase**

16 **1.1.6.1** Assumptions

17 Average Days worked per week: 5

18 Construction Exhaust

| Equipment Name | Number Of Equipment | Hours Per Day | |
|----------------------------|---------------------|---------------|--|
| Pavers Composite | 1 | 8 | |
| Paving Equipment Composite | 2 | 8 | |
| Rollers Composite | 2 | 6 | |

19 Vehicle Exhaust

20 Average Hauling Truck Round Trip Commute (mile): 20

21 Vehicle Exhaust Vehicle Mixture (%)

| | LDGV | LDGT | HDGV | LDDV | LDDT | HDDV | MC |
|------|------|------|------|------|------|--------|----|
| POVs | 0 | 0 | 0 | 0 | 0 | 100.00 | 0 |

22 Worker Trips

23 Average Worker Round Trip Commute (mile): 20

24 Worker Trips Vehicle Mixture (%)

| | LDGV | LDGT | HDGV | LDDV | LDDT | HDDV | MC |
|------|-------|-------|------|------|------|------|----|
| POVs | 50.00 | 50.00 | 0 | 0 | 0 | 0 | 0 |

25 1.1.6.2 Emission Factors

26 Construction Exhaust Emission Factors (lb/hour)

Excavators Composite

| | VOC | SOx | NOx | CO | PM10 | PM2.5 | CH4 | CO ₂ e |
|------------------|--------|--------|--------|--------|--------|--------|--------|-------------------|
| Emission Factors | 0.0559 | 0.0013 | 0.2269 | 0.5086 | 0.0086 | 0.0086 | 0.0050 | 119.70 |

27
| Graders Composite | | | | | | | | |
|----------------------|-------------|----------|--------|--------|--------|-------------------|-----------------|-------------------|
| | VOC | SOx | NOx | CO | PM10 | PM2.5 | CH4 | CO ₂ e |
| Emission Factors | 0.0676 | 0.0014 | 0.3314 | 0.5695 | 0.0147 | 0.0147 | 0.0061 | 132.89 |
| Other Construction E | quipment Co | omposite | | | | | | |
| | VOC | SOx | NOx | CO | PM10 | PM _{2.5} | CH4 | CO ₂ e |
| Emission Factors | 0.0442 | 0.0012 | 0.2021 | 0.3473 | 0.0068 | 0.0068 | 0.0039 | 122.60 |
| Rubber Tired Dozers | Composite | | | | | | | |
| | VOC | SOx | NOx | CO | PM10 | PM _{2.5} | CH ₄ | CO ₂ e |
| Emission Factors | 0.1671 | 0.0024 | 1.0824 | 0.6620 | 0.0418 | 0.0418 | 0.0150 | 239.45 |
| Scrapers Composite | | | | | | | | |
| | VOC | SOx | NOx | CO | PM10 | PM2.5 | CH4 | CO ₂ e |
| Emission Factors | 0.1495 | 0.0026 | 0.8387 | 0.7186 | 0.0334 | 0.0334 | 0.0134 | 262.81 |
| Tractors/Loaders/Bac | khoes Comp | osite | | | | | | |
| | VOC | SOx | NOx | CO | PM10 | PM2.5 | CH4 | CO ₂ e |
| Emission Factors | 0.0335 | 0.0007 | 0.1857 | 0.3586 | 0.0058 | 0.0058 | 0.0030 | 66.872 |

1 Vehicle Exhaust & Worker Trips Emission Factors (grams/mile)

| | VOC | SOx | NOx | СО | PM10 | PM2.5 | Pb | NH ₃ | CO ₂ e |
|------|---------|---------|---------|---------|---------|---------|---------|-----------------|-------------------|
| LDGV | 000.192 | 000.002 | 000.099 | 002.870 | 000.004 | 000.004 | 000.000 | 000.024 | 00303.869 |
| LDGT | 000.209 | 000.003 | 000.175 | 003.239 | 000.006 | 000.005 | 000.000 | 000.026 | 00396.310 |
| HDGV | 000.856 | 000.006 | 000.851 | 013.446 | 000.024 | 000.021 | 000.000 | 000.051 | 00912.039 |
| LDDV | 000.074 | 000.001 | 000.080 | 003.109 | 000.003 | 000.002 | 000.000 | 000.008 | 00307.078 |
| LDDT | 000.081 | 000.001 | 000.120 | 002.137 | 000.003 | 000.003 | 000.000 | 000.009 | 00358.668 |
| HDDV | 000.118 | 000.004 | 002.424 | 001.549 | 000.042 | 000.039 | 000.000 | 000.032 | 01234.892 |
| MC | 002.457 | 000.003 | 000.660 | 012.092 | 000.022 | 000.020 | 000.000 | 000.054 | 00389.894 |

2 1.1.6.3 Formulas

| 3 | Construction Exhaust Emissions per Phase |
|----|---|
| 4 | $CEE_{POL} = (NE * WD * H * EF_{POL}) / 2000$ |
| 5 | CEE _{POL} : Construction Exhaust Emissions (TONs) |
| 6 | NE: Number of Equipment |
| 7 | WD: Number of Total Workdays (days) |
| 8 | H: Hours Worked per Day (hours) |
| 9 | EF _{POL} : Emission Factor for Pollutant (lb/hour) |
| 10 | 2000: Conversion Factor pounds to tons |
| 11 | Vehicle Exhaust Emissions per Phase |
| 12 | $VMT_{VE} = PA * 0.25 * (1 / 27) * (1 / HC) * HT$ |
| 13 | VMT _{VE} : Vehicle Exhaust Vehicle Miles Travel (miles) |
| 14 | PA: Paving Area (ft ²) |
| 15 | 0.25: Thickness of Paving Area (ft) |
| 16 | $(1 / 27)$: Conversion Factor cubic feet to cubic yards $(1 yd^3 / 27 ft^3)$ |
| 17 | HC: Average Hauling Truck Capacity (yd ³) |
| 18 | (1 / HC): Conversion Factor cubic yards to trips (1 trip / HC yd ³) |
| 19 | HT: Average Hauling Truck Round Trip Commute (mile/trip) |
| 20 | $V_{POL} = (VMT_{VE} * 0.002205 * EF_{POL} * VM) / 2000$ |
| 21 | V _{POL} : Vehicle Emissions (TONs) |

| 1 2 3 4 5 | | VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles) 0.002205: Conversion Factor grams to pounds EF_{POL}: Emission Factor for Pollutant (grams/mile) VM: Vehicle Exhaust On Road Vehicle Mixture (%) 2000: Conversion Factor pounds to tons | | | | | | | | | | | |
|-----------------------|---|--|----------------------------|-------------------------|----------------|-----------------------------|----------------------|-----|--|--|--|--|--|
| 6 | Worker Tri | ps Emission | s per Phase | | | | | | | | | | |
| 7 | VM | $\Gamma_{WT} = WD *$ | WT * 1.25 * N | ЛЕ | | | | | | | | | |
| 8 | | VMT _{WT} : | Worker Trips | Vehicle Mile | s Travel (mil | es) | | | | | | | |
| 9 | WD: Number of Total Workdays (days) | | | | | | | | | | | | |
| 10 | WT: Average Worker Round Trip Commute (mile) | | | | | | | | | | | | |
| 11 | 1.25: Conversion Factor Number of Construction Equipment to Number of Works | | | | | | | | | | | | |
| 12 | | NE: Nun | nber of Constru | action Equipn | nent | | | | | | | | |
| 13 | V _{POL} | $= (VMT_{WT})$ | * 0.002205 * H | EF _{POL} * VM) | / 2000 | | | | | | | | |
| 14 | | V _{POL} : Ve | hicle Emission | ns (TONs) | | | | | | | | | |
| 15 | | VMT _{VE} : | Worker Trips | Vehicle Miles | s Travel (mile | es) | | | | | | | |
| 16 | | 0.002205 | 5: Conversion l | Factor grams | to pounds | | | | | | | | |
| 17 | | EF _{POL} : E | mission Factor | for Pollutant | (grams/mile) |) | | | | | | | |
| 18 | | VM: Wo | rker Trips On | Road Vehicle | Mixture (%) |) | | | | | | | |
| 19 | | 2000: Co | onversion Facto | or pounds to t | ons | | | | | | | | |
| 20 | Off-Gassing | Emissions | per Phase | | | | | | | | | | |
| 21 | VO | $C_{\rm P} = (2.62 * 1)$ | PA) / 43,560 | | | | | | | | | | |
| 22 | | VOC _P : P | aving VOC Er | nissions (TO) | Ns) | | | | | | | | |
| 23 | | 2.62: Em | ission Factor (| lb/acre) | , | | | | | | | | |
| 24 | | PA: Pavi | ng Area (ft ²) | | | | | | | | | | |
| 25 | | 43560: C | Conversion Fac | tor square fee | t to acre (43, | 560 ft ² / acre) | ² / acre) | | | | | | |
| 26 | 1.1.7 Op | eration – F | Personnel | | | | | | | | | | |
| 27 | 1.1.7.1 Ass | umptions | | | | | | | | | | | |
| 28 | Ave | rage Personn | el Round Trip | Commute (m | ile): 20 | | | | | | | | |
| 29 | Pers | onnel Work | Schedule: | X | , | | | | | | | | |
| 30 | | Full-Tim | e Personnel: | 5 Days Per V | Week | | | | | | | | |
| 31 | 1.1.7.2 Emi | ission Facto | ors | | | | | | | | | | |
| 32 | On Road Ve | ehicle Mixtu | re (%) | | | | | | | | | | |
| | | LDGV | LDGT | HDGV | LDDV | LDDT | HDDV | MC | | | | | |
| | POVs | 37.55 | 60.32 | 0 | 0.03 | 0.2 | 0 | 1.9 | | | | | |
| | GOVs | 54.49 | 37.73 | 4.67 | 0 | 0 | 3.11 | 0 | | | | | |

| | VOC | SOX | NO _X | CO | PM10 | PM2.5 | Pb | NH ₃ | CO ₂ e |
|------|---------|---------|-----------------|---------|---------|---------|---------|-----------------|-------------------|
| LDGV | 000.221 | 000.001 | 000.100 | 003.291 | 000.004 | 000.003 | 000.000 | 000.024 | 00309.498 |
| LDGT | 000.230 | 000.002 | 000.178 | 003.679 | 000.005 | 000.005 | 000.000 | 000.026 | 00401.828 |
| HDGV | 000.960 | 000.004 | 000.856 | 014.076 | 000.024 | 000.021 | 000.000 | 000.051 | 00923.477 |
| LDDV | 000.058 | 000.001 | 000.086 | 003.577 | 000.003 | 000.002 | 000.000 | 000.008 | 00314.547 |
| LDDT | 000.064 | 000.001 | 000.129 | 002.423 | 000.003 | 000.003 | 000.000 | 000.008 | 00365.414 |
| HDDV | 000.101 | 000.004 | 002.540 | 001.568 | 000.042 | 000.039 | 000.000 | 000.032 | 01254.683 |
| MC | 003.166 | 000.002 | 000.720 | 012.654 | 000.023 | 000.021 | 000.000 | 000.053 | 00388.847 |

1 On Road Vehicle Emission Factors (grams/mile)

2 **1.1.7.3 Formulas**

| 3 | Personnel Vehicle Miles Travel for Work Days per Year |
|----|--|
| 4 | $VMT_P = NP * WD * AC$ |
| 5 | VMT _P : Personnel Vehicle Miles Travel (miles/year) |
| 6 | NP: Number of Personnel |
| 7 | WD: Work Days per Year |
| 8 | AC: Average Commute (miles) |
| 9 | Total Vehicle Miles Travel per Year |
| 10 | $VMT_{Total} = VMT_{AD} + VMT_{C} + VMT_{SC} + VMT_{ANG} + VMT_{AFRC}$ |
| 11 | VMT _{Total} : Total Vehicle Miles Travel (miles) |
| 12 | VMT _{AD} : Active Duty Personnel Vehicle Miles Travel (miles) |
| 13 | VMT _C : Civilian Personnel Vehicle Miles Travel (miles) |
| 14 | VMT _{SC} : Support Contractor Personnel Vehicle Miles Travel (miles) |
| 15 | VMT _{ANG} : Air National Guard Personnel Vehicle Miles Travel (miles) |
| 16 | VMT _{AFRC} : Reserve Personnel Vehicle Miles Travel (miles) |
| 17 | Vehicle Emissions per Year |
| 18 | $V_{POL} = (VMT_{Total} * 0.002205 * EF_{POL} * VM) / 2000$ |
| 19 | V _{POL} : Vehicle Emissions (TONs) |
| 20 | VMT _{Total} : Total Vehicle Miles Travel (miles) |
| 21 | 0.002205: Conversion Factor grams to pounds |
| 22 | EF _{POL} : Emission Factor for Pollutant (grams/mile) |
| 23 | VM: Personnel On Road Vehicle Mixture (%) |
| 24 | 2000: Conversion Factor pounds to tons |
| 25 | 1.1.8 Operation – Emergency Generator |
| 26 | 1.1.8.1 Assumptions |
| 27 | Type of Fuel used in Emergency Generator: Diesel |
| 28 | Emergency Generator's Horsepower: 135 |
| 29 | Average Operating Hours Per Year (hours): 30 |

1 1.1.8.2 Emission Factors

2 Emergency Generators Emission Factor (lb/hp-hr)

| 2 Emergency Generators Emission Factor (10/np-nr) | | | | | | | | | | | | | |
|---|---|---|-----------------|---------------|-------------|-------------|--------------|-----------------|-------------------|--|--|--|--|
| | VOC | SOx | NOx | СО | PM10 | PM2.5 | Pb | NH ₃ | CO ₂ e | | | | |
| | 0.00279 | 0.00235 | 0.0115 | 0.00768 | 0.00251 | 0.00251 | 000.000 | 000.000 | 1.33 | | | | |
| 3 | 1.1.8.3 Fo | ormulas | . | Υ. | | | | | | | | | |
| 4 | Emergenc | y Generator | r Emissions | s per Year | | | | | | | | | |
| 5 | Ab | AEPOL - (NGEN * HP * OI * EFPOL) / 2000 AEPOL: Activity Emissions (TONs per Vear) | | | | | | | | | | | |
| 6 | | AEPO | L: Activity | Emissions (| TONs per Y | (ear) | | | | | | | |
| 1 | | HOEN: Number of Emergency Generators HP: Emergency Generator's Horsepower (hp) | | | | | | | | | | | |
| 8 | | HP: Emergency Generator's Horsepower (hp) OT: Average Operating Hours Per Vear (hours) | | | | | | | | | | | |
| 9 10 | OT: Average Operating Hours Per Year (hours) | | | | | | | | | | | | |
| 10 | EFPOL: Emission Factor for Pollutant (lb/hp-hr) | | | | | | | | | | | | |
| 11 | 1.1.9 Operation - Tanks | | | | | | | | | | | | |
| 12 | 1.1.9.1 As | sumptions | | | | | | | | | | | |
| 13 14 15 16 17 18 19 20 | Chemical Name: Gasoline (RVP 9)Chemical Name: Gasoline (RVP 9)Chemical Category: Petroleum DistillatesChemical Density: 5.6Vapor Molecular Weight (lb/lb-mole): 67Stock Vapor Density (lb/ft ³): 0.0508889883159548Vapor Pressure: 4.19185Vapor Space Expansion Factor (dimensionless): 0.068 | | | | | | | | | | | | |
| 21 | 1.1.9.2 Fo | ormulas | | | | | | | | | | | |
| 22 | Vapor Spa | ace Volume | | | | | | | | | | | |
| 23 | VS | SV = (PI / 4) | * D^2 * L / 2 | 2 | | | | | | | | | |
| 24 | | VSV: | Vapor Space | e Volume (f | t^3) | | | | | | | | |
| 25 | | PI: PI | Math Const | tant | | | | | | | | | |
| 26 | | D ² : Ta | ank Diamete | er (ft) | | | | | | | | | |
| 27 | | L: Tar | nk Length (f | t) | | | | | | | | | |
| 28 | | 2: Cor | nversion Fac | ctor (Vapor S | Space Volui | ne is assum | ed to be one | -half of the | tank | | | | |
| 29 | | volume | e) | | | | | | | | | | |
| 30 | Vented Va | por Satura | tion Factor | | | | | | | | | | |
| 31 | V١ | /SF = 1 / (1) | + (0.053 * | VP * L / 2)) | | | | | | | | | |
| 32 | | VVSF | : Vented Va | apor Saturati | on Factor (| dimensionle | ess) | | | | | | |
| 33 | | 0.053: | Constant | | | | | | | | | | |
| 34 | | VP: V | apor Pressu | re (psia) | | | | | | | | | |
| 35 | | L: Tar | nk Length (f | t) | | | | | | | | | |

| 1 | Standing Storage Loss per Year |
|----|---|
| 2 | SSL _{VOC} = 365 * VSV * SVD * VSEF * VVSF / 2000 |
| 3 | SSL _{VOC} : Standing Storage Loss Emissions (TONs) |
| 4 | 365: Number of Daily Events in a Year (Constant) |
| 5 | VSV: Vapor Space Volume (ft ³) |
| 6 | SVD: Stock Vapor Density (lb/ft ³) |
| 7 | VSEF: Vapor Space Expansion Factor (dimensionless) |
| 8 | VVSF: Vented Vapor Saturation Factor (dimensionless) |
| 9 | 2000: Conversion Factor pounds to tons |
| 10 | Number of Turnovers per Year |
| 11 | NT = (7.48 * ANT) / ((PI / 4.0) * D * L) |
| 12 | NT: Number of Turnovers per Year |
| 13 | 7.48: Constant |
| 14 | ANT: Annual Net Throughput |
| 15 | PI: PI Math Constant |
| 16 | D ² : Tank Diameter (ft) |
| 17 | L: Tank Length (ft) |
| 18 | Working Loss Turnover (Saturation) Factor per Year |
| 19 | WLSF = (18 + NT) / (6 * NT) |
| 20 | WLSF: Working Loss Turnover (Saturation) Factor per Year |
| 21 | 18: Constant |
| 22 | NT: Number of Turnovers per Year |
| 23 | 6: Constant |
| 24 | Working Loss per Year |
| 25 | WL _{VOC} = 0.0010 * VMW * VP * ANT * WLSF / 2000 |
| 26 | 0.0010: Constant |
| 27 | VMW: Vapor Molecular Weight (lb/lb-mole) |
| 28 | VP: Vapor Pressure (psia) |
| 29 | ANT: Annual Net Throughput |
| 30 | WLSF: Working Loss Turnover (Saturation) Factor |
| 31 | 2000: Conversion Factor pounds to tons |
| 32 | 1.2 Proposed Action Air Emissions Analysis |
| 33 | Action Location |
| 34 | State: Texas |
| 35 | County: Maverick |
| 36 | Regulatory Areas: Not in a Regulatory Area |
| 37 | Construction Period |
| 38 | Start: February 2024 |
| 39 | End: December 2029 |
| | |

1 **1.2.1** Action Description

2 The Proposed Action is to construct, operate, and maintain a JPC in Maverick County, Texas on a 62.76-

acre property. The JPC would be approximately 200,000 ft² and would accommodate 200 staff. The JPC
 would include additional support facilities and structures including public and private vehicle parking areas,

would include additional support facilities and structures including public and private vehicle parking areas,
a fuel island with above ground storage tanks, vehicle storage facility, loading facilities, vehicle wash rack,

a fuel island with above ground storage tanks, vehicle storage facility, loading facilities, vehicle wash rack,
canine kennel, communications tower, stormwater management system, helipad, roadways, emergency

- 7 canne kennel, communications tower, stormwater management system, nenpad, roadways, ener
- 7 generators, and all necessary utilities.
- 8 For the purposes of this analysis, it was assumed 37.06 acres out of the 62.76 acres to be acquired would 9 consist of the JPC and support facilities. It was assumed all existing soft-sides processing facilities currently

10 at the site would be removed prior to the construction period and removal of such structures would not

11 require major demolition. In addition, it was assumed 85 percent of the 37.06-acre site would be developed

12 (65 percent structures and 20 percent pavement). The JPC would be constructed over an 11-month

13 construction period from February 2024 through December 2024. The rest of the site, including ancillary

14 and support facilities, would be developed over the next 5 years (i.e., 2025 through 2029).

15 The analysis also assumes the following: (1) no earth materials are required to be hauled on- or off-site due

16 to site grading or trenching, excavated spoils will be used on-site and (2) if required, a heat pump or electric

17 heating system will be installed at the JPC to supply heat; natural gas-, propane-, or oil-fired heaters would

18 not be used.

19 **1.2.1.1 JPC Construction**

The JPC would be constructed over an 11-month construction period from February 2024 through December 2024. It was assumed the JPC site would cover approximately 7 acres and would include the 200,000-ft² JPC and approximately 1.4 acres of pavement (e.g., parking, driveways, paved storage, sidewalks).

Site grading would occur on approximately 7 acres (304,920 ft²). Site grading would begin in February
 2024 and last approximately 2 months.

26 Trenching for site utilities (approximately 1,750 linear feet) and perimeter fencing (approximately 2,500

27 linear feet) would occur on an area totaling approximately 7,750 ft². A 3-foot trench width for utilities and

28 a 1-foot trench width for perimeter fencing was assumed. Trenching would begin in April 2024 and last

- approximately 1 month.
- Construction would include the 200,000-ft² JPC. Construction would begin in May 2024 and last
 approximately 6 months.
- Architectural coatings would be applied to the JPC, for a total of 200,000 ft². Architectural coating
 application would begin in October 2024 and last approximately 1 month.

Paving for parking, driveways, paved storage, and sidewalks would occur on approximately 1.4 acres
 (60,984 ft²). Paving would begin in November 2024 and last approximately 2 months.

1 1.2.1.2 Ancillary Support Facilities Construction

- 2 The rest of the 37.06-acre site (i.e., 30.06 acres) would be developed for support facilities and structures. It
- 3 was assumed approximately 65 percent of the site would contain structures (19.5 acres) and 20 percent of
- 4 the site would contain pavement (6 acres). For the purposes of this analysis, the site would be developed
- 5 over a 5-year period from 2025 through 2029.
- 6 Site grading would occur on approximately 30.06 acres (1,309,413.6 ft²). Site grading would begin in
 7 January 2025 and last approximately 6 months.
- 8 Trenching for site utilities (approximately 3,000 linear feet) and perimeter fencing (approximately 5,000
- 9 linear feet) would occur on an area totaling approximately 14,000 ft². A 3-foot trench width for utilities and
- 10 a 1-foot trench width for perimeter fencing was assumed. Trenching would begin in July 2025 and last
- 11 approximately 6 months.
- 12 Construction would include approximately 19.5 acres of structures (849,420 ft²). A 12-foot building height
- 13 was assumed for all structures. Construction would begin in January 2026 and last approximately 3 years.
- Architectural coatings would be applied to all structures, for a total of 849,420 ft². Architectural coating
 application would begin in January 2029 and last approximately 3 months.
- Paving for parking, driveways, paved storage, and sidewalks would occur on approximately 6 acres
 (261,360 ft²). Paving would begin in April 2029 and last approximately 9 months.

18 **1.2.1.3 Personnel**

19 The JPC would accommodate 200 personnel. To equate operational emissions, it was assumed personnel20 would commute to the JPC starting in 2030.

21 1.2.1.4 Emergency Generators

Five diesel generators would be installed at the JPC. To equate operational emissions, it was assumed dieselgenerators would become operational in 2030.

24 1.2.1.5 Tanks

- 25 It was assumed two 5,000-gallon aboveground storage tanks would be installed for the temporary fuel
- 26 island. It was assumed each tank would service 50 vehicles per month (50 gallons per vehicle per month)
- 27 year round, for a total of 30,000 gallons per year. To equate operational emissions, it was assumed fuel
- 28 dispensing would begin in 2030.

29 1.2.2 Assumptions

30 1.2.2.1 JPC Construction

31 Site Grading Phase

- 32 Start: February 2024
- **33** Phase duration: 2 months
- 34 Area of site to be graded (ft^2): 30,420
- 35 Amount of material to be hauled offsite (yd^3) : 0

| 1 | Trenching/Excavating Phase |
|--|---|
| 2 | Start: April 2024 |
| 3 | Phase duration: 1 month |
| 4 | Area of site to be trenched/excavated (ft ²): 7,750 |
| 5 | Amount of material to be hauled on or offsite (yd ³): 0 |
| 6 | Building Construction Phase |
| 7 | Start: May 2024 |
| 8 | Phase duration: 6 months |
| 9 | Area of building (ft ²): 200,000 |
| 10 | Height of building (ft): 20 |
| 11 | Architectural Coatings Phase |
| 12 | Start: October 2024 |
| 13 | Phase duration: 1 month |
| 14 | Total square footage (ft ²): 200,000 |
| 15 | Paving Phase |
| 16 | Start: November 2024 |
| 17 | Phase duration: 2 months |
| 18 | Paving area (ft ²): 60,984 |
| 19 | 1.2.2.2 Ancillary Support Facilities Construction |
| | |
| 20 | Site Grading Phase |
| 20 21 | Site Grading Phase Start: January 2025 |
| 20 21 22 | Site Grading Phase Start: January 2025 Phase duration: 6 months |
| 20 21 22 23 | Site Grading Phase Start: January 2025 Phase duration: 6 months Area of site to be graded (ft ²): 1,309,413.6 |
| 20 21 22 23 24 | Site Grading Phase Start: January 2025 Phase duration: 6 months Area of site to be graded (ft ²): 1,309,413.6 Amount of material to be hauled offsite (yd ³): 0 |
| 20 21 22 23 24 25 | Site Grading Phase Start: January 2025 Phase duration: 6 months Area of site to be graded (ft ²): 1,309,413.6 Amount of material to be hauled offsite (yd ³): 0 Trenching/Excavating Phase |
| 20 21 22 23 24 25 26 | Site Grading Phase Start: January 2025 Phase duration: 6 months Area of site to be graded (ft ²): 1,309,413.6 Amount of material to be hauled offsite (yd ³): 0 Trenching/Excavating Phase Start: July 2025 |
| 20 21 22 23 24 25 26 27 | Site Grading Phase Start: January 2025 Phase duration: 6 months Area of site to be graded (ft ²): 1,309,413.6 Amount of material to be hauled offsite (yd ³): 0 Trenching/Excavating Phase Start: July 2025 Phase duration: 6 months |
| 20 21 22 23 24 25 26 27 28 | Site Grading Phase Start: January 2025 Phase duration: 6 months Area of site to be graded (ft ²): 1,309,413.6 Amount of material to be hauled offsite (yd ³): 0 Trenching/Excavating Phase Start: July 2025 Phase duration: 6 months Area of site to be trenched/excavated (ft ²): 14,000 |
| 20 21 22 23 24 25 26 27 28 29 | Site Grading Phase Start: January 2025 Phase duration: 6 months Area of site to be graded (ft ²): 1,309,413.6 Amount of material to be hauled offsite (yd ³): 0 Trenching/Excavating Phase Start: July 2025 Phase duration: 6 months Area of site to be trenched/excavated (ft ²): 14,000 Amount of material to be hauled on or offsite (yd ³): 0 |
| 20 21 22 23 24 25 26 27 28 29 30 | Site Grading Phase Start: January 2025 Phase duration: 6 months Area of site to be graded (ft ²): 1,309,413.6 Amount of material to be hauled offsite (yd ³): 0 Trenching/Excavating Phase Start: July 2025 Phase duration: 6 months Area of site to be trenched/excavated (ft ²): 14,000 Amount of material to be hauled on or offsite (yd ³): 0 |
| 20 21 22 23 24 25 26 27 28 29 30 31 | Site Grading Phase Start: January 2025 Phase duration: 6 months Area of site to be graded (ft²): 1,309,413.6 Amount of material to be hauled offsite (yd³): 0 Trenching/Excavating Phase Start: July 2025 Phase duration: 6 months Area of site to be trenched/excavated (ft²): 14,000 Amount of material to be hauled on or offsite (yd³): 0 Building Construction Phase Start: January 2026 |
| 20 21 22 23 24 25 26 27 28 29 30 31 32 | Site Grading Phase Start: January 2025 Phase duration: 6 months Area of site to be graded (ft²): 1,309,413.6 Amount of material to be hauled offsite (yd³): 0 Trenching/Excavating Phase Start: July 2025 Phase duration: 6 months Area of site to be trenched/excavated (ft²): 14,000 Amount of material to be hauled on or offsite (yd³): 0 Building Construction Phase Start: January 2026 Phase duration: 36 months |
| 20 21 22 23 24 25 26 27 28 29 30 31 32 33 | Site Grading Phase Start: January 2025 Phase duration: 6 months Area of site to be graded (ft²): 1,309,413.6 Amount of material to be hauled offsite (yd³): 0 Trenching/Excavating Phase Start: July 2025 Phase duration: 6 months Area of site to be trenched/excavated (ft²): 14,000 Amount of material to be hauled on or offsite (yd³): 0 Building Construction Phase Start: January 2026 Phase duration: 36 months Area of building (ft²): 849,420 |
| 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 | Site Grading PhaseStart: January 2025Phase duration: 6 monthsArea of site to be graded (ft²): 1,309,413.6Amount of material to be hauled offsite (yd³): 0Trenching/Excavating PhaseStart: July 2025Phase duration: 6 monthsArea of site to be trenched/excavated (ft²): 14,000Amount of material to be hauled on or offsite (yd³): 0Building Construction PhaseStart: January 2026Phase duration: 36 monthsArea of building (ft²): 849,420Height of building (ft): 12 |
| 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 | Site Grading Phase Start: January 2025 Phase duration: 6 months Area of site to be graded (ft²): 1,309,413.6 Amount of material to be hauled offsite (yd³): 0 Trenching/Excavating Phase Start: July 2025 Phase duration: 6 months Area of site to be trenched/excavated (ft²): 14,000 Amount of material to be hauled on or offsite (yd³): 0 Building Construction Phase Start: January 2026 Phase duration: 36 months Area of building (ft²): 849,420 Height of building (ft): 12 |
| 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 | Site Grading Phase Start: January 2025 Phase duration: 6 months Area of site to be graded (ft²): 1,309,413.6 Amount of material to be hauled offsite (yd³): 0 Trenching/Excavating Phase Start: July 2025 Phase duration: 6 months Area of site to be trenched/excavated (ft²): 14,000 Amount of material to be hauled on or offsite (yd³): 0 Building Construction Phase Start: January 2026 Phase duration: 36 months Area of building (ft²): 849,420 Height of building (ft): 12 Architectural Coatings Phase Start: January 2029 |
| 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 | Site Grading Phase Start: January 2025 Phase duration: 6 months Area of site to be graded (ft²): 1,309,413.6 Amount of material to be hauled offsite (yd³): 0 Trenching/Excavating Phase Start: July 2025 Phase duration: 6 months Area of site to be trenched/excavated (ft²): 14,000 Amount of material to be hauled on or offsite (yd³): 0 Building Construction Phase Start: January 2026 Phase duration: 36 months Area of building (ft²): 849,420 Height of building (ft): 12 Architectural Coatings Phase Start: January 2029 Phase duration: 3 months |
| 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 | Site Grading Phase Start: January 2025 Phase duration: 6 months Area of site to be graded (ft²): 1,309,413.6 Amount of material to be hauled offsite (yd³): 0 Trenching/Excavating Phase Start: July 2025 Phase duration: 6 months Area of site to be trenched/excavated (ft²): 14,000 Amount of material to be hauled on or offsite (yd³): 0 Building Construction Phase Start: January 2026 Phase duration: 36 months Area of building (ft²): 849,420 Height of building (ft): 12 Architectural Coatings Phase Start: January 2029 Phase duration: 3 months Total square footage (ft²): 849,420 |

| 1 | Paving | g Phase |
|----|---------|---|
| 2 | | Start: April 2029 |
| 3 | | Phase duration: 9 months |
| 4 | | Paving area (ft ²): 261,360 |
| 5 | 1.2.2.3 | 3 Operations |
| 6 | Person | nnel - Addition of 200 Personnel |
| 7 | | Start: January 2030 |
| 8 | | End: Indefinite |
| 9 | | Full-Time Personnel: 200 |
| 10 | Emerg | ency Generator – Addition of 5 Emergency Generators |
| 11 | | Start: January 2030 |
| 12 | | End: Indefinite |
| 13 | | Type of Fuel used in Emergency Generator: Diesel |
| 14 | | Number of Emergency Generators: 5 |
| 15 | Tanks | – Fuel Storage and Dispensing (Tank 1) |
| 16 | | Start: January 2030 |
| 17 | | End: Indefinite |
| 18 | | Type of Tank: Horizontal Tank |
| 19 | | Tank Length (ft): 16 |
| 20 | | Tank Diameter (ft): 7 |
| 21 | | Annual Net Throughput (gallon/year): 30,000 |
| 22 | Tanks | – Fuel Storage and Dispensing (Tank 2) |
| 23 | | Start: January 2030 |
| 24 | | End: Indefinite |
| 25 | | Type of Tank: Horizontal Tank |
| 26 | | Tank Length (ft): 16 |
| 27 | | Tank Diameter (ft): 7 |
| 28 | | Annual Net Throughput (gallon/year): 30,000 |
| 29 | 1.2.3 | Proposed Action Emissions Summary |

Proposed Action Total Estimated Construction Emissions – JPC Construction (tons)

| | VOC | SOx | NOx | CO | PM10 | PM _{2.5} | Pb | NH ₃ | CO ₂ e |
|-----------|----------|----------|----------|----------|----------|-------------------|-------|-----------------|-------------------|
| Emissions | 2.559161 | 0.004257 | 1.481955 | 1.897417 | 0.737752 | 0.055091 | 0.000 | 0.003412 | 473.3 |

Proposed Action Total Estimated Construction Emissions – Ancillary Support Facilities Construction (tons)

| | VOC | SOx | NOx | СО | PM10 | PM _{2.5} | Pb | NH ₃ | CO ₂ e |
|----------|-----------|----------|----------|-----------|-----------|-------------------|-------|-----------------|-------------------|
| Emission | s 11.5134 | 0.032347 | 9.157733 | 13.520216 | 79.321919 | 0.329424 | 0.000 | 0.012613 | 3293.6 |

1 Proposed Action Estimated Operations Emissions – Addition of Personnel (tons)

| . | | A | | | × / | | | | | |
|-----------|----------|----------|----------|----------|----------|-------------------|-------|----------|-------------------|--|
| | VOC | SOx | NOx | CO | PM10 | PM _{2.5} | Pb | NH3 | CO ₂ e | |
| Emissions | 0.288928 | 0.003004 | 0.170473 | 4.080461 | 0.005259 | 0.004501 | 0.000 | 0.029515 | 416.9 | |

2 Proposed Action Estimated Operations Emissions – Addition of Emergency Generators (tons)

| - | | - | | • | | | | | |
|-----------|----------|----------|----------|---------|----------|----------|-------|-------|-------------------|
| | VOC | SOx | NOx | CO | PM10 | PM2.5 | Pb | NH3 | CO ₂ e |
| Emissions | 0.028249 | 0.023794 | 0.116438 | 0.07776 | 0.025414 | 0.025414 | 0.000 | 0.000 | 13.5 |

3 Proposed Action Estimated Operations Emissions - Fuel Storage and Dispensing (Tank 1)

| | VOC | SOx | NOx | CO | PM10 | PM _{2.5} | Pb | NH ₃ | CO ₂ e |
|-----------|----------|-------|-------|-------|-------|-------------------|-------|-----------------|-------------------|
| Emissions | 0.855146 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |

4 Proposed Action Estimated Operations Emissions - Fuel Storage and Dispensing (Tank 2)

| _ | | _ | | | | | | | |
|-----------|----------|-------|-----------------|-------|------------------|-------------------|-------|-----------------|-------------------|
| | VOC | SOx | NO _X | CO | PM ₁₀ | PM _{2.5} | Pb | NH ₃ | CO ₂ e |
| Emissions | 0.855146 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |

5 Proposed Action Total Estimated Emissions by Year (tpy)

| A | | | | | | | | | | | |
|---------------------|--------|-------|-------|-------|--------|-------------------|---------|-------------------|--|--|--|
| | VOC | SOx | NOx | CO | PM10 | PM _{2.5} | Pb | CO ₂ e | | | |
| 2024 | 2.559 | 0.004 | 1.482 | 1.897 | 0.738 | 0.055 | < 0.001 | 473.3 | | | |
| 2025 | 0.584 | 0.011 | 3.101 | 3.880 | 79.109 | 0.117 | < 0.001 | 1,090.1 | | | |
| 2026 | 0.298 | 0.006 | 1.690 | 2.756 | 0.053 | 0.053 | < 0.001 | 656.8 | | | |
| 2027 | 0.298 | 0.006 | 1.690 | 2.756 | 0.053 | 0.053 | < 0.001 | 656.8 | | | |
| 2028 | 0.298 | 0.006 | 1.690 | 2.756 | 0.053 | 0.053 | < 0.001 | 656.8 | | | |
| 2029 | 10.035 | 0.002 | 0.987 | 1.373 | 0.054 | 0.054 | < 0.001 | 233.2 | | | |
| 2030 (steady state) | 2.027 | 0.027 | 0.287 | 4.158 | 0.031 | 0.030 | < 0.001 | 430.3 | | | |

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