

PORT ISABEL SERVICE PROCESSING CENTER

FINAL ENVIRONMENTAL ASSESSMENT



**DEPARTMENT OF HOMELAND SECURITY
IMMIGRATION AND CUSTOMS ENFORCEMENT**

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ACRONYMS AND ABBREVIATIONS

$\mu\text{g}/\text{m}^3$	Micrograms per Cubic Meter
ACA	American Correctional Association
ACGIH	American Conference of Governmental Industrial Hygienists
ACHP	Advisory Council on Historic Preservation
ACM	Asbestos-containing Materials
ADA	Americans with Disabilities Act
APE	Area of Potential Effect
AQCR	Air Quality Control Region
ARPA	Archaeological and Historic Preservation Act
AST	Aboveground Storage Tanks
bgs	below ground surface
BLS	Bureau of Labor Statistics
BMP	Best Management Practice
CAA	Clean Air Act
CATEX	Categorical Exclusion
CCRMA	Cameron County Regional Mobility Authority
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CEQ	Council on Environmental Quality
CESQG	Conditionally Exempt Small Quantity Generator
CFR	Code of Federal Regulations
CH ₄	Methane
CMP	Coastal Management Plan
CO	Carbon Monoxide
CO ₂	Carbon Dioxide
CT	Census Tract
CWA	Clean Water Act
dB	Decibel
dBA	A-weighted decibels
DDE	dichlorodiphenyldichloroethylene
DHHS	Department of Health and Human Services
DHS	Department of Homeland Security
EA	Environmental Assessment
EIS	Environmental Impact Statement
EISA	Energy Independence and Security Act
EL	Excursion Limit
EO	Executive Order

ERHWSC	East Rio Hondo Water Supply Corporation
ERO	Enforcement and Removal Operations
ESA	Endangered Species Act
FCA	Facility Condition Assessment
FEMA	Federal Emergency Management Agency
FERC	Federal Energy Regulatory Commission
FM	Farm to Market (road)
FUDS	Formerly used Defense Site
FY	Fiscal Year
GHG	Greenhouse Gas
GLO	General Land Office
gpd	gallons per day
gsf	gross square feet
GWP	Global Warming Potential
HAP	Hazardous Air Pollutants
HDA	Health Development Agency
HVAC	Heating, Ventilation, and Air Conditioning
ICE	Immigration and Customs Enforcement
INA	Immigration and Nationality Act
INS	Immigration and Naturalization Service
IPCC	Intergovernmental Panel on Climate Change
LAA	Laredo silty clay loam (zero to one percent slopes)
LAB	Laredo silty clay loam (one to three percent slopes)
LBP	Lead-Based Paint
LC	Laredo silty clay loam (saline)
LG	Laredo-Urban land complex
LM	Lomalta clay
LNG	Liquefied Natural Gas
MBTA	Migratory Bird Treaty Act
MC	Munition Constituents
MD	Munition Debris
MDP	Master Development Plan
MEC	Munition and Explosives of Concern
MOU	Memorandum of Understanding
MRS	Munitions Response Site
N ₂ O	Nitrous Oxide
NAAQS	National Ambient Air Quality Standards
NAAS	Naval Auxiliary Air Station

NAGPRA	Native American Graves Protection and Repatriation Act
NDAA	National Defense Authorization Act
NDS	National Detention Standards
NEPA	National Environmental Policy Act
NESHAP	National Emission Standards for Hazardous Air Pollutants
NFIP	National Flood Insurance Program
NHPA	National Historic Preservation Act
NO ₂	Nitrogen Dioxide
NO _x	Nitrogen oxides
NOAA	National Oceanic and Atmospheric Administration
NPDES	National Pollutant Discharge Elimination System
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
NSPS	New Source Performance Standards
NWR	National Wildlife Refuge
O ₃	Ozone
OB/OD	Open Burn/Open Detonation
OM	Olmito silty clay
ON	Olmito-Urban land complex
OSHA	Occupational Safety and Health Administration
Pb	Lead
PBNDS	Performance-Based National Detention Standards
PCB	polychlorinated biphenyl
PCL	Protective Concentration Level
PCPI	Per Capita Personal Income
PEL	Permissible Exposure Limit
PIDC	Port Isabel Detention Center
PM	Particulate matterPM _{2.5} Very Fine Particulate Matter
PM ₁₀	Fine Particulate Matter
POV	Privately-Owned Vehicle
ppb	Parts per Billion
ppm	Parts per Million
PSD	Prevention of Significant Deterioration
PVC	Polyvinyl Chloride
QR	Qualitative Reconnaissance
RCP	Reinforced Concrete Pipe
RCRA	Resource Conservation and Recovery Act
RGLNG	Rio Grande Liquefied Natural Gas

ROC	Region of Comparison
ROI	Region of Influence
SDWA	Safe Drinking Water Act
SegID	Segment Identifier
sf	square foot
SH	State Highway
SHPO	State Historic Preservation Officer
SHU	Secure Housing Unit
SIP	State Implementation Plan
SO ₂	Sulfur Dioxide
SPC	Service Processing Center
SPCC	Spill Prevention, Control, and Countermeasures
SRT	Special Response Team
TCEQ	Texas Commission on Environmental Quality
TCLP	Toxicity Characteristic Leaching Procedure
THPO	Tribal Historic Preservation Officer
TPWD	Texas Parks and Wildlife Department
TSCA	Toxic Substances Control Act
TWA	Time Weighted Average
TX	Texas
TXNDD	Texas Natural Diversity Database
U.S.	United States
USACE	United States Army Corps of Engineers
USC	United States Code
USCB	United States Census Bureau
USDOT	United States Department of Transportation
USEIA	United States Energy Information Administration
USEPA	United States Environmental Protection Agency
USFS	United States Forest Service
USFWS	United States Fish and Wildlife Service
USGCRP	United States Global Change Research Program
VOC	Volatile Organic Compound
WWTP	wastewater treatment plant

1.0 PURPOSE AND NEED FOR THE PROJECT

The Port Isabel Service Processing Center (commonly referred to as the Port Isabel Detention Center or PIDC) is located at 27991 Buena Vista Boulevard, Los Fresnos, Texas. Los Fresnos is part of Cameron County, the southernmost county in Texas. The U.S./Mexico border lies to the south of Cameron County. The Department of Homeland Security's (DHS) Immigration and Customs Enforcement (ICE) proposes a variety of improvements at the existing Port Isabel Service Processing Center (SPC), including construction, renovations, expansion, and demolition. ICE has prepared this Final Environmental Assessment (EA) in compliance with the National Environmental Policy Act (NEPA) of 1969 (42 United States Code [USC] 4321 *et seq.*) and other relevant federal and state laws and regulations. This Final EA discloses the direct, indirect, and cumulative environmental impacts that would result from the proposed action and alternatives.

1.1 INTRODUCTION

ICE is the principal investigative arm of DHS and the second largest investigative agency in the federal government. ICE enforces federal laws governing border control, customs, trade and immigration to promote homeland security and public safety. The agency was created in 2003 through a merger of the investigative and interior enforcement elements of the former U.S. Customs Service and the former Immigration and Naturalization Service (INS). The Office of Enforcement and Removal Operations (ERO), one of three operational divisions that comprises ICE, enforces the nation's immigration laws through identification, apprehension and removal of unlawfully present aliens from the U.S. in accordance with the Immigration and Nationality Act (INA) of 1952, as amended.

Due to the nature of its mission, the ICE ERO maintains custody of a highly transient, diverse population of detainees that requires numerous services and facilities. The current ICE detention system consists of local and state facilities acquired through intergovernmental service agreements; contract detention facilities; Bureau of Prisons facilities; and detention SPC facilities owned by ICE. The Port Isabel SPC serves as a temporary detention facility for persons who have entered the U.S. illegally or are in violation of their immigration status and are awaiting the outcome of their removal proceedings. The SPC currently houses both male and female adult detainees and has a bed capacity of 1,200.

SPCs operate in accordance with ICE Performance-Based National Detention Standards (PBNDS) and the American Correctional Association (ACA) standards that detail the conditions of confinement and access to legal representation for detainees, including the overall safe and secure operation of the national immigration detention system. When ICE was formed, the agency operated its detention system under a set of National Detention Standards (NDS), which were based on the policies and procedures that existed in 2000. ICE subsequently revised these standards to more clearly delineate the results or outcomes that adherence to requirements would accomplish, through creation of the PBNDS 2008. The PBNDS 2008 were also designed to improve safety, security and conditions of confinement for detainees. ICE further revised its detention standards in 2011 (PBNDS, 2011) to improve medical and mental health services, increase access to legal services and religious opportunities, improve communication with detainees with limited English proficiency, improve the process for reporting and responding to complaints, reinforce protections against sexual abuse and assault, and increase recreation and visitation.

ACA standards establish an operational structure for correctional facilities and other related facilities and programs, and they are designed to facilitate agencies in developing their own policies and procedures to govern their everyday operations. Since the mid-2000s, ACA standards have relied on a performance-

based model in which agencies collect, track and analyze internal outcomes related to each standard to gauge their performance and adjust their operations accordingly. The ACA publishes 22 different manuals for all areas of the field of corrections. This includes dedicated manuals for the operation of different types of correctional facilities including prisons, jails, juvenile correctional facilities, juvenile detention facilities, probation/parole agencies and others. ACA publishes standards for correctional programs that impact multiple facilities such as correctional industries (manufacturing programs), food service, electronic monitoring, therapeutic communities and central office administration. ACA standards relating to safety require adherence to all federal, state and local fire and safety codes; emergency planning and preparation requirements; and the provision of related training and materials for staff and inmates. Security standards mandate inspections of all firearms and training of armed officers; visitor and staff searches and tracking procedures; and inmate counting and tracking procedures (ACA, 2018).

Secure facilities such as jails and prisons must operate effectively as self-contained communities in which all necessary goods and services are provided in a safe, secure, and controlled manner. The Port Isabel SPC plays a critical role in providing secure detainee housing as well as providing for the personal well-being of detainees, including food, medical and emergency dental care, clothing, reasonable recreational facilities, and legal and other services while in detention prior to deportation, transportation or release. The Port Isabel SPC also provides workspace and other areas for approximately 817 employees. The facility provides accommodation for employee parking, training, and other support services for facility operations such as wastewater treatment, site maintenance, vehicular fleet maintenance, pest management, and fire protection services.

ICE proposes to conduct improvements to multiple buildings and infrastructure throughout the Port Isabel SPC facility (or Project area), including renovations, demolition, and new construction. The proposed Port Isabel SPC improvements are herein referred to as the "Project."

1.2 SITE LOCATION AND LAYOUT

To the east, Cameron County borders the Gulf of Mexico. The counties of Hidalgo and Willacy lie to the west and north of Cameron County, respectively. The Port Isabel SPC site is bordered by the Cameron County Airport to the north, the 45,000-acre Laguna Atascosa National Wildlife Refuge (NWR) to the east, and primarily agricultural land to the south and west. The U.S./Mexico border is approximately 22 miles south of the Port Isabel SPC. Figure 1.2-1 shows the regional location of the Port Isabel SPC. Figure 1.2-2 shows the Port Isabel SPC Project area and vicinity.

The western half of the 364-acre parcel, approximately 180 acres, is primary native shrubland, which includes important habitat for the federally endangered ocelot (*Leopardus pardalis*). The majority of the Port Isabel SPC facilities are situated on 184 acres on the eastern half of the property. This layout intentionally avoids disturbances on the western side of the property, in accordance with an agreement between ICE and the U.S. Fish and Wildlife Service (USFWS) to protect ocelot habitat. This agreement, or memorandum of understanding (MOU), with USFWS specifies conditions affecting development activities on the western portion of the property and is provided in Appendix A. Additionally, the property is located within a major migratory bird flyway and provides migratory bird habitat.

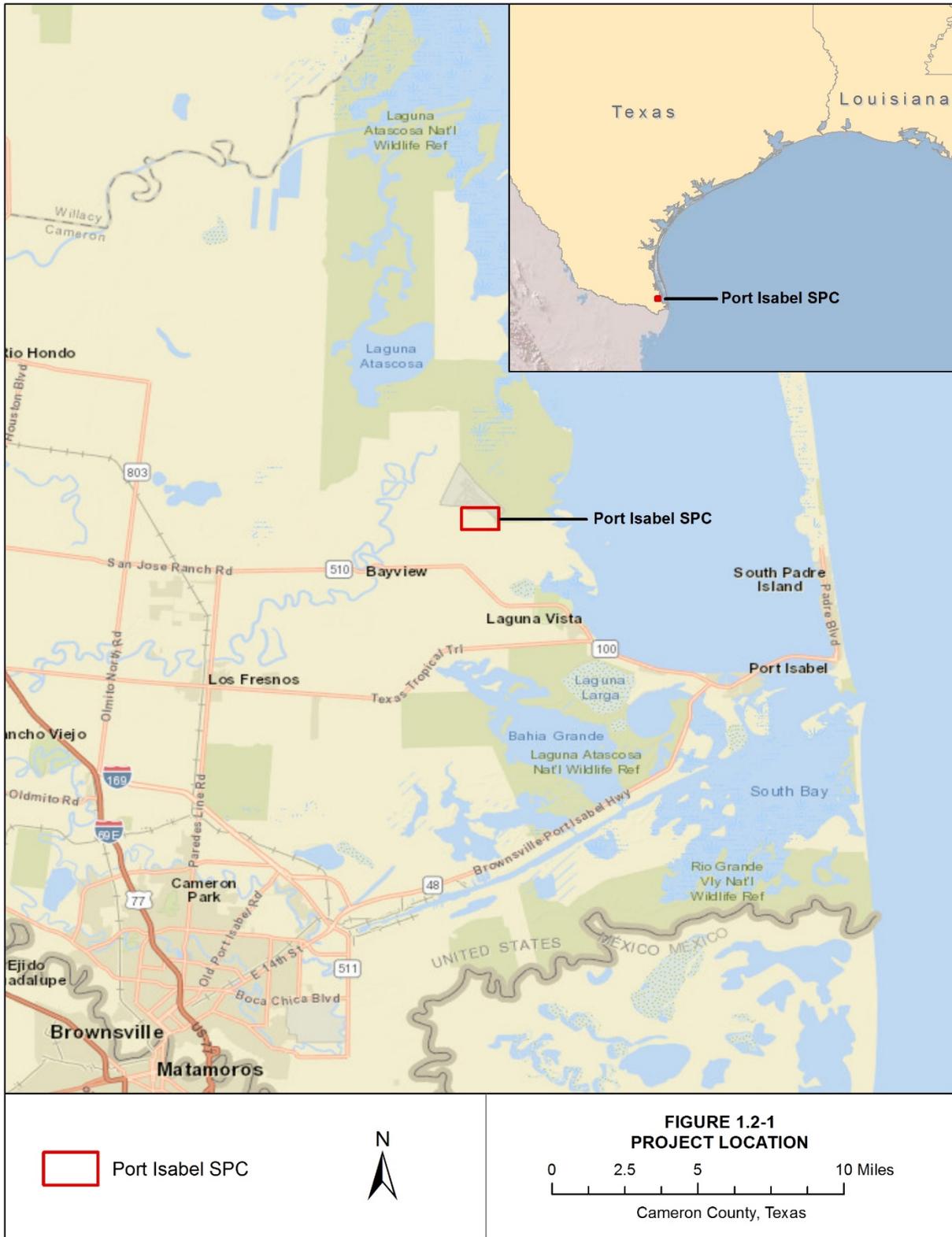


Figure 1.2-1. Regional Location of the Port Isabel SPC



Figure 1.2-2. Port Isabel SPC Project Area and Vicinity

1.3 SITE BACKGROUND

The Port Isabel SPC site is part of a former military base used first in the 1940s by the U.S. Army Air Corps as a gunnery training facility and range. The U.S. Navy and U.S. Air Force then used the facility in the 1950s for defense and training activities. In 1962, the site was closed as a military base due to realignment and base closures. The former INS and Border Patrol received a portion of the property for use as a Border Patrol Training Academy and Detention Center. The site's hangar and airfield runways were assigned to Cameron County. In 1962 and 1963, INS completed several major building renovations at the site. In 1977, the Training Academy was relocated to the Federal Law Enforcement Training Center in Glynco, Georgia and many buildings were abandoned. The INS Detention Center remained at the site. In 1981, several buildings and major utilities at the site underwent renovations, and the Border Patrol Detention Center expanded to the center of the eastern side of the parcel. In 1997, the U.S. Army Corps of Engineers (USACE) managed the construction of four detainee dormitories on site.

In 2007, the facility was again updated, and an administration building was added with processing areas and a connection to the medical center within the secure area. The administration building houses administration, courts, training, muster room/computer lab, an intel office, male and female processing areas and a walkway connection to the health unit within the secure area. In 2008, a 750,000-gallon water tower was constructed at the site and new water lines were installed. Since 2009, minor improvements have been made, including roof repair, replacement of heating, ventilation and air conditioning (HVAC) equipment, and updating security systems on an as-needed basis. In 2018, a facility-wide lighting and water fixture upgrade occurred to improve energy and water efficiency.

1.4 PURPOSE AND NEED

The Project's purpose is to further the ability of ICE to process, detain and deport unlawfully present aliens in accordance with federal law, through the improvement and modernization of the Port Isabel SPC. The need to which ICE is responding is to maintain compliance with the 2011 PBNDS and 2016 ACA standards.

1.4.1 Purpose of the Project

The purpose of the Proposed Action is to ensure that adequate facility and infrastructure resources are available for the efficient and lawful operation of the Port Isabel SPC. SPCs operate in accordance with PBNDS and ACA standards that detail the conditions of confinement, quality of life, access to a range of services including legal representation for detainees, and overall safe and secure operations.

Port Isabel SPC facilities and infrastructure are aging and will require improvements to serve the continuing demand for processing and detainee services at this location. The average daily population of detainees at the PIDC in fiscal year (FY) 2018 was 1,148. The rated bed capacity of the PIDC is 1,200. Therefore, the continued demands for processing and detainee services at the Port Isabel SPC are reasonably foreseeable. If the bed capacity at the PIDC is exceeded, detainees would be sent to other facilities within the San Antonio Field Office jurisdiction.

Additionally, the Port Isabel SPC has insufficient space to handle detained individuals requiring high security individual housing for security or safety reasons. The current Secure Housing Unit (SHU) is inadequately sized and degrading structurally. The SPC also has an outdated food preparation area and inadequate dining facility. Other infrastructural elements of the Port Isabel SPC facility, such as the roads and conduits traversing the facility grounds, fencing that borders the majority of the site, existing fire alarm system, and the wastewater treatment plant (WWTP) require reconstruction and rehabilitation.

Other abandoned structures such as housing formerly used by INS staff are significantly deteriorated and slated for demolition.

1.4.2 Need for the Project

The need for the Proposed Action is to maintain compliance with the 2011 PBNDS and 2016 ACA standards. Routine inspections and updates of all federal detention centers' facilities and operations are performed to ensure compliance with the 2011 PBNDS and 2016 ACA. The PBNDS set standards for addressing administration and management, security and control, healthcare, food service, staff-detainee communication, safety and sanitation, services and programs, workforce integrity and detainee discrimination. ACA standards require adherence to all federal, state and local fire and safety codes; emergency planning and preparation; and the provision of related training and materials for staff and inmates, among other requirements.

1.4.3 Existing Facilities

The Port Isabel SPC contains 51 buildings and 22 structures onsite. The facilities include buildings used for ICE operations, an aboveground water storage tank, pistol/rifle ranges, fuel storage tanks, temporary sheds, fencing, lighting, trailers, and a WWTP. Specific site areas where improvements, demolition, or new construction are proposed are discussed in greater detail in this section. These facilities and site areas include the SPC's SHU; proposed warehouse site; kitchen and dining building; WWTP and lift station; the site's system of conduits, fiber optics and fire alarms; fencing; roadways; firing ranges; Building 100; old staff housing; laundry; medical units; Building 55; and Building 77. These buildings and site areas are shown in Figure 1.4-1.

1.4.3.1 Secure Housing Unit (SHU)

The goal of the SHU at the Port Isabel SPC is to provide a safe and secure location to house special care detainees. Building 208, the SHU, and the attached Building 209, the SHU Recreation Area, are 2,280 gross square feet (gsf) total. This one-story building provides housing and a recreation area for administrative and court-ordered detainee segregation. It houses seven double-occupancy secure cells along an access hallway. There are two additional rooms: one used as a security staff office and one for indoor recreation. The existing SHU facility is approaching the end of its useful life. While the facility has had numerous floor repairs, the floor is prone to becoming uneven and is deteriorating in many locations requiring frequent repair or maintenance. The building is not energy efficient and does not have a control room.

1.4.3.2 Storage/Warehousing

Additional storage and warehouse space are needed at the SPC, in part due to updated emergency preparedness and files storage requirements, and to ensure the secure storage of these items.

Currently, there is no storage space inside the perimeter of the detention center area and the existing day warehouse is too small to meet the operational needs of the SPC. One consolidated on-site warehouse outside the perimeter of the detention center area is needed to receive and store deliveries.

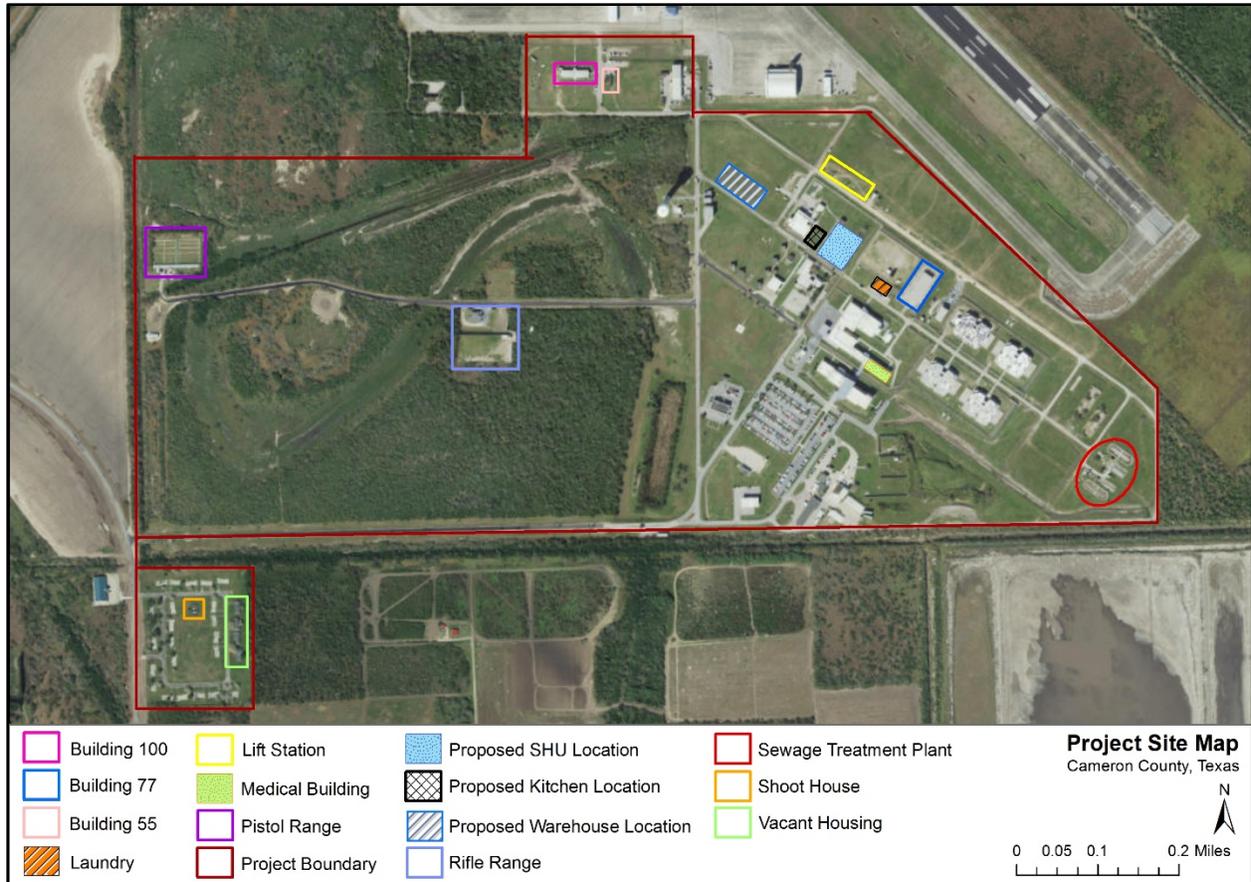


Figure 1.4-1. Port Isabel SPC Site Plan Showing Buildings for which Changes are Proposed

1.4.3.3 Kitchen and Dining Building

The SPC’s kitchen and dining hall building is located in the northeastern portion of the SPC site, between Memorial Avenue and Semper Fi Avenue. The single-story building was constructed in 1958 and is 11,215 sf. It contains a dining room, food preparation area, serving line, dishwashing area, and related storage spaces (see Figure 1.4-2). Approximately 2,700 meals per day are prepared at the SPC kitchen. Meals are prepared in the kitchen and then transported to the pods within the detention center dormitories, where detainees are housed.

Currently, the facility is used for food preparation and as a dining hall for employees. The facility is outdated, door frames are rusted beyond repair, interior finishes are not antimicrobial, and the facility is not energy efficient. Additionally, the lift station (which pumps sewage from the kitchen to the WWTP) near this building is failing due to long-term corrosion and related concrete failure.



Figure 1.4-2. Existing Dining Area

1.4.3.4 Wastewater Treatment Plant and Lift Station

The sanitary sewer system is a combination of gravity-fed and forced main piping that conveys all the sanitary sewage to the onsite WWTP via six onsite lift stations. The purpose of the WWTP at the Port Isabel SPC is to properly treat all on-site sewage in a cost-effective manner, and to comply with Texas Commission on Environmental Quality (TCEQ) regulations. The sewage treatment plant, located in the southeast corner of the SPC (see Figure 1.4-3), treats an average flow of approximately 115,000 gallons per day (gpd). It has a reported peak treatment design capacity of approximately 160,000 gpd.

Under the current system, wastewater is first directed to the headworks, where primary treatment of screening and grit removal takes place. From this unit, the wastewater is split into two secondary trains, consisting of clarifiers and oxidation ditches. Sludge from the clarifiers is pumped to sludge drying beds, where it is air-dried, then disposed of in a dumpster emptied by a contractor. Several buildings at the SPC have solids interceptors in the sewer pipes near the exit points from the buildings. Effluent from the secondary treatment flows through an eight-inch outfall pipe to a ditch on the southeast boundary of the site. The ditch ultimately flows to the Gulf of Mexico.



Figure 1.4-3. Wastewater Treatment Plant

During a 2012 assessment of the structure, only one of three headworks pumps was operational. Handrails at the WWTP are rusted and about to break off. The current mortar of the drying bed block walls is not anchoring the blocks and is allowing water to leak out. Dewatering sludge during wet weather often results in thick, heavy sludge that is difficult to handle. Existing gate valves are extremely difficult to open.

The main lift station, constructed in 2006, is located to the northeast of the kitchen and dining building. The walls of the lift station are deteriorating, and the pumps need to be replaced. Though repairs on components of the WWTP and lift station have occurred since 2012, the aging WWTP and its associated infrastructure continue to present numerous other issues necessitating comprehensive system-wide rehabilitation, repairs, and replacements.

1.4.3.5 Conduits/Fiber Optics/Fire Alarm System

Utility conduits traverse most of the eastern portion of the Port Isabel SPC. Portions of these conduits are eroded due to age and the corrosive nature of the saline groundwater that has intruded into the conduit system. Some existing portions of the network of copper wire cabling are damaged and unusable due to corrosion from water in the system as a result of flooding from heavy rains or storms that occur in the Cameron County area. Additionally, most facility buildings are not electrically tied into the Central Command Center. The fire safety system is outdated and in need of upgrades to ensure continued reliability.

1.4.3.6 Fencing

A 10-foot-tall, chain link perimeter fence topped with barbed wire surrounds the majority of the Port Isabel SPC. The detainee secure area fence has parallel, 12-foot-high chain link with razor wire mounted to the top and middle of the fence (see Figure 1.4-4). The purpose of the fencing is to provide perimeter security from unauthorized entrants as well as secondary containment of detainees. Portions of the fences, constructed in 1995, are in disrepair and have holes or other structural issues. The facility grounds contain approximately 15,000 linear feet of fencing.



Figure 1.4-4. Detainee Secure Area Fencing

1.4.3.7 Roadways

Existing roadways at the Port Isabel SPC are predominantly asphalt concrete paved surfaces with some concrete aprons and parking lots. The road widths vary from 12 to 26 feet. These roadways are vital to the transportation of detainees, guards, contract workers and federal personnel conducting operations. The roadways lead to numerous facilities/structures at the campus.

Many roadways at the Port Isabel SPC are cracked, broken and otherwise unusable or unsafe for vehicle travel into and around the SPC facility grounds. Currently, the roads suffer from minor edge breakage since there are no curbs and gutters. Degradation of the surface from normal usage has also occurred.

1.4.3.8 Firing Ranges

Pistol Range. The Pistol Range is located on the northwestern corner of the Port Isabel SPC (see Figure 1.4-5). The Pistol Range is currently used for small arms training and has been in use since at least 1968 (USACE, 2009a).

Rifle Range. The Rifle Range is located south of Ready Ammunition Road near the central portion of the western half of the Port Isabel SPC. The Rifle Range is a former clay skeet range and is currently used for small arms training (USACE, 2009a).



Figure 1.4-5. SPC Pistol Range

1.4.3.9 Building 100

Building 100 is located at the north-central part of the developed parcel, just south of Veterans Airport Drive. This 6,500-square foot (sf) building is currently vacant and confirmed to contain asbestos-containing materials (ACM). It was previously used as administrative space for guard contractors and as administrative and storage space for the ERO Special Response Team (SRT).

1.4.3.10 Old Staff Housing

Former INS staff housing is situated on the 12-acre parcel south of the main developed parcel (see Figure 1.4-6). There are currently four single-family housing units still standing in this area. These structures are surrounded by fields, roads and vacant slabs where other houses were located in the past. The units have been vacant for nearly 20 years and have decayed over time. ACM is present within the structures, which are considered a hazard. Defunct well pumping equipment is also present near the vacant houses.



Figure 1.4-6. Former INS Staff Housing

1.4.3.11 Laundry

The 2,000-sf SPC laundry building was constructed in 1958. It is located between the kitchen and dining building and the detainee dormitories. The exterior windows of this facility are in poor condition. Exterior doors are rusted, and the water heater is rusted and outdated. The building does not have a fire alarm system or emergency lighting and is not compliant with the Americans with Disabilities Act (ADA).

1.4.3.12 Medical Units

Currently, the majority of the detainee population's medical needs are provided within the Medical Building located near the northern border of the SPC, west of Executive Road. However, the dispensation of medication occurs in an on-site modular building, which is of insufficient size and inadequate design to efficiently meet all operational needs.

1.4.3.13 Building 55

Building 55 is approximately 1,300-sf and is currently used for storage of SRT equipment. This building is located next to Building 100. The building does not have a fire suppression system and does not adequately meet current mission needs.

1.4.3.14 Building 77

Building 77 is located adjacent to the laundry building and is currently used as a multipurpose building. The building is 10,580-sf. It contains a barbershop and a medical isolation area and can be used for indoor recreation. Building 77 is aging and ICE personnel will need to evaluate its functionality before determining whether it should be rehabilitated or demolished.

1.5 PUBLIC INVOLVEMENT

The NEPA process provides several opportunities for public involvement. During these times, interested and affected parties (stakeholders) may provide relevant information, express their concerns and provide their views about:

- The Project and its possible impacts on the natural and human environment;
- What should be addressed in the analysis and evaluation of the Proposed Action; and
- The adequacy of the NEPA analysis and documentation of potential impacts in the EA.

A letter regarding the purpose and need, Proposed Action, No Action Alternative and decision to be made was sent to interested parties on August 20, 2018. A total of four comments were received during this scoping period. Comments focused on support from local government, cultural resource studies, coastal consistency and USFWS review of effects of the Proposed Action on federally listed species in Cameron County, wetlands and other federal trust fish and wildlife resources. Copies of the letters sent and comments received are included in Appendix B.

A notice of availability (NOA) of the draft EA was also published on November 29, 2018 in the Valley Morning Star (Harlingen) and the San Antonio Express-News. The NOA was also emailed to the Texas General Land Office. The NOA provided instructions as to where the public and other interested parties could review the draft EA, and it provided instructions for submitting comments. The draft EA was made available on the DHS website, and in hard copy in the Laguna Vista Public Library and the Central Library in San Antonio, TX. Comments were accepted through January 30, 2019. No comments were received.

1.6 DECISION TO BE MADE

Based on the analysis and description of the proposed site improvements documented in this Final EA, the responsible official will determine whether the Proposed Action (implementation of all proposed improvements) should be implemented at this time; or if the No Action Alternative should be selected. The Proposed Action and No Action Alternatives are discussed in Chapter 2, Description of the Proposed Action and Alternatives. The No Action Alternative (not implementing the proposed site improvements) would not meet the purpose and need for the project.

NEPA and the Council of Environmental Quality (CEQ) regulations which guide the implementation of NEPA mandate that agencies consider environmental issues in their decision-making. The decision to be made would be based on the environmental and non-environmental issues evaluated in this document.

2.0 DESCRIPTION OF THE PROPOSED ACTION AND ALTERNATIVES

Per 40 Code of Federal Regulations (CFR) § 1502.14, the federal government must consider reasonable alternatives to a proposed action. Considering alternatives helps avoid unnecessary impacts and allows analysis of reasonable ways to achieve the stated purpose. To warrant detailed evaluation, an alternative must be reasonable. To be considered reasonable, an alternative must be ready for decision (any necessary preceding events have taken place), affordable, capable of implementation and must meet the purpose of and need for the action. Reasonable alternatives are practical or feasible from a common sense, technical, and economic standpoint and meet the Project's purpose and need.

2.1 PROPOSED ACTION (PREFERRED ALTERNATIVE)

The Project entails the implementation of a variety of improvements related to modernization of the existing Port Isabel Service Processing Center (SPC). Because the Project concerns improvements to a SPC, alternative Project locations were not considered because improvements would occur solely within an existing federal site. The alternatives described and evaluated in this Environmental Assessment (EA) include the Proposed Action and the No Action Alternative. It should be noted that implementation of the Proposed Action would not increase the detainee capacity of the SPC, but rather would improve existing conditions at the SPC.

The Proposed Action (or Preferred Alternative) would include a variety of infrastructural improvements at the Port Isabel SPC. Additional detail about the new/impacted facilities is included in the following subsections and is organized into the following four categories:

1. New construction and building improvements;
2. Infrastructure repair and rehabilitation;
3. Demolition; and
4. Potential future site improvements.

2.1.1 New Construction and Building Improvements

Construction proposed at the Port Isabel SPC includes the development of a new Secure Housing Unit (SHU), a new warehouse facility, and a kitchen/dining building expansion. Further details about each of these improvement projects are provided below.

2.1.1.1 Secure Housing Unit

The proposed new SHU would consist of an approximately 9,600-square foot (sf) building to house detainees. The SHU would be located to the southeast of the existing kitchen and dining building on a parcel of land that is currently occupied by three wooden shed structures, which would be moved or demolished prior to the start of construction (see Figure 2.1-1).

The SHU would include detention cells, a control room, library, detainee shower, detainee bathrooms, control room bathroom, DVR room, personnel sally ports, a mechanical room, an electrical room, a telecom closet, and an exterior exercise yard, along with required infrastructure, utilities and site work. No additional parking is required. Trenching would be required to connect telecommunications systems and bury the connections underground. The estimated length of trenching needed for this project is less than 50 feet. Required electrical, water, and sewer utilities are available due to the proximity of the site to the existing kitchen/dining building. Design and construction of this facility is anticipated to take approximately 24 months.



Figure 2.1-1. Shed Structures at Proposed SHU Site

2.1.1.2 Warehouse

The proposed new warehouse would consist of the design and construction of an approximately 16,800-sf building on a parcel of land south of the Cameron County airport and northwest of the existing kitchen/dining building. The proposed parcel is currently vacant and mowed.

The proposed warehouse would include janitor's closets, restrooms, a fire pump room, storage room, records storage, staging, clerical work area, secure storage, dock area, mechanical room, electrical room, and telecom closet, along with required infrastructure, utilities and site work. A parking area with 20 parking spaces would be required at the warehouse site.

The site would need to be linked to the SPC electrical, communications, water and sewer systems. A new natural gas-fueled emergency generator would be installed to the west of the proposed warehouse, as would a new, pad-mounted transformer. Trenching would occur in several locations around the proposed building to place conduits for electrical and telecommunications wires. A new 6-inch gravity flow sanitary sewer line would be tied into an existing manhole to the east of the proposed building. Light poles would be installed in four locations, two to the east and two to the west of the proposed building.

2.1.1.3 Kitchen and Dining Hall Building

Under the Preferred Alternative, the SPC kitchen/dining building would be renovated and expanded to meet current building codes, to create a properly sized kitchen work space and an appropriately sized dining area for employees, and to enable ICE to continue to provide a diverse set of nutritional meals to

detainees, meeting American Correctional Association (ACA) standards. Meals would continue to be prepared in the kitchen and transported to detainees in the detention center dormitory pods.

Construction related to the kitchen/dining building expansion would occur immediately adjacent and connected to the southeastern side of the existing facility, towards the existing SHU (see Figure 2.1-2). The proposed expansion would be approximately 5,000-sf total and would be constructed on top of new slabs. The parcel on which construction would occur is currently unpaved.



Figure 2.1-2. Kitchen and Dining Building Expansion Site

The existing dining space would be expanded by approximately 450-sf by assimilating an existing adjacent delivery dock into the interior space. One interior partition wall would be removed within the current dining room to allow for more seats. A new entry would be installed on the existing front wall of the building, as would a new concrete ramp, landing and aluminum canopy structure. A concrete loading dock and ramp would be added at the new delivery doorway at the northeast corner of the dining space.

The expanded building would house cooking components, administrative areas, a locker/breakroom, janitor's closets, restrooms, refrigerated storage, dry food storage/pantry, a carry out area, a dishwashing area, a can wash area, a receiving staging area, an outdoor platform receiving area, a mechanical room, an electrical room, a telecom closet and other required infrastructure and utilities. LED lighting and water- and energy-efficient appliances would be installed in the expanded/renovated facility, as would a new high-efficiency heating, ventilation and air conditioning (HVAC) system. New windows and doors with enhanced security features would be installed.

2.1.2 Infrastructure Repair and Rehabilitation

Under the Preferred Alternative, a variety of infrastructure repairs and improvements would occur to ensure continued compliance with current ACA and Performance-Based National Detention Standards (PBNDS) and to ensure that the SPC is operating at optimum levels. These activities would include improvements to the wastewater treatment plant (WWTP); to the electrical and communication conduits, fiber optics system and fire alarm system; to facility fencing and roadways; and to the SPC firing ranges.

2.1.2.1 Wastewater Treatment Plant and Lift Station

Under the Preferred Alternative, improvements would be made to the WWTP at the Port Isabel SPC. The current equipment used by the WWTP is serviceable but in need of a variety of replacements and renovations to maintain function and avoid unexpected breakdowns. The proposed improvements would result in more efficient operation and ensure that the facility will operate within PBNDS and ACA standards.

Sewage sludge is continuously produced at the WWTP and must be dewatered prior to disposal off site. To facilitate sludge disposal during wet weather, the following improvements would occur:

- Add necessary waste and clear water piping, hoses, valves, etc.;
- Add a polymer injection and mixing system to properly flocculate sludge;
- Furnish electrical hookup to the polymer system; and
- Seal side walls of existing drying beds.

Off-site sludge transport by roll-off dumpster trucks occurs regularly and requires a heavy-duty driveway. To provide the necessary driveway, the existing driveway would be removed and replaced with a proper sub-base, base, and steel-reinforced concrete slab. A slab for sludge boxes would be installed.

The deteriorated walkway around the chlorine/weir maze would be removed and replaced with a steel-reinforced walkway all around. This new walkway would be connected to the existing part of the walkway that is still in good condition.

The WWTP lift, transfer and diverter pumps/motors, and oxidation ditch rotor motors would be replaced. Clarifiers would be rebuilt to include rotating arms, motors, and gearboxes. Related controls and flow meters would be replaced. The drain valve to the north side of the chlorine basin would be replaced, as would all above ground valves, air releases, pipe fittings and supports. All below ground valves and valve boxes would be replaced. Damaged handrails and outdated lighting would be replaced throughout the WWTP.

The lift station near the kitchen and dining building would also be replaced under the Preferred Alternative. An entirely new structure, plumbing, submersible pumps, and a new connection to the existing sewer mains would be constructed. Sequencing of the work associated with these improvements would occur so that plant operations are not disrupted. The existing lift station would remain on line until the new lift station is operational and tied into the main sewer lines. Construction would begin in 2019 and is estimated to be completed in 2021.

2.1.2.2 Conduits/Fiber Optics/Fire Alarm System

Existing conduits on site would be repaired as issues are encountered. Any new conduits to be installed under the Preferred Alternative would be placed from existing or new buildings to existing roads.

The Preferred Alternative also includes the replacement and upgrade of network cabling and phone line cabling at the facility, to meet agency standards. SPC fire alarm systems would be updated in various buildings onsite as needed to meet current building codes. At least 2,000 feet of waterproof fiber optic cable would be installed in existing conduits throughout the facility grounds where needed to enable or improve telecommunications at the site. Trenching and boring underneath road crossings would only occur as necessary to repair existing conduits if a problem is encountered.

2.1.2.3 Fencing

Under the Preferred Alternative, portions of fencing would be replaced at the SPC. A Facility Fence Inspection was conducted by Ahtna Support and Training Services at the Port Isabel SPC on May 31, 2018. The inspection noted areas of the fence line that need to be repaired or replaced. Other areas of the fence are rusted or have some signs of rust and their structural integrity would benefit from repair.

Existing fencing is described in greater detail in Section 1.3.3.8. The interior, secure line fencing would be replaced in kind with the existing privacy screening and barbed wire configuration. The current footprint of the perimeter fence would not change. All interior, secure line fencing would be installed to a height of 12 feet. All interior poles would be 10 feet in height aboveground with 3-4 feet buried underground. All fencing, wire, posts and ties would consist of a corrosion resistant material/coating to ensure long-term protection from the high salt environment of the site area.

Construction and repair of fencing is anticipated to take approximately 30 days. All old fence material would be removed from the site.

2.1.2.4 Roadways

Under the Preferred Alternative, approximately 25,000 square yards of roadway on five road sections at the Port Isabel SPC would be repaired. The five roadways to which improvements would be made include the following:

- Main Access Road: 2,659 feet long. This road spans the majority of the western side of the developed portion of the SPC.
- Delivery Loop Road: 1,722 feet long. This road includes portions of Memorial Avenue, Semper Fi Avenue and a small local roadway to the west of the kitchen/dining building.
- Sallyport Entrance Road: 190 feet long. This road is located directly to the south of the kitchen/dining building.
- Perimeter Access Road: 3,408 feet long. This road forms the southern boundary of the developed portion of the SPC and borders the WWTP and the automotive garage to the south.
- Fire Department Access Road: 1,187 feet long. This road forms the southern and eastern boundary of the SPC armory and the western boundary of the automotive garage.

All repairs proposed under the Preferred Alternative would be made within the footprint of the existing roads at the SPC. To conduct necessary repairs, existing roads and underlying material would be removed down to the water level. Erosion control matting would be added and the road surface would be replaced.

2.1.2.5 Firing Ranges

Under the Preferred Alternative, berms at the SPC firing ranges would be raised to a higher elevation. New electronic equipment and shade structures may be installed at the ranges (see Figure 2.1-3).

There has not been recorded cleaning of the berms since their construction. Lead accumulation in the berms (from weaponry firing directly towards the berms) is a concern due to the potential for lead to leach into the groundwater. Preliminary soil testing has occurred, and additional testing of the soils of the berm and surrounding area would occur prior to any work being done at this part of the site. Testing of the greater surrounding area would also occur to determine the base lead levels of the area. The goal of the additional testing would be to determine whether lead is migrating off-site and whether lead is present in the groundwater below the berms.

Lead levels in the berms are consistent with a well-used firing range (MT2, 2018). Plans will be developed to remove the lead from the berm soil and then put the cleaned soil back in place to rebuild the berm, or to immobilize the lead in the soil to prevent migration. Berm locations with high lead levels would be excavated, the lead would be removed from the soil using a soil washing process and the remediated soil would be placed back at the berm locations.

If migration of lead off-site is identified during additional testing, a workplan to remediate the lead contamination would be developed. Remediation would likely be carried out in conjunction with removing the lead from the berms.



Figure 2.1-3. Shade Structure at Rifle Range

The berms would be rebuilt to their original design height in most locations to address erosion that has occurred over time. Additionally, some portions of the berms (especially the side berms) would be raised above their original height to correct previously identified range safety deficiencies. The goal of berm rebuilding would be to raise berms in place without any horizontal expansion. However, it is possible that minor horizontal expansion would be required to induce an acceptable slope of the berm. Erosion control measures would be required during testing and rebuilding to prevent migration of any soils off-site.

2.1.3 Demolition

Demolition of six structures would occur at the SPC as part of the Preferred Alternative. Structures to be demolished include Building 100, four single-family houses on the 12-acre parcel of land south of the main developed area previously used for Immigration and Naturalization Service (INS) staff housing (see Figure 1.4-6), and the former shoot house located near the vacant housing units. The buildings constitute a safety, health, and environmental hazard. Most of these buildings are located outside of the Port Isabel SPC secure area and are accessible to the public.

2.1.3.1 Building 100

Building 100 would be completely removed down to slabs, capped and sealed as appropriate, and all utility lines connected to the building would be shut off from main supply lines. Asbestos-containing materials (ACM) are confirmed at the site and will be properly handled by a licensed contractor.

2.1.3.2 Old Staff Housing and Shoot House

The four single-family housing units and the shoot house south of the main developed area would be completely demolished (see Figure 2.1-4). Existing slabs, roadways, curbs, utility poles and chain link fencing would remain in place. Defunct well pumping equipment located near the houses would also be demolished. ACMs are also anticipated to be present at this site and would be properly handled by a licensed contractor in accordance with United States Environmental Protection Agency (USEPA) regulations.



Figure 2.1-4. Shoot House Adjacent to Old Staff Housing

2.1.4 Potential Future Site Improvements

Other construction, demolition, or renovation activities that could potentially occur under the Preferred Alternative include:

- Full renovation of the existing laundry facility, constructed in 1958. Replacement of the building's water heater and installation of emergency lighting are also needed.
- Replacement of the medicine dispensing modular building with a new, modular building with a larger square footage designed to more efficiently meet operational needs.
- Renovation of areas within the Medical Building.

- Full interior renovation of Building 55, currently used for the storage of special operations equipment. This building is outdated; rehabilitation would allow for proper long-term maintenance and use of the building.
- Full interior rehabilitation or demolition of Building 77, currently used as a multipurpose building. Future study will determine the most efficient option for the future of this building.

Specific plans have not yet been established for these projects; rather, they represent future needs at the Port Isabel SPC and will be fulfilled upon receipt of funding and the development of more precise details related to the required renovations.

2.2 NO ACTION ALTERNATIVE

The No Action Alternative is included and analyzed to provide a baseline for comparison with impacts from the Project and also to satisfy federal requirements for analyzing “no action” under the National Environmental Policy Act (NEPA) of 1969 (40 CFR § 1502.14(d)).

The No Action Alternative assumes that no construction, improvement of infrastructure, or demolition would occur at the Port Isabel SPC. Minor repairs would occur as needed and maintenance and operation of the existing facilities would continue as described in Chapter 1. This alternative would not meet the purpose and need of the Project (as identified in Chapter 1 of this Final EA) as the construction, modernization, rehabilitation and demolition of existing facilities needed to ensure facility infrastructure upkeep and the continued use of the Port Isabel SPC would not occur. The No Action Alternative would make it difficult for the SPC to efficiently meet all adequate conditions for confinement, quality of life, access to a range of services for detainees, and overall safe and secure operations detailed in the current PBNDS and ACA standards.

2.3 ALTERNATIVES CONSIDERED AND DISMISSED FROM DETAILED ANALYSIS

One alternative to the Proposed Action that was considered and dismissed from detailed analysis would be to relocate part of the services provided at the Port Isabel SPC to multiple existing facilities in the ICE system. However, this is not considered to be feasible due to size constraints and the distance at which these services would then be located from the Port Isabel SPC.

Another alternative that was considered and dismissed from detailed analysis is a “partial build” alternative. Such an alternative would analyze certain project activities as proposed under the Preferred Alternative but would leave out those that would likely occur later in time or are able to be covered under a Categorical Exclusion (or CATEX). The partial build alternative was determined to be inappropriate under NEPA regulations (i.e., segmentation). Segmentation can occur when an action is broken down into small parts in order to avoid the appearance of significance for the total action. Although the various project activities proposed under the Preferred Alternative may be implemented at separate times over the next several years based on the availability of funding, they are reasonably foreseeable improvements that would occur at the same site and, therefore, are analyzed together under one alternative to avoid segmentation.

3.0 AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

This chapter describes the current environment for resource areas that may be affected by the Proposed Action (Preferred Alternative) and the No Action Alternative, and the potential environmental consequences associated with these alternatives. Resource areas analyzed include: soil resources; water resources; biological resources; hazardous waste and materials; utilities and infrastructure; cultural and historic resources; air quality; climate change; noise; human health and safety; socioeconomics; and environmental justice.

Affected Environment

The affected environment summarizes the current physical, biological, social, and economic environments of the area within and surrounding the Port Isabel Service Processing Center (SPC). For each resource area, the bounds of the area for analysis that could be impacted by the Proposed Action and No Action alternatives are defined, and the elements or components of the resource area that may be potentially affected are described.

For some resource areas, the geographic area for analysis of the affected environment extends beyond the boundaries of the Port Isabel SPC to encompass the City of Los Fresnos or Cameron County. However, for many of the resource areas potentially affected by the alternatives, the area of analysis is located within the footprint of the project site, where the project elements (e.g., proposed warehouse, existing buildings) are located.

Environmental Consequences

The analysis of environmental consequences for each resource area begins by explaining the methodology used to characterize potential impacts, including any assumptions made. The impacts analysis considers how the condition of a resource area would change as a result of implementing each of the alternatives and describes the types of impacts that would occur (direct, indirect, beneficial, adverse). The significance of impacts is assessed using four parameters: magnitude, duration, extent, and likelihood of occurrence. The impact types and significance criteria are described below. The terms “impacts” and “effects” are used interchangeably in this chapter.

Types of Impacts

According to the Council on Environmental Quality’s (CEQ) National Environmental Policy Act (NEPA) Regulations at 40 Code of Federal Regulations (CFR) § 1500-1508, direct and indirect effects are defined as:

Direct effects: Effects that are caused by the action and occur at the same time and place (§ 1508.8(a)).

Indirect effects: Effects that are caused by the action and are later in time or farther removed in distance but are still reasonably foreseeable. Indirect effects also include “induced changes” in the human and natural environments (§ 1508.8(b)).

In other words, direct impacts are those that are caused directly by an alternative, such as soil erosion caused by excavation to construct a new building under the Preferred Alternative. Indirect impacts are those follow-on effects induced by the initial impact. An example of an indirect impact is an adverse impact on water quality, such as stream sedimentation, caused by soil erosion from excavation to construct a new building.

Identified impacts may be either adverse or beneficial. The CEQ Guidelines that govern NEPA implementation describe the need for identifying and differentiating between adverse and beneficial impacts, but do not offer a definition of these terms. For the Port Isabel SPC Environmental Assessment (EA), the following definitions have been used by NEPA analysts:

Adverse impacts: Those impacts which, in the judgment of an expert resource area analyst, are regarded as having a negative and harmful effect on the analyzed resource area. An adverse impact causes a change that moves the resource area away from a desired condition or detracts from its appearance or condition.

Beneficial impacts: Those impacts which, in the judgment of an expert resource area analyst, are regarded as having a positive and supportive effect on the analyzed resource area. A beneficial impact constitutes a positive change in the condition or appearance of the resource area or a change that moves the resource area toward a desired condition.

The adverse impact may be to the natural environment (e.g., decrease in vegetated area) and the beneficial impact may be to the human environment (e.g., improved quality of life as a result of improvements to detainee living space). Or the opposite may be true: the adverse impact may be to the human environment and the beneficial impact may be to the natural environment. Or, both adverse and beneficial impacts may occur to the natural and human environmental for a single resource area.

Significance Criteria

Documentation for projects similar to the Port Isabel SPC was reviewed to ascertain the activities associated with modernization and rehabilitation that could potentially cause environmental impacts, and the types of impacts they could cause. This research was supplemented by professional judgment concerning impacts of typical concern for projects involving site-wide improvements.

Criteria were defined as a means of measuring the size of the impact and its significance. A structured framework is required to support conclusions concerning the significance of effects and to systematically integrate individual resource area assessments. For example, construction projects generally require some grading and soil disturbance. These activities have an impact on the soil, and they could also affect air quality (by creating fugitive dust), water quality (through erosion of the bare soil and sediment deposition in the surface water), and terrestrial resources (through the removal of vegetation and wildlife habitat). Using the same criteria to describe the size and significance of impacts for each of these resource areas allows for comparison of the impacts between resource areas and determination of the significance.

The significance of impacts was determined systematically by assessing four parameters of environmental impact: magnitude (how much), duration (how long), extent (sphere of influence) and likelihood of occurrence (probability). Each parameter was divided into the following levels:

Magnitude:

- Major – Substantial impact or change in a resource area that is easily defined, noticeable and measurable or exceeds a standard.
- Moderate – Noticeable change in a resource area occurs, but the integrity of the resource area remains intact.
- Minor – Change in a resource area occurs, but no substantial resource area impact results.

- Negligible – The impact is at the lowest levels of detection – barely measurable but with perceptible consequences.
- None – The impact is below the threshold of detection with no perceptible consequences.

Duration:

- Permanent – Impact would last indefinitely.
- Long-term – Impact would likely last the lifetime of the Project, or for as long as the Port Isabel SPC is in operation.
- Medium-term – Impact would extend past the transition phase, or construction phase, and into the operations phase; eventually merging into the long-term.
- Short-term – Impact would last the duration of the construction phase.
- Temporary – Impact would be continuous and last for a portion of the construction phase.
- Intermittent – Impact would not be constant or continuous but rather recurring or periodic. Intermittent impacts could occur temporarily or in the short, medium, or long term.

Extent:

- Large – Impacts would affect the resource area on a county, regional or state level, extending well past the immediate Project area.
- Medium or localized – Impacts would affect the resource area only in the Project area or its immediate surroundings, and would not extend into the county, region or state. For example, noise impacts from building construction activities are usually localized as they can be heard from approximately 1,000 feet but not farther away.
- Small or limited – Impacts would affect the resource area over a portion of the Project area.

Likelihood:

- High – The impact is more likely to occur than not, i.e., approximately 50 percent likelihood or higher.
- Medium – The impact has some chance of occurring, but probably below 50 percent likelihood.
- Low – The impact has a non-zero but very small likelihood of occurrence.
- None – The impact has zero probability of occurring.

3.1 SOIL RESOURCES

Soil is a collective term for the inorganic and organic substrate covering bedrock in which vegetation grows and a multitude of organisms reside. Soil resources provide a foundation for both plant and animal communities by establishing a substrate for plant growth and vegetative cover for animal habitat and feeding. Soil properties at any given site are determined by five factors: 1) physical and mineralogical composition of the parent material; 2) climate under which the soil material accumulated and has existed since accumulation; 3) plant and animal life atop and within the soil; 4) topography, or the “lay of the land”; and 5) length of time that these forces of soil formation have acted on the parent material.

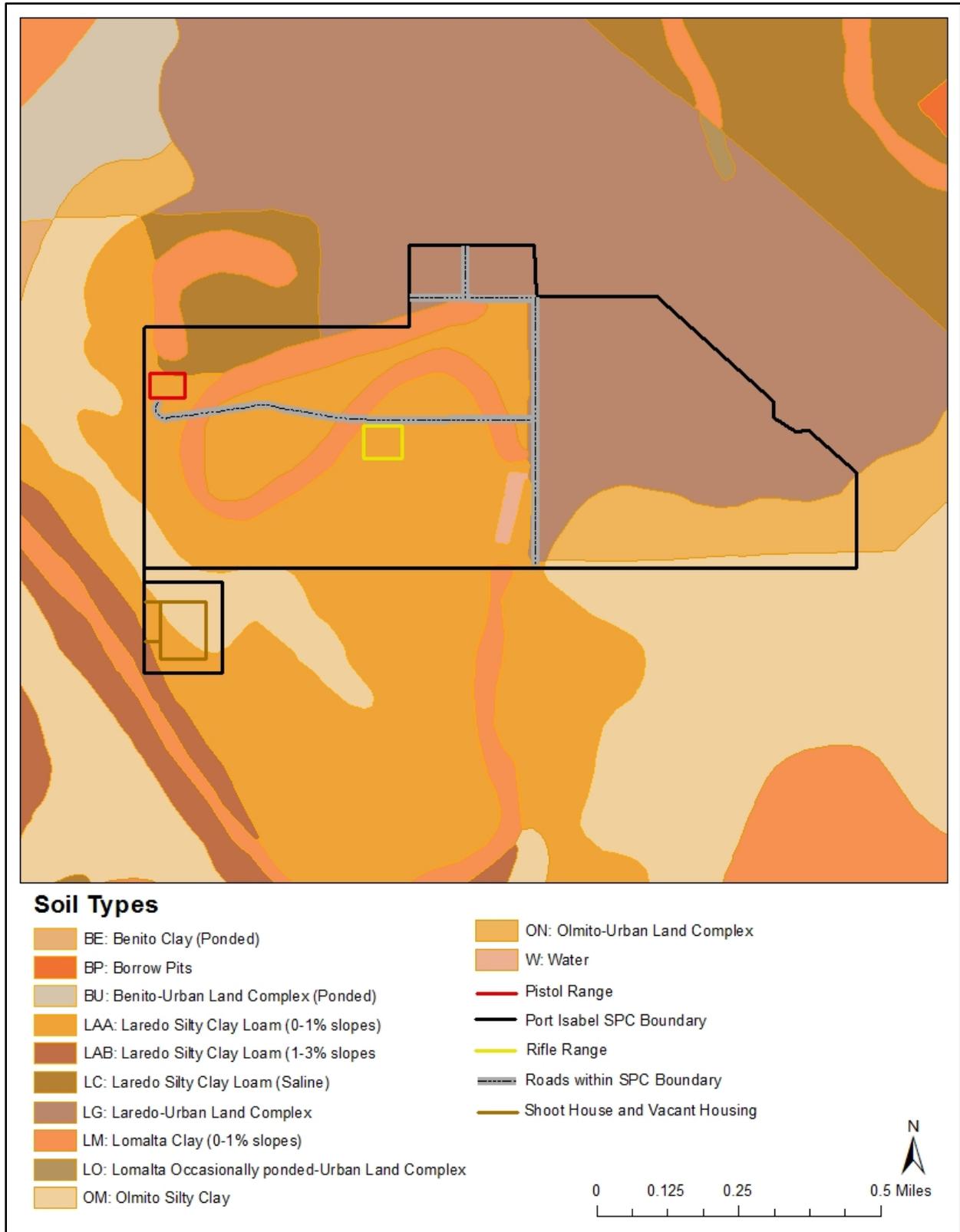
3.1.1 Affected Environment

Soils are surveyed nationwide by county. Based on the Soil Survey of Cameron County, Texas, (Beck and Hendrickson, 1941) there are seven soil types on the Port Isabel SPC property (see Figure 3.1-1):

- Laredo silty clay loam (LAA): zero to one percent (0–1 percent) slopes, well-drained, moderately high to high permeability;
- Laredo silty clay loam (LAB): one to three percent (1–3 percent) slopes, well-drained, moderately high to high permeability;
- Laredo silty clay loam, saline (LC): moderately well-drained soil, moderately high to high permeability;
- Laredo-Urban land complex (LG): nearly level, well-drained, moderately high to high permeability;
- Lomalta clay (LM): nearly level, poorly drained, very low to moderately low permeability;
- Olmito silty clay (OM): nearly level, moderately well-drained, moderately low to moderately high permeability; and
- Olmito-Urban land complex (ON): nearly level, moderately well-drained, moderately low to moderately high permeability.

The existing buildings and structures on the SPC site are located on the LG soil type. The Proposed Action is limited to the eastern half of the property with one exception: demolition of four abandoned houses and the shoot house on 12 acres south of the main campus on OM and LAB soils. The OM and LAB soils have been disturbed during previous construction activities.

The Port Isabel SPC contains a pistol range and a rifle range, both with built up earthen berms that are exposed to the environment. The ranges are composed of mostly flat grassy areas with several concrete walkways and firing lines. The target backstop berm at the pistol range is approximately 282 feet long and 30 feet wide at the base, with a height of approximately 15 feet. Surface water runoff has been described in the past to drain to the east via an unlined ditch located at the toe of the berm, and past descriptions state that an earthen drainage ditch runs adjacent to the western edge of the pistol range, discharging into an earthen drainage ditch running to the northeast. However, current conditions do not reflect past drainage descriptions. Currently, surface water is described by onsite users as accumulating at the range and infiltrating into the ground (range surface) over time. Drainage features were not apparent during a site visit. The target backstop berm of the rifle range is approximately 165 feet long and 30 feet wide at the base, with a height of approximately 16 feet. Surface water runoff appears to stand/infiltrate on low areas of the range. Runoff from these berms is not controlled (FOH, 2017; USACE, 2002).



Source: NRCS, 2018a.

Figure 3.1-1. Soil Types at Port Isabel SPC

3.1.2 Environmental Consequences

The area of analysis for soil resources is defined as the Port Isabel SPC property, since no soil impacting project activities would occur outside of the SPC. The threshold for significance is whether the Proposed Action would degrade a large extent of previously undisturbed soils. Soils can be altered through three processes: 1) physical degradation, such as wind and water erosion or compaction; 2) chemical degradation such as toxification, salinization or acidification; and 3) biological degradation, which includes declines in organic matter, carbon, and the activity and diversity of soil fauna. While there are few applicable regulations regarding soils, proper conservation principles can reduce erosion and reduce physical, chemical, and biological degradation. An adverse impact on soils would occur if soils were physically degraded, chemically degraded, or biologically degraded at the SPC as a result of project activities.

3.1.2.1 Proposed Action (Preferred Alternative)

As shown on Figure 3.1-1, the soil resources on the developed portion of the Port Isabel SPC property are silty clay loams, clay, and urban land complexes. No proposed activities would take place in areas characterized as hydric soils. Sites where new construction is proposed do not include soils designated as Prime Farmland (NRCS, 2018a).

A total of approximately three acres of soils would be impacted in the area of analysis during construction. The use of heavy equipment during demolition of facilities and for site preparation for construction of buildings, walkways, parking areas and other infrastructure under the Preferred Alternative would require trenching, boring and grading; however, these actions would occur in areas where soils have been predominantly previously disturbed. If any natural soil horizons exist, they would likely be lost during the earthwork. Heavy equipment may compact or loosen and destroy the structure and function of organic and mineral soils over the long term, reducing soil moisture and most likely resulting in increased runoff and erosion. Soil erosion from use of heavy equipment could occur as a result of ground disturbance leading to detachment of soils and transport of freshly disturbed surfaces in wind and stormwater runoff. Soil productivity, which is the capacity of the soil to produce vegetative biomass, would decrease given the footprint of proposed new buildings, parking areas, and other paved surfaces that would be constructed. Severe soil compaction could inhibit revegetation in denuded areas that are not covered by man-made materials.

Soils underlying site areas where renovations and improvements would take place, including the wastewater treatment plant (WWTP) and lift station, existing conduits, roadways and fencing, existing system of fiber optics and fire alarms, existing laundry facility, Building 55 and Building 77, have been previously disturbed during construction of facilities and other site improvements on impervious surfaces. Though trenching and boring may occur as needed (i.e., underneath road crossings, below the existing lift station) in conjunction with Preferred Alternative activities, the footprint of these project-specific actions is anticipated to remain within the previously disturbed areas.

Where demolition is proposed to occur (old staff housing, Building 100, and the former shoot house), existing slabs, roadways, curbs, utility poles, and chain link fencing would remain in place, minimizing potential effects to soils in these areas.

Permanent adverse impacts would be associated with loss of soil structure and function as a result of covering soils with concrete, asphalt and other impermeable surfaces at proposed new facilities. Impervious surfaces would be added at the site of the proposed Secure Housing Unit (SHU) (though much

of this area is previously disturbed and covered by sheds and impervious surface), proposed warehouse, and proposed kitchen/dining building expansion area.

Overall, impacts on soils from project activities under the Preferred Alternative would be adverse, short- and long-term to permanent, minor to moderate, of medium extent (localized), with a high likelihood of occurrence where soils are substantially altered or covered by impervious surfaces. Adverse effects are anticipated to occur only where new construction is proposed on non-impervious surfaces.

Best Management Practices (BMPs) could be implemented during earthwork activities to prevent or reduce soil erosion and other long-term adverse impacts on soils. While clearing vegetation would increase the potential for erosion and sedimentation in the short term, soil erosion could be minimized by implementing industry standard BMPs during construction activities. BMPs could include installing silt fencing and sediment traps; applying water to soil to reduce dust; and reestablishing vegetation to minimize erosion and sedimentation. Areas around the buildings, parking lots and other infrastructure where soils remain exposed after construction is completed could be revegetated with grass or regionally appropriate native plant species. In the long term, the revegetated plants' roots would minimize erosion and sedimentation by re-stabilizing the topsoil. BMPs could also include siting construction staging areas in previously disturbed landscapes such as parking lots. However, because proposed vegetation clearing would only occur on landscaped, grassy areas that have been actively maintained (e.g., mowed) for many years and because soils in the area of analysis are already disturbed, any impacts to soils associated with the Proposed Action would be minor regardless of whether industry standard BMPs are implemented.

Soil Testing at Firing Ranges

Since the berms at the SPC's firing ranges were constructed, there is no record of berm cleaning having occurred. The SPC's ranges are active ranges and there is no specific statutory or regulatory framework requiring that lead or other heavy metals associated with active firing ranges be tested, remediated, or removed. However, the United States Environmental Protection Agency (USEPA) has promulgated BMPs for outdoor firing ranges. The BMPs state that range managers should identify the extent of lead accumulation and potential pathways of offsite migration of lead with the intent of implementing management practices to prevent lead migration off-site.

As discussed in Section 2.1.2.5, lead accumulation in the berms is a concern due to the potential for lead to leach into the groundwater or to migrate offsite if sediment from the firing ranges runs off into the surrounding landscape. To identify BMPs for the SPC's ranges, preliminary testing of the soils of the berms and surrounding area has occurred and additional testing for lead concentrations and leaching potential is anticipated to occur. Soil lead levels in the berms and range area are consistent with a well-used firing range. Based on the results of the preliminary and future additional testing, management plans will be developed and implemented in accordance with BMPs for outdoor firing ranges as promulgated by the USEPA. If additional testing shows lead levels in the firing range areas show the potential for leaching, and pathways for water contamination are identified, plans would be made to remove lead from the berm soil and range soils, or to immobilize the lead in the soil. Remediated soils would be used to rebuild the berms to their original design height in most locations to address erosion that has occurred over time. Though the goal of berm rebuilding would be to raise berms in place without any horizontal expansion, minor horizontal expansion may be required to induce an acceptable slope of the berm. Erosion control measures would be required during and after berm rebuilding activities to prevent migration of soils off-site.

The content of lead in soils at the SPC firing ranges is discussed in greater detail in Section 3.4, Hazardous Materials and Waste. Impacts to soils as a result of berm testing and rebuilding would be beneficial, short- and long-term, and limited with a high likelihood of occurring.

3.1.2.2 No Action Alternative

Under the No Action Alternative, construction, renovation, and demolition activities would not take place, precluding any soil-disturbing activities. However, if lead is not removed from, or immobilized in, the soils at the firing ranges, it could potentially leach into and contaminate the underlying soil. If this occurred, the impacts would be adverse, moderate, and long-term with a small extent and high likelihood.

3.2 WATER RESOURCES

This section describes the environmental setting for water resources in the project area and includes an evaluation of the potential environmental consequences of the alternatives on water resources.

3.2.1 Affected Environment

Water resources comprise groundwater, both quality and usage; surface water, both quality and usage; wetlands; and floodplains. The environmental setting for each of these water resource categories at the Port Isabel SPC is described in this section.

3.2.1.1 Groundwater

The area of analysis for groundwater includes the nearest major aquifer, the water table below the project site, and the source of water supply for the Project. The Gulf Coast aquifer is the nearest major aquifer, located approximately 13 miles to the southwest of the Port Isabel SPC. No major aquifer underlies the project site. Groundwater monitoring wells sampled at the pistol and rifle ranges in 2002 (USACE, 2002) found the range of groundwater depth to be 4.84 feet below ground surface (bgs) to 7.35 feet bgs at the pistol range, and 3.62 feet bgs to 8.63 feet bgs at the rifle range. No other measurements of groundwater depth are known to be available for the SPC, and as the SPC site is relatively flat, it is reasonable to assume similar groundwater depths for the remainder of the site.

The 2002 sample data also showed the groundwater to be very saline and is considered a Class 3 groundwater resource (i.e., unsuitable for drinking water) by the Texas Risk Reduction Program. The brackish quality of the groundwater is most likely due to its proximity to seawater in Laguna Madre.

Groundwater Quality

Several federal statutes have been enacted that are protective of groundwater quality, including the:

- Safe Drinking Water Act (SDWA);
- Federal Insecticide, Fungicide and Rodenticide Act (FIFRA);
- Toxic Substances Control Act (TSCA);
- Resource Conservation and Recovery Act (RCRA); and
- Comprehensive Environmental Response, Compensation and Liability Act or “Superfund Act” (CERCLA).

As discussed in Chapter Two, lead from fired ammunition has accumulated in the pistol and rifle range berms and is a concern due to the potential for dissolved lead to leach into the groundwater over an extended time. Groundwater at the ranges was tested in 2002 (USACE, 2002) for the presence of lead contamination. Samples were evaluated from three groundwater monitoring wells at each of the ranges, and lead was not detected in these samples. Because of the length of time that has lapsed since the 2002 testing, and in consideration of the use of the ranges since that time, current lead levels in the groundwater may differ from the previous sample results. Preliminary testing of the soils of the firing range berms and surrounding area has occurred, and additional testing for lead concentrations is anticipated to occur. Soil lead levels in the berms and range area are consistent with a well-used firing range. Plans will be developed to manage the pistol and firing ranges in accordance with USEPA guidance, BMPs for Firing Ranges (USEPA-902-B-01-001, Revised June 2005) and communication from USEPA’s Office of Resource Conservation and Recovery (Schuster, 2018). If additional soil samples subject to Toxicity Characteristic Leaching Procedure (TCLP) result in the indication of a high likelihood of lead

leaching into groundwater at the ranges, plans will be developed to further test the groundwater and eliminate leaching through BMPs routinely used as preventative measures at firing ranges.

Groundwater Use

Groundwater below the project site is not a source of water supply, as the SPC would continue to obtain its water supply from the Rio Grande and Rio Grande Basin through a contract with East Rio Hondo Water Supply Corporation at a maximum annual rate of 59,379,000 gallons. For more information on water supply, see Section 3.5 - Utilities and Infrastructure. The 2017 Water Quality Report for the East Rio Hondo Water Supply Corporation indicates that the source of water supplied to the SPC is the Rio Grande River (ERHWSC, 2017).

3.2.1.2 Surface Water

The area of analysis for surface water includes the watershed that contains the Project and any water bodies within Cameron County that might be affected by runoff from the Project. Surface water features of the SPC consist of a local stormwater distribution system that includes culverts, drainage ditches, and overland flows. Runoff from the site enters the watershed and contributes to overall drainage patterns near the Project.

Surface Water Quality

The Texas Commission on Environmental Quality (TCEQ) establishes surface water quality standards for rivers, lakes, and estuaries; monitors and assesses their status; and implements pollution control projects to protect or restore natural waterways. Specifically, the project area is located within the Harlingen Regional Water District 15.

Water quality is regulated within the context of meeting standards established for compliance with the Clean Water Act (CWA), specifically:

- Integrated Sections 303(d) and 305(b) – The integrated sections 303(d) and 305(b) reporting process of the CWA requires that states identify water quality segments that fail to meet water quality standards. The 305(b) section is the water quality assessment portion of that process. The list developed is updated biannually for even years in the Texas Integrated Report prepared by the TCEQ. The most recent report available is for 2014. Cameron County listings of impaired water bodies for 2014 (TCEQ, 2014) that are proximate to the SPC and might be potentially impacted by surface water runoff from the SPC appear below as listed in the Texas Integrated Report:
 - Segment Identifier (SegID): 2201 Arroyo Colorado. Tidal from the confluence with Laguna Madre in Cameron/Willacy County to a point 100 yards downstream of Cemetery Road south of Port Harlingen with parameters that include bacteria, dichlorodiphenyldichloro-ethylene (DDE), depressed dissolved oxygen, mercury, and polychlorinated biphenyl (PCB).
 - SegID: 2201B Unnamed Drainage Ditch. Tributary (B) in Cameron County Drainage District #3 from the confluence with the Arroyo Colorado with a bacteria parameter.
 - SegID: 2202 Arroyo Colorado. Above Tidal from a point 110 yards downstream of Cemetery Road south of Port Harlingen to Farm to Market (FM) 2062 in Hidalgo County with parameters that include bacteria, mercury, and PCBs.
 - SegID: 2302 Rio Grande. Below Falcon Reservoir from a point 6.7 miles downstream of the International Bridge in Cameron County to Falcon Dam in Starr County with a bacteria parameter.

- SegID: 2491 Laguna Madre with parameters that include bacteria and depressed dissolved oxygen.
- SegID: 2491OW Laguna Madre (Oyster Waters) with a bacteria parameter.
- SegID: 2494 Brownsville Ship Channel from the Laguna Madre confluence upstream to the Port of Brownsville with a bacteria parameter.
- SegID: 2494A Port Isabel Fishing Harbor from the Laguna Madre confluence to 0.25 miles south of State Highway (SH) 100 in Port Isabel with a bacteria parameter.
- Section 401 – This section allows states and tribes to establish a certification process to ensure that standards will not be violated by discharge into a water body regulated under CWA Section 404. The certification review process in Texas is administered by the TCEQ. There are no Section 404 permits listed for the project site in TCEQ’s 401 Certification Tracking System (TCEQ, 2018).
- Section 402 – CWA Section 402 establishes the National Pollutant Discharge Elimination System (NPDES) program. The NPDES program in Texas is administered by the TCEQ. Construction that involves land disturbance will require a NPDES permit that addresses provisions for handling construction site runoff in a manner that avoids surface water quality impairment. Discharges from the wastewater treatment plant are also regulated by the NPDES program.
- Section 404 – Under CWA Section 404, the U.S. Army Corps of Engineers (USACE) regulates and permits the discharge of fill material into Waters of the U.S. including wetlands, as defined in 33 CFR § 328.4 (c) as those waters that compose the area of a watercourse that extends up to the ordinary high-water mark in the absence of wetlands, beyond the ordinary high-water mark to the limit of adjacent wetlands, or to the limit of wetlands when only wetlands are present.

Surface Water Use

The SPC would continue to obtain its water supply from the Rio Grande and Rio Grande Basin through a contract with East Rio Hondo Water Supply Corporation at a maximum annual rate of 59,379,000 gallons. For more information on water supply see Section 3.5, Utilities and Infrastructure. The 2017 Water Quality Report for the East Rio Hondo Water Supply Corporation indicates that the source of water supplied to the SPC is the Rio Grande River (ERHWSC, 2017).

There is a drainage feature just north of the campus security entrance gate in the south-central part of the SPC site that was once a reservoir for drinking water, but it is now abandoned. The abandoned reservoir has no current designed role in stormwater management.

The 2012 Facility Condition Assessment (FCA) for the SPC (FCA, 2013) states that the SPC site does not have an underground storm sewer system. The topography is relatively flat with a mild easterly slope varying across the site from 19 to 10 feet above sea level. The site is primarily unpaved surface with impervious surfaces clustered around buildings and structures. Stormwater runoff is sheet flow from impervious surfaces to established drainage ditches along the roads. The drainage ditches on the northern and eastern portions of the site collect into a large channel south of the administration building. This large channel directs flows to the southeast near the wastewater plant discharge point, where it then drains to the Cameron County Water Control and Improvement District No. 11 Drainage ditch, and thence to the Lower Laguna Madre in Segment No. 2491 of the Bays and Estuaries (TCEQ, 2015).

The FCA also states that drainage from the western and far northwestern portions of the facility is directed through drainage ditches to the large channel south of the Maintenance Building. The northern portion

of the site is also affected by runoff from the Cameron County Airport. Sheet flows from this large impervious area run onto the site, flooding areas near the Maintenance Building and overflowing drainage ditches in this area. Facility Maintenance periodically regrades the ditches to maintain runoff flows. The SPC staff reports that the site grounds become inundated with water when rainfall exceeds 0.5 inches.

The Master Development Plan (MDP) for the SPC also reports that the site is subject to localized flooding from frequent storms (MDP, 2009). It has been nine years since the MDP was prepared and five years since the FCA was prepared. There is no other evidence that there is a complete solution currently in place that effectively utilizes drainage system improvements such as properly designed culverts and drainageways.

Development that includes impervious surfaces can overtax local culverts and other drainage systems due to increased runoff, which may be true of the adjacent airfield north of the SPC site. The MDP recommends that the entire stormwater drainage system be improved using a watershed approach.

Section 438 of the Energy Independence and Security Act (EISA) of 2007 establishes stormwater runoff requirements for federal development and redevelopment projects, as follows:

“Stormwater runoff requirements for federal development projects. The sponsor of any development or redevelopment project involving a Federal facility with a footprint that exceeds 5,000 square feet shall use site planning, design, construction and maintenance strategies for the property to maintain or restore, to the maximum extent technically feasible, the predevelopment hydrology of the property with regard to the temperature, rate, volume and duration of flow.”

The Department of Homeland Security, through the Department of Homeland Security (DHS) Management Directive 025-01 “Sustainable Practices”, implements EISA and requires that any of its proposed development or redevelopment projects comply with EISA provisions.

3.2.1.3 Wetlands

The area of analysis includes the SPC project site. If a federal project site would be in or would affect wetlands, compliance with Executive Order (EO) 11990 requires a wetlands assessment that includes consideration of alternatives and an eight-step evaluation process. The site where primary project improvements are proposed to occur would primarily be on disturbed lands in the eastern portion of the SPC where no wetland areas are present. Freshwater emergent wetland areas are present in the western portion of the SPC and are important habitat for the endangered ocelot (*Leopardus pardalis*) and Gulf Coast jaguarundi (*Herpailurus yagouaroundi cacomitli*), as discussed in Section 3.3, Biological Resources. These wetland areas are addressed in a protective 2010 Memorandum of Understanding (MOU) between the U.S. Fish and Wildlife Service (USFWS) and Immigration and Customs Enforcement (ICE) (USFWS, 2010).

3.2.1.4 Floodplains

The area of analysis extends to the nearest floodplain limits established by the Federal Emergency Management Agency (FEMA). The project site is not located within a designated 100-year floodplain or base floodplain, which would trigger an eight-step evaluation process to comply with EO 11988, Floodplain Management, but the far corner of the SPC site southeast of the Medical Building is within the 500-year floodplain (FEMA, 2018).

3.2.1.5 Coastal Management Program

The Texas General Land Office (GLO) is responsible for managing the Texas Coastal Management Program, which is a program funded by the National Oceanic and Atmospheric Administration that focuses on protecting the State's coastal natural resource areas. The GLO administers a program for leases and easements for proposed actions involving Coastal Public Lands (submerged lands) and it also reviews federal actions in the Texas coastal zone to ensure consistency with the goal and policies of the Coastal Management Program (CMP). The SPC site has no submerged lands that would require leases and easements.

3.2.2 Environmental Consequences

This section addresses the potential effects of the Proposed Action (Preferred Alternative) and the No Action Alternative on the water resources occurring in the area of analysis.

3.2.2.1 Proposed Action (Preferred Alternative)

The following subsection analyzes the expected impacts of the Preferred Alternative on groundwater and surface water resources.

Groundwater

Since there are no major aquifers underlying the site, because project plans will not use groundwater, and the groundwater that does underlie the site is shallow, Class 3, and unsuitable as a drinking water source, there would be minimal potential impact on groundwater due to proposed activities. However, to the extent that groundwater underlying the project site could eventually flow into existing on-site wetland areas serving as habitat for endangered ocelot and jaguarundi species, or the regulated impaired surface waters outside of the SPC as listed in the Texas Integrated Report and described in the previous section, it is important that groundwater quality at the site does not deteriorate.

The potential for the Project to impact groundwater quality could occur if there is an introduction of contaminants into groundwater recharge areas. The utilization of runoff storage areas determined to be necessary by project development plans would allow for the natural, on-site biological treatment of contaminants that might otherwise enter groundwater at the site. A beneficial impact can occur whenever runoff is stored or detained because the runoff water is held or slowed allowing an opportunity for natural contaminant degradation processes to occur, such as settling of heavy metals and exposure to sunlight and microbial action from plants and soils.

Preliminary testing of the soils of the firing range berms and surrounding area has occurred, and additional testing for lead concentrations is anticipated to occur. Soil lead levels in the berms and range area are consistent with a well-used firing range. If additional testing of the of the berm soils and surrounding areas at the pistol and rifle ranges determines that there is a potential for lead contamination threat to groundwater quality, plans will be developed to implement BMPs routinely used as preventive measures for firing ranges that would mitigate the potential for leaching of lead to groundwater. These plans would be developed in accordance with BMPs for Firing Ranges promulgated by the USEPA. Activities to reduce potential leaching of lead into groundwater could include removing lead from the berms and range soils and recycling the lead, or ensuring the soil remains at a pH conducive to ionic bonding of lead to soil particles. If additional testing indicates that there is potential for lead to leach into groundwater, additional BMPs for lead routinely used as preventive measures for firing ranges would be implemented, which would result in groundwater quality being improved over time.

As discussed above, the existing groundwater below the site is unusable as a drinking water source. The presence of shallow groundwater below the SPC could also contribute to the ecological balance of the wetland areas. There are no project actions that would consume groundwater.

Based on the criteria presented at the beginning of Chapter 3, the Preferred Alternative would result in overall direct and adverse impacts on groundwater resources that have minor magnitude, short-term duration, localized extent and high likelihood. Short-term impacts are construction related and are expected to be minor in magnitude due to indirect effects from restrictions placed on surface water quality in the NPDES permit. Long-term impacts would be beneficial to the extent they include groundwater quality improvements (or groundwater contamination prevention) from any cleanup of lead contamination at the ranges that has occurred prior to proposed project activities, and from the use of runoff storage areas that would allow for some level of biological treatment of stormwater runoff.

Surface Water

The potential utilization of runoff storage areas, if determined to be necessary by project development plans in compliance with EISA, would allow for the natural, on-site biological treatment of contaminants that might otherwise enter surface water at and flowing from the site. The treatment occurs to a degree whenever runoff is stored or detained and there is an opportunity for natural contaminant degradation processes to occur. This could help prevent further degradation of the impaired waters on the current CWA Sections 303(d) and 305(b) list due to project activities.

Since there are no section 404 permits listed for the project site and because projects will not take place in Waters of the U.S., there are no impacts associated with either CWA Section 401 or CWA Section 404.

The Project includes construction that involves land disturbance and would require a NPDES permit complying with CWA Section 402 addressing provisions for handling construction site runoff in a manner that avoids surface water quality impairment. Such provisions typically include industry-standard erosion control measures and revegetation of the disturbed areas.

Under a lead cleanup and recycling or lead immobilization scenario at the pistol and rifle ranges, surface water quality would be improved over time. Before cleanup is achieved, surface water quality could remain degraded due to contamination from past use of the ranges and not because of the proposed project development.

Project development plans include provisions for compliance with Section 438 of EISA DHS Management Directive 025-01 "Sustainable Practices". These development plans may include the use of runoff storage basins and bioswales, and sizing of drainage system components that would restrict post-development runoff to predevelopment levels. Proper design of these provisions could also have a long-term, beneficial impact on the reduction of any existing localized flooding from heavy rain storms, such as that mentioned in the 2009 MDP and 2012 FCA.

Proposed water use for the project would be supplied within the allocated maximum annual rate of water allowed under Water Use Permit No. 3128A (as amended and granted October 24, 2017). ICE contracts with the East Rio Hondo Water Supply Corporation to supply potable water to the SPC. The water is extracted from the Rio Grande and Rio Grande Basin. There would be little or no impact to the annual quantity of water supplied to the SPC site overall due to project activities.

Based on the criteria presented at the beginning of Chapter 3, the Preferred Alternative would result in overall direct and adverse impacts on surface water resources that have minor magnitude, short-term duration, localized extent and high likelihood. Short-term impacts are construction related and are expected to be minor in magnitude due to restrictions placed on surface water quality in the NPDES permit and because BMPs routinely used as preventive measures for firing ranges will be implemented. Long-term impacts would be beneficial to the extent they include surface water quality improvements from any cleanup of lead contamination at the ranges that has occurred prior to proposed project activities and the use of runoff storage areas that would allow for some level of biological treatment of stormwater runoff.

Wetlands

The primary project improvements are proposed to occur on disturbed lands where no wetland areas are present. Part of the proposed Project would potentially restore the berms in the firing ranges, including the removal of lead in the form of spent ammunition from the berms. Though there are freshwater emergent wetlands near these ranges, they would not be affected by construction work for the Project because all work would occur in the footprint of the developed and actively used firing ranges. There are existing access roads serving the range facilities, so it would be unnecessary for construction traffic to disturb wetlands to gain access to the berm areas. Therefore, the Project complies with EO 11990, Protection of Wetlands and does not require a wetlands assessment.

It is possible that groundwater underlying the firing range sites or surface water accepting runoff from the lead-contaminated sites would eventually flow into the existing on-site wetland areas. Thus, it is important that water quality at the SPC be maintained at current levels or be improved over time. Plans will be developed to implement BMPs routinely used as preventive measures for firing ranges that would mitigate the potential for contamination of wetlands. These plans would be developed in accordance with BMPs for Firing Ranges promulgated by the USEPA. Activities to reduce potential leaching of lead into groundwater could include removing lead from the berms and range soils and recycling the lead, or ensuring the soil remains at a pH conducive to ionic bonding of lead to soil particles.

Based on the criteria presented at the beginning of Chapter 3, the Preferred Alternative would result in overall direct and adverse impacts on wetland resources that have minor magnitude, short-term duration, localized extent and high likelihood. Short-term impacts are construction related and are expected to be minor in magnitude due to indirect effects from restrictions placed on surface water quality in the NPDES permit. Long-term impacts would be beneficial to the extent they include water quality improvements from any cleanup of lead contamination at the ranges that has occurred prior to proposed project activities.

Floodplains

No portion of the SPC site is located with the 100-year base floodplain and is therefore in compliance with EO 11988. The southeast corner of the SPC is within the 500-year floodplain and is within an area of low to moderate flood risk for which the National Flood Insurance Program (NFIP) has no minimum design and construction requirements for buildings. The Project has only conduit, fencing, roadway repair (in-place), and wastewater treatment plant improvements planned for this area, and therefore, the impacts on the floodplain would be minimal.

Based on the criteria presented at the beginning of Chapter 3, the Preferred Alternative would result in overall direct and adverse impacts on floodplain resources that have minor magnitude, short-term

duration, localized extent, and high likelihood. Both long-term and short-term impacts are expected to be minor in magnitude due to the limited obtrusive nature of the proposed project improvements in the area affected by the 500-year floodplain and the fact that the NFIP has no minimum design and construction requirements for buildings in the 500-year floodplain.

Coastal Management Program

The Texas GLO has provided an August 29, 2018 letter in response to a notice regarding the preparation of this EA stating that, based on the information provided to them, it does not appear that the Project will involve Coastal Public Lands requiring a lease or easement (GLO, 2018). They have also stated that since this would be a federal action that will occur within the Coastal Management Zone, a Federal Consistency Review would be required demonstrating consistency with CMP goals and policies as described in the Texas Administrative Code §501.12 and §501.13.

The Preferred Alternative activities, as demonstrated in the complete and thorough analysis of the draft EA and the Final EA, comply with Texas's approved coastal management program and will be conducted in a manner consistent with such program. A notice of availability (NOA) of the draft EA was emailed to the contacts provided in the GLO letter. A NOA of the draft EA was also published on November 29, 2018 in the Valley Morning Star Publication and the San Antonio Express. This notice provided instructions as to where the public and other interested parties, such as the GLO, could review the draft EA. The draft EA was made available on the Department of Homeland Security website, and in hard copy in the Laguna Vista Public Library and the Central Library in San Antonio, TX. Comments were accepted through January 30, 2019. No comments were received.

Based on the criteria presented at the beginning of Chapter 3, the Preferred Alternative would result in overall direct and adverse impacts on water resources that have minor magnitude, short-term duration, localized extent and high likelihood.

3.2.2.2 No Action Alternative

The No Action Alternative would result in no direct and adverse impacts. No construction, improvement of infrastructure or demolition would occur under the No Action Alternative. As such, no direct adverse impacts would occur. There also would not be indirect beneficial impacts, including:

- The SPC site experiences localized flooding during storms having less than 100-year frequency. This is most likely because the drainage system is undersized to handle these storms. An upgrade of drainage system capacity would not occur, and these flooding conditions would continue.
- If lead remains within the berms of the firing ranges, the potential for degradation of groundwater and existing freshwater emergent wetlands is unknown and potentially remains as an adverse impact. There would be no action to remove or immobilize a potential contamination source (lead) from soils in the berms and range area.

3.3 BIOLOGICAL RESOURCES

Biological resources include vegetation, wildlife (including migratory bird species covered by the Migratory Bird Treaty Act (MBTA)), special status species (including federal endangered, threatened, candidate, and State of Texas protected species), and critical habitat. Together, these resources form the ecological character of a given site. The area of analysis for all biological resources comprises the Port Isabel SPC.

3.3.1 Affected Environment

The Port Isabel SPC is located in an area of high biodiversity. Laguna Madre, a unique hypersaline lagoon system, is approximately two miles east of the Port Isabel SPC. The majority of Cameron County and the surrounding area have been converted to agriculture (Entwistle et al., 2017); however, the Laguna Atascosa National Wildlife Refuge (NWR) is the largest area of protected natural habitat in the Lower Rio Grande Valley and borders portions of the southern and southeastern boundaries of the Port Isabel SPC. The proximity of the Laguna Atascosa NWR and Laguna Madre to the Port Isabel SPC likely accounts for the high diversity and amount of wildlife, particularly avian species, using the SPC.

According to Bailey's multi-tiered classification of ecoregions contained in the U.S. Forest Service's Descriptions of the Ecoregions of the United States (USFS, 1995), an ecoregion contains geographically distinct environmental communities and conditions based on several tiers of classification. Because ecoregions are defined by their shared biotic and abiotic characteristics, they represent practical units on which to base conservation planning. The characteristics of the ecoregion can be used to predict the natural and biological resources that would be expected to be present if not for human actions. The ecoregion does not necessarily describe the conditions expected at the site of the proposed Project.

The Port Isabel SPC is located in the Southwest Plateau and Plains Dry Steppe and Shrub Province (USFS, 2015a and 2015b). This is a region of flat to rolling plains and plateaus occasionally dissected by canyons at the western end of the Gulf Coastal Plain and the southern end of the Great Plains. The climate is semiarid. Summers are long and hot, and winters are short and mild. This province most closely resembles the ecoregion characterized by the Texas Parks and Wildlife Department (TPWD) as the South Texas Brush Country, which is characterized by plains of thorny shrubs and trees and scattered patches of palms and subtropical woodlands in the Rio Grande Valley (TPWD, No Date-a). The primary vegetation consists of thorny brush such as mesquite, acacia, and prickly pear mixed with areas of grassland. 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.

The project area occurs on the edge of this South Texas Brush Country ecoregion and the Gulf Coast Prairies and Marshes ecoregion (TPWD, No Date-a). This region is a nearly level, slowly drained plain less than 150 feet in elevation, dissected by streams and rivers flowing into the Gulf of Mexico. The region includes barrier islands along the coast, salt grass marshes surrounding bays and estuaries, remnant tallgrass prairies, oak parklands and oak mottes scattered along the coast and tall woodlands in the river bottomlands. Native vegetation consists of tallgrass prairies and live oak woodlands. Brush species such as mesquite and acacias are more common now than in the past. Although much of the native habitat has been lost to agriculture and urbanization, the region still provides important habitat for migratory birds and spawning areas for fish and shrimp (Entwistle et al., 2017).

3.3.1.1 Vegetation

The eastern half of the SPC property and the small area to the south where the shoot house is located mainly comprise developed areas, barren areas and disturbed grassland (Figure 3.3-1). The majority of the eastern half of the property is mowed on a regular basis and consists primarily of common Bermuda grass (*Cynodon dactylon*) mixed with some Johnson grass (*Sorghum halepense*) and native grasses. There are a few trees and shrubs interspersed throughout the area, including live oak (*Quercus virginiana*), palm and mesquite. Along the eastern border of the property, a small remnant of native shrubland extends off the property toward the Laguna Atascosa NWR. The habitat value of this shrubland has been reduced more than that of the western half of the property because it is small and isolated from adjacent shrubland by fencing. Constructed drainage ditches on this side of the property may support native wetland vegetation.

The western half of the SPC property consists primarily of two communities of native shrubland, the Clayey Blackbrush Mixed Shrubland and the Loma Evergreen Shrubland, as well as smaller areas of disturbed grassland and salty prairie (Figure 3.3-1). The Clayey Blackbrush Mixed Shrubland is a variant of the Tamaulipan Mixed Deciduous Thornscrub community. Sites are typically dominated by a dense canopy of blackbrush (*Acacia rigidula*), but these sites may have numerous species in the canopy, including honey mesquite (*Prosopis glandulosa*), granjeno (*Celtis ehrenbergiana*), brasil (*Condalia hookeri*) and Lindheimer pricklypear (*Opuntia engelmannii* var. *lindheimeri*) (TPWD, No Date-b). These shrublands may be tall (to two or more meters in height) making them resemble dense woodlands. This area of thick, native brush on the western portion of the Port Isabel SPC, which is left undisturbed to preserve habitat, provides high value wildlife habitat to brush-dependent species such as the ocelot.

Loma Evergreen Shrubland is a variant of the Tamaulipan Lomas community, with sites occurring on clay dunes where the shrub layer is dense and may contain a preponderance of evergreen shrubs such as Texas ebony (*Ebenopsis ebano*), Spanish dagger (*Yucca treculeana*) and Lindheimer pricklypear (*Opuntia engelmannii* var. *lindheimeri*) (TPWD, No Date-c). In this subtropical region, many species retain their leaves throughout the winter and only lose their leaves during drought.

The salty prairie is a variant of the Texas Saline Coastal Prairie community, with sites generally lacking significant shrub cover (TPWD, No Date-d). Sites may be nearly monotypic stands of Gulf cordgrass (*Spartina spartinae*). Other graminoids that may be present to abundant include little bluestem (*Schizachyrium scoparium*), bushy bluestem (*Andropogon glomeratus*), switchgrass (*Panicum virgatum*), Gulf muhly (*Muhlenbergia capillaris*) and rat-tail smutgrass (*Sporobolus indicus*).

Sensitive Vegetation Communities

The Texas Natural Diversity Database (TXNDD) identified five sensitive vegetation communities or series that occur within the project vicinity (TXNDD, 2018):

- Texas ebony – anacua series (*Pithecellobium ebano* – *ehretia anucua*);
- Texas ebony – snake eyes series (*Pithecellobium ebano* – *phaulothamnus spinescens*);
- Texas ebony – snake-eyes – Berlandier fiddlewood series (*Pithecellobium ebano* *phaulothamnus spinescens* – *citharexylum berlandieri*);
- Mesquite – huisache series (*Prosopis glandulosa* – *acacia smallii*); and
- Sea oats – bitter panicum series (*Uniola paniculata* – *panicum amarum*).

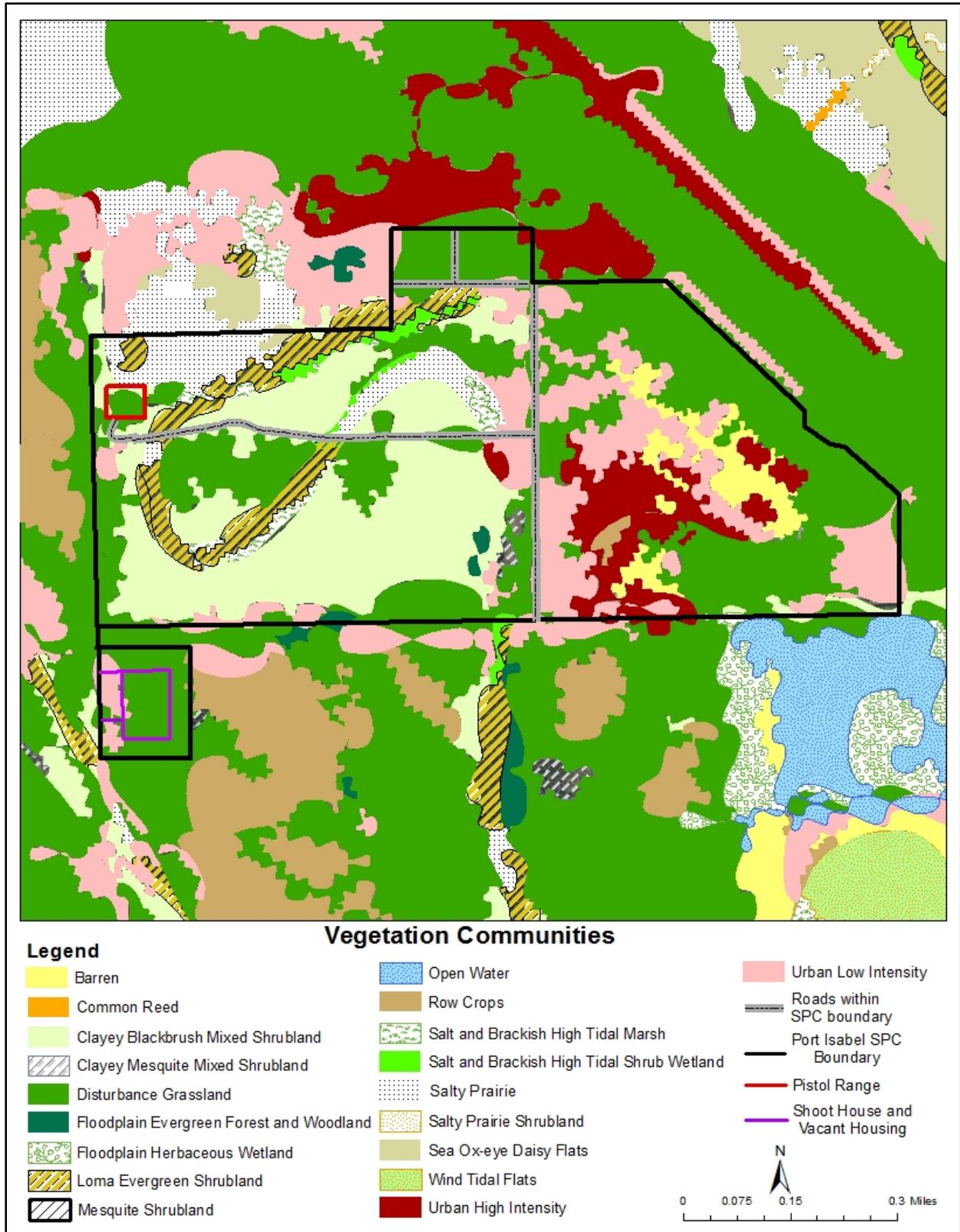


Figure 3.3-1. Vegetation Communities at the Port Isabel SPC and Vicinity

Of these, appropriate habitat for the mesquite-huisache series occurs on the western half of the Port Isabel SPC. This series occurs in disturbed, wet areas, such as depressions, drainages and resaca (small isolated lakes) banks (Bezanson, 2000). Dominant species in this series typically include mesquite, retama (*Parkinsonia aculeata*), granjeno, huisache (*Acacia smallii*), colima (*Zanthoxylum fagara*), seep-willow (*Baccharis salicifolia*), baccharis (*Baccharis halimifolia*), rattlebush (*Sesbania drummondii*), grasses, weedy forbs, and hydrophytes. Black willow (*Salix nigra*), black mimosa (*Mimosa pigra*), amantillo (*Abutilon trisulcatum*), hairy panicum (*Panicum hirsutum*), common reed (*Phragmites australis*), giant reed (*Arundo donax*), and brush species of the adjacent communities may also be present (Bezanson, 2000).

The Texas ebony-anacua series is mapped by TXNDD as occurring in the Laguna Atascosa NWR (TXNDD, 2018), with the potential to occur up to the southeastern boundary of the Port Isabel SPC. However, based on past and current land uses and maintenance practices, including routine mowing, the likelihood of the Texas ebony-anacua series occurring on the eastern portion of the SPC property is low.

Special Status Plant Species

The western portion of the Port Isabel SPC, where native brush and resaca vegetation persist, is the most likely area for special status plant species to occur. The TXNDD and TPWD list 21 sensitive plant species that may occur in Cameron County (TPWD, 2018a). Three of these plant species are also federally listed as endangered: South Texas ambrosia (*Ambrosia cheiranthifolia*), star cactus (*Astrophytum asterias*) and Texas ayenia (*Ayenia limitaris*). The other plants identified as sensitive have no state or federal protected species status.

The distribution of two sensitive plant species as mapped by TXNDD overlaps with the Port Isabel SPC (TPWD, 2018a). Lila de los llanos (*Echeandia chandleri*) has the potential to occur on the undeveloped portion of the western half (shrubland) of the Port Isabel SPC, as well as the northern portion of the eastern half of the Port Isabel SPC on the small strip of shrubland that is present in this area (TXNDD, 2018). This species typically occurs in subtropical thorn shrublands on clay soils and grows between shrubs or in grassy openings. Lila de los llanos has also been observed growing in upland coastal prairies, along railroad rights-of-way, and in cemeteries. Texas stonecrop (*Lenophyllum texanum*) also has the potential to occur in the project area to the south. It is found in shrublands on clay dunes at the mouth of the Rio Grande and on xeric calcareous rock outcrops at scattered inland sites.

Critical habitat, as defined by the Endangered Species Act of 1973 (ESA) and designated by the USFWS, is the habitat necessary to support the special needs of federally threatened or endangered species. No critical habitats for plants have been identified within any portion of the Port Isabel SPC (USFWS, 2018).

Invasive Plant Species

The Texas Department of Agriculture lists a total of 31 plant species as invasive (four species) or noxious (27 species) within the state of Texas (NRCS, 2018b). The Natural Resources Conservation Service (NRCS) Plants Database shows six of these species as confirmed in Cameron County: balloonvine (*Cardiospermum halicacabum*), Brazilian peppertree (*Schinus terebinthifolius*), Chinese tallow tree (*Treadica sebifera*), giant reed, saltceder (*Tamarix* spp.), and water hyacinth (*Eichhornia crassipes*); NRCS 2018b). Other invasive or noxious plants that have not yet been documented may be established in Cameron County. Suitable habitat for these six species exists in the upland and wetland areas of Port Isabel SPC.

Additionally, TexasInvasives.org has an online database which includes 137 species known to occur in or around Texas and known or suspected to cause ecological disturbance (TexasInvasive, No Date). TPWD

lists 19 prohibited aquatic exotic species in Texas (TPWD, 2018b). These species are legally classified as exotic, harmful or potentially harmful.

3.3.1.2 Wildlife

South Texas, and particularly the Lower Rio Grande Valley, is an area of high species diversity because of its location as an ecological convergence zone of coastal grasslands to the east, Tamaulipan thornscrub and subtropical woodlands along the Rio Grande to the south and the Chihuahuan desert to the west (Bezanson, 2000, TPWD, No Date-e). This location allows the southern-most area of Texas to support southern species that are at the northernmost portion of their range, including a very high diversity of migrating birds using the Central Flyway funnel through the tip of Texas in an effort to avoid flying too far east over the Gulf Coast, or too far west over the desert (USFWS, 2016). Additionally, Texas supports a great diversity of insects, including hundreds of species of butterflies and moths.

The Laguna Atascosa NWR borders the SPC property, and the Lower Rio Grande Valley NWR is approximately 45 miles east of the SPC. Both of these refuges are managed to support a high diversity and abundance of wildlife, particularly neotropical migratory birds, shorebirds, raptors, waterfowl and the federally endangered ocelot (9). The Lower Rio Grande Valley NWR alone provides year-round, wintering or migratory habitat to over 300 species of butterflies and 700 vertebrate species, including almost 520 species of birds (USFWS, 2012).

The SPC's proximity to the coast and these NWRs likely increases the diversity and amount of wildlife, especially birds, using the property. The number and diversity of birds using and flying over the Port Isabel SPC likely increases during the migration season. Species diversity and abundance are likely to be highest in the undeveloped portion of the western half of the SPC where native habitats persist. The undeveloped portion of the western half can support upland, brush dependent species and species requiring wetland habitat.

The eastern half of the SPC is regularly mowed, has been planted with non-native grasses, and has been maintained as a developed facility since at least the 1950s. Since the eastern half of the project area does not support the diverse native habitats present in the undeveloped portion of the western half of the SPC, it is likely to have lower wildlife species abundance and diversity. Species occurring in the eastern half are probably mostly those adapted to human development such as the roof rat (*Rattus rattus*), house mouse (*Mus musculus*), killdeer (*Charadrius vociferus*), doves, grackles, house sparrows (*Passer domesticus*), and anoles.

Migratory Birds

The MBTA of 1918 (16 U.S.C. 701-715s) is the primary legislation in the U.S. established to conserve migratory birds. It implements the U.S. commitment to four bilateral treaties or conventions for protection of a shared migratory bird resource. Similarly, EO 13186 requires federal agencies to support the conservation intent of the migratory bird conventions by integrating bird conservation principles, measures and practices into agency activities; by avoiding or minimizing adverse impacts to migratory bird resources; and by minimizing the intentional taking of species of concern.

Hundreds of species of migratory birds are likely to be found within the Laguna Atascosa NWR located near the Port Isabel SPC. Located on the southern end of the Central Flyway, the refuge is a major stopover point on the lower Texas coast for waterfowl going to and from Mexico (USFWS, 2016). In November alone, when peak use occurs, more than 250,000 ducks depend on the refuge. It is estimated that 80

percent of the North American population of redhead ducks winter in this area. The refuge is also a vital stopover for neotropical songbirds that are migrating. Painted buntings (*Passerina ciris*), Bullock's oriole (*Icterus bullockii*) and various warbler and hummingbird species all depend on the Laguna Atascosa NWR during their migration.

While no avian surveys have been conducted at the Port Isabel SPC, the likelihood exists that migratory birds would be found within the property's western portion where native habitat exists.

Special Status Wildlife

Despite a history of land use by humans, the Rio Grande Plain harbors many rare species of plants and animals (TPWD, No Date-e). It is here that wild tropical cats such as ocelots (*Leopardus pardalis*) and jaguarundis (*Herpailurus yaguarondi*) still take refuge. Other special animals in this area include Ferruginous pygmy-owl (*Glaucidium brasilianum*), green jay (*Cyanocorax yncas*), elf owl (*Micrathene whitneyi*), Texas tortoise (*Gopherus berlandieri*), indigo snake (*Drymarchon melanurus erebennus*) and Mexican burrowing toad (*Rhinophrynus dorsalis*).

Sixty-one (61) rare, state-listed, and/or federally listed threatened or endangered species have been documented in Cameron County (not including fish and mollusks which are not discussed as there are no water bodies in the project area) (TPWD 2018a):

- Amphibians: Five state listed;
- Birds: 20 state listed (five of which are also federally listed) and nine rare but with no special listing status;
- Insects: Five rare but with no special listing status;
- Mammals: Seven state listed (four of which are also federally listed) and two rare but with no special listing status; and
- Reptiles: 12 state listed (five of which are also federally listed) and one rare but with no special listing status.

No critical habitats for wildlife have been identified within the Port Isabel SPC (USFWS, 2018).

Fourteen (14) rare or protected species identified by the TXNDD database occur in the project vicinity within approximately 10 miles of the SPC (TXNDD, 2018). Table 3.3-1 lists the species which could potentially be present in the project area if suitable habitat exists.

Table 3.3-1. Rare and Listed Species that have the Potential to Occur in the Project Area

Common Name	Scientific Name	Federal Status*	State Status	Habitat Description
Black-spotted newt	<i>Notophthalmus meridionalis</i>	--	T	Wet or sometimes wet areas such as arroyos, canals, ditches or even shallow depressions
Black-striped snake	<i>Coniophanes imperialis</i>	--	T	Extreme south Texas; semi-arid coastal plain, warm, moist micro-habitats and sandy soils
Jaguarundi	<i>Herpailurus yaguarondi</i>	E	E	Thick brushlands, near water favored
Mexican long-tongued bat	<i>Choeronycteris Mexicana</i>	--	^a	Deep canyons where it uses caves and mine tunnels as day roosts; also found in buildings
Mexican treefrog	<i>Smilisca baudinii</i>	--	T	Subtropical region of extreme southern Texas
Ocelot	<i>Leopardus pardalis</i>	E	E	Dense chaparral thickets; mesquite-thorn scrub and live oak mottes; avoids open areas
Northern Aplomado falcon	<i>Falco femoralis septentrionalis</i>	E	E	Open country, especially savanna and open woodland, and sometimes in very barren areas; grassy plains and valleys with scattered mesquite, yucca, and cactus
Sheep frog	<i>Hypopachus variolosus</i>	--	T	Predominantly grassland and savanna; moist sites in arid areas
South Texas siren (large form)	<i>Siren</i> sp. 1	--	T	Wet or sometimes wet areas, such as arroyos, canals, ditches or even shallow depressions
Speckled racer	<i>Drymobius margaritiferus</i>	--	T	Extreme south Texas; dense thickets near water, Texas palm groves, riparian woodlands; often in areas with much vegetation litter on ground
Texas horned lizard	<i>Phrynosoma cornutum</i>	--	T	Open, arid and semi-arid regions with sparse vegetation, including grass, cactus, scattered brush or scrubby trees; soil may vary

Common Name	Scientific Name	Federal Status*	State Status	Habitat Description
				in texture from sandy to rocky
Texas indigo snake	<i>Drymarchon melanurus erebennus</i>	--	T	Thornbush-chaparral woodlands of south Texas, in particular dense riparian corridors; can do well in suburban and irrigated croplands
Texas tortoise	<i>Gopherus berlandieri</i>	--	T	Open brush with a grass understory is preferred; open grass and bare ground are avoided; when inactive occupies shallow depressions at base of bush or cactus, sometimes in underground burrows or under objects
White-tailed hawk	<i>Buteo albicaudatus</i>	--	T	Near coast on prairies, cordgrass flats, and scrub-live oak; further inland on prairies, mesquite and oak savannas, and mixed savanna-chaparral

Sources: TPWD, 2018a, TXNDD, 2018.

Note: E = Endangered; T = Threatened.

^a = Considered rare in Texas but without state status.

Of the species listed in Table 3.3-1, only the ocelot is known to occur on the SPC in the western undeveloped portion of the property where the dense Tamaulipan thornscrub habitat is located. This area remains undeveloped through a MOU with the USFWS for protection of this species. Ocelots inhabit extremely dense shrublands, and prefer areas dominated by low brush species such as spiny hackberry, lotebush and blackbrush (TPWD, No Date-f). They avoid open areas. Additionally, the ocelot is known to use the canals, which are bordered by brush, as movement corridors. The drainage ditch that runs along the lower central part of the SPC between the existing facilities and the thornscrub vegetation is also good ocelot habitat. This habitat is an important ocelot corridor where ocelots are known to use it for denning, feeding, and traveling to and from the Laguna Atascosa NWR. It is unlikely the ocelot goes onto the main SPC campus because it is surrounded by fencing, open landscape, and human activity. Local threats to ocelots include loss of habitat, illegal hunting, and vehicular traffic on local roads, including Buena Vista Boulevard.

3.3.2 Environmental Consequences

This section addresses the potential effects of the Preferred Alternative and the No Action Alternative on the biological resources occurring in the area of analysis.

Impacts on vegetation would be considered significant if native vegetation is removed from specific plant communities that are considered to be locally or regionally important, or are known to play a critical role in maintaining local or regional ecosystem function and overall biodiversity; and if the amount of native

vegetative habitat removed from any specific plant community would be enough to substantially alter regional ecosystem function or overall biodiversity due to loss or displacement of species from the area.

Impacts on wildlife would be considered significant if there is loss of wildlife habitats that are considered to be locally or regionally important and are critical in maintaining ecosystem function and overall biodiversity in the local area or region; if loss of habitat affects the viability of at least some native species; if enough individuals of a wildlife population are removed so that it would substantially alter ecosystem function in that region; if population numbers, population structure, genetic variability, and other demographic factors for species have large, short-term declines, with long-term population numbers significantly depressed; if frequent responses to disturbance by some individuals occurs, with negative impacts to feeding, reproduction or other factors resulting in a long-term decrease in population levels; and if there is any violation of applicable state and federal wildlife laws.

Impacts on threatened and endangered species would be considered significant if there is violation of the federal ESA. The loss of any threatened or endangered species individual as a result of the proposed project would result in a significant impact.

3.3.2.1 Proposed Action (Preferred Alternative)

Under the Preferred Alternative, approximately three acres of vegetation and wildlife habitat would be disturbed in the Port Isabel SPC from proposed activities. Project activities would mainly occur in developed or disturbed areas on the eastern portion of the SPC; project activities that would occur where vegetation exists would be in areas with predominantly disturbed grasslands. All areas proposed for construction work are considered previously disturbed as the developed portion of the SPC was graded during original construction and has been maintained over time. Since vegetation in these areas is largely non-native, and as many activities would occur in areas devoid of vegetation, impacts of the Proposed Action would be considered minimal. No activities are proposed in native vegetation communities on the western portion of the SPC. Demolition of abandoned structures in the western portion of the SPC is proposed in disturbed areas; however, no native vegetation would be impacted by this work. Similarly, berms on the firing ranges near the western portion of the SPC may be re-constructed, but all work would occur within previously disturbed areas.

Vegetation

Long-term impacts to vegetation would occur where plants are cleared or removed in locations where proposed buildings, utilities, walkways, driveways, roads, fencing and other facilities would be constructed, repaired or rehabilitated (collectively referred to as construction). Heavy equipment may also cause short-term disturbance in adjacent areas beyond the footprint of construction and demolition sites. Repeated disturbance of vegetation (i.e., due to vehicle passes) during these activities would cause damage to plants and destruction of the vegetation mat. There would also be localized vegetation disturbance from foot traffic during construction activities. Adverse impacts from trampling would be short term as vegetation would be expected to recover over time. The overall impact on vegetation would be reduced by concentrating the area of disturbance to the smallest area necessary to complete the project. Loss of an individual or small number of members of a given plant species would not jeopardize the viability of the population in the area, particularly because vegetation at the proposed work sites is largely non-native.

Construction and demolition activities would result in soil compaction of the project site and surrounding area. Excessive soil compaction impedes root growth and limits the amount of soil available for roots,

decreasing a plant's ability to take up nutrients and water. Soil compaction also increases water runoff and soil erosion. Surface water runoff and sediment from areas disturbed by construction could adversely affect local vegetation by exposing soils and transporting sediment off-site. Though construction activities could result in an increase in soil compaction, erosion, and water runoff, the project site is already disturbed and has experienced soil compaction from past land use practices.

Exotic plants or seeds could be brought to the project site with fill material or on heavy equipment. Although the sites where proposed activities would occur already contain predominantly non-native plant species, heavy equipment should be cleaned and weed-free before entering the project area. New introductions could allow for exotic plants to become established and spread, especially in areas where the ground has been disturbed by construction and demolition activities. Exotic plants currently growing in the area can also become established and spread on newly disturbed substrates. BMPs should be implemented to ensure that imported material does not contain exotic plants or seeds. However, because Project activities would mainly occur in developed or disturbed areas which already contain exotic plants, any impacts arising from introduction of exotic plants associated with the Preferred Alternative would be minor regardless of whether BMPs are implemented.

During construction and demolition, adverse effects to on-site and local off-site vegetation may occur because of fugitive dust emissions from construction machinery and worker traffic. Dust can reduce photosynthesis by reducing the amount of light penetrating through the leaves of vegetation. Dust emissions could also increase the growth of plant fungal disease (NZME, 2001). These impacts would be temporary and could be minimized through the use of dust abatement practices (i.e., watering the exposed soil). After construction, vegetation would be expected to recover in a reasonable amount of time.

In order to minimize soil erosion and inhibit the establishment and propagation of invasive exotic plant species, once construction is completed, disturbed areas that are not covered by buildings or other impermeable surfaces could be revegetated with appropriate native plant species. However, any soil erosion and establishment or propagation of invasive plant species would be minimal regardless of whether the disturbed areas are revegetated. Over the long term, during operation of the Port Isabel SPC, vegetation would become reestablished within the disturbed areas that have been revegetated. This would be a beneficial effect on vegetation. No other impacts on vegetation would be expected during operation of the SPC.

Overall, construction and demolition activities under the Preferred Alternative would have adverse short- and long-term, negligible, small (limited) extent impacts on vegetation with a high likelihood of occurrence due to loss and disturbance of vegetation in the project area. As vegetation in the area of analysis consists primarily of non-native species on land that has been previously disturbed, such impacts would not be considered significant. Impacts during operation of the SPC would be beneficial, long-term, negligible, and small (limited) with a high likelihood of occurrence due to revegetation/landscaping of disturbed areas with native plant species. Although demolition of some existing buildings is proposed in the western portion of the SPC, no native vegetation communities would be impacted. Thus, there would be no impacts on native or sensitive plant communities or sensitive plant species in the Project area.

Wildlife

Wildlife that is present in the Project area would be temporarily disturbed or displaced by human presence and noise generated during construction and demolition activities; however, the developed portions of the SPC where Project activities would take place are used by limited numbers of wildlife species. Although

some noise and human activity already exists at the SPC, it would likely increase during project activities due to the operation of heavy equipment and vehicle use. Wildlife disturbance would be limited to the immediate area of the project site and to the period of construction. Increased human activities may disrupt wildlife movements during migration or dispersal, breeding, nesting, and normal behavior. Displaced animals could occupy areas of similar habitat in the vicinity outside the Project area. Careful selection of construction staging areas and limiting construction and demolition to times outside of migratory periods and to daytime activities would minimize adverse effects on migratory species and nocturnal animals. Wildlife in the habitats adjacent to the project sites may also be displaced temporarily by construction noise but are likely to return soon afterwards. Species are expected to return to the Project site in areas where vegetation is not cleared and habitat still exists or recovers.

Once construction is completed, some species may be prevented from using the resources at the Project site over the short term due to habitat disturbance until it recovers in areas that have been revegetated. Alteration of the Project site would reduce cover, forage and nesting habitat for some species. Wildlife occupying the Project site could also be permanently displaced to other locations over the long term due to habitat loss or removal where habitat is replaced by buildings, pavement, and other man-made surfaces. If this occurs, it is possible that survival would be reduced because of territorial fights and competition for food and cover. To minimize such adverse impacts, proposed activities would be confined to the Project area, and no surrounding wildlife habitats would be physically disturbed. Disturbed areas that are not hardened should be revegetated with native plants after construction, which would benefit some species by providing food and cover habitat elements.

Earthwork during construction could result in mortality of small mammals, reptiles and amphibians through individual animals or eggs being crushed by construction equipment or being excavated from burrows or other refugia during ground disturbing activities. These actions also have the potential to disrupt breeding cycles. Such impacts would be short term, and it is likely that few individuals or eggs would be affected.

Impacts on migratory birds would be similar to those described for general wildlife. Additionally, construction and demolition impacts during the bird breeding season could result in nest destruction or abandonment if any are present, direct mortality with the loss of broods and fledged young, or bird displacement. Impacts to nesting birds would be minimized or avoided if timing of proposed activities occurs outside of the bird breeding season. However, it is possible that some activities may occur during the breeding seasons of some birds without detrimental effects. To minimize impacts during construction and demolition to bird species protected under the MBTA, avoidance and mitigation measures may include vegetation and nest removal activities outside the nesting season to the extent practicable, preconstruction clearance surveys during the nesting season by a qualified biologist to identify active nests, and avoidance measures for nests observed within and immediately adjacent to the active Project area. However, because Project activities would occur in developed or disturbed areas which may be used by limited numbers of migratory birds, any impacts associated with the Preferred Alternative would be minor regardless of whether mitigation measures are implemented.

It is unlikely that alteration or destruction of the habitat for any of the species listed in Table 3.3-1 would occur as proposed activities would be conducted in disturbed areas. The potential for special status plant and animal species to be present where proposed actions would occur in the eastern portion of the project area, or at the pistol range, rifle range and small area south of the southwest corner of the SPC outside the main project boundary are low given the existing development and disturbed conditions. It is possible, however, that noise during construction and demolition could disturb special status species that may be

present in adjacent habitats, similar to the disturbance described for general wildlife. In the unlikely event that special status species are found, the project site would be under resource closure and no activities would occur until mitigation is implemented and consultation with USFWS for federally listed species is conducted. Thus, adverse impacts to special status species could be minimized or completely avoided.

Ocelots move between habitat areas on the Port Isabel property to the Laguna Atascosa NWR and to pockets of habitat to the south along the southern border of the Port Isabel SPC. However, as all of the proposed activities would occur in the developed eastern portion of the SPC, there would be no loss of ocelot habitat as a result of the Preferred Alternative. Similarly, all construction and demolition activities would occur during daylight working hours; thus, there would be no increase in traffic on adjacent roads during the evening or overnight hours when the ocelot is most active.

The USFWS has worked with the SPC for many years to avoid and minimize impacts to the ocelot and its habitat. The following BMPs developed by the USFWS would be implemented to avoid and/or minimize impacts to the federally-listed ocelot and jaguarundi and are required to reduce the significance of adverse effects on these species:

- Individual federally-listed animals found in the Project area would not be harassed and would be allowed to leave of their own volition. An individual with the authority to stop construction activities would be on-site during construction activities and would halt all activities immediately upon report of an ocelot or jaguarundi sighting.
- During construction activities, an environmental monitor with authority to temporarily suspend construction at any time if the appropriate BMPs are not being properly implemented would be present on site. Duties of the monitor would include ensuring that activities stay within designated project areas, evaluating the response of individuals that come near the Project site, and implementing the appropriate BMP.
- Vegetation clearing beyond the design parameters needed for construction, maintenance and use would be avoided. The perimeter of all construction or maintenance areas would be clearly demarcated using flagging or temporary construction fence, and no disturbance outside of that perimeter would be authorized.
- Materials such as sand would be obtained from existing developed or previously used sources, not from undisturbed areas adjacent to the project area.
- If new or improved access is needed, plans would be coordinated with the USFWS.
- Tree and brush removal should be minimized, and permanent loss would be restored with native vegetation.
- All food related trash items would be disposed of and removed daily from the project site to eliminate attraction of predators.
- All equipment, materials, and vehicles would be staged in designated areas that are currently cleared and covered with aggregate.
- Construction and maintenance activities would be conducted only during daylight hours to avoid noise and lighting issues at night. Noise levels should be minimized, and all generators should be in baffle boxes (a sound-resistant box that is placed over or around a generator), have an attached muffler, or use other noise-abatement methods in accordance with industry standard.

- Vehicle traffic associated with the project would remain on established roads and speeds would be reduced to the maximum extent practicable.
- No fences or barriers should bisect or fragment jaguarundi or ocelot dispersal corridors or prevent access to fresh water.
- Waste water (water used for project purposes that is contaminated with construction materials or water used for cleaning equipment and thus carrying oils, other toxic materials or other contaminants) should be stored in closed containers in accordance with state regulations on-site until removed for disposal.
- All personnel involved with the on-the-ground construction or maintenance for the proposed action would receive training in the affected species, the agreed upon BMPs and the role of the construction monitor.
- Documentation of observed ocelots and jaguarundi in project and activity areas would be reported to the USFWS.
- No restoration activities, including monitoring, would occur in November and December to avoid the peak reproductive season of Gulf Coast jaguarundi.
- Lighting would be down-shielded to illuminate facility or parking areas and would not shine on surrounding vegetated areas, as the ocelot and jaguarundi are usually active at night, dawn, and dusk.
- Riparian areas or canals would be protected from construction and/or use, as these are areas that are used as travel corridors for cats, and a vegetative buffer would be maintained.

Overall, proposed activities under the Preferred Alternative would have adverse short- and long-term, minor, medium (localized) extent impacts on wildlife with a high likelihood of occurrence due to disturbance of animals and loss of habitat in the Project area. However, since the presence of wildlife is likely sparse at sites where construction and demolition would occur, and the Project site includes mainly non-native habitat on land that has been previously disturbed, such impacts would not be considered significant. ICE has made a no effect determination for threatened or endangered species in accordance with Section 7 of the ESA; there will be no direct take of migratory bird species. With the implementation of avoidance and mitigation strategies, adverse impacts on special status species would likely be even more reduced in magnitude than on general wildlife.

3.3.2.2 No Action Alternative

No new impacts on biological resources at the Port Isabel SPC would occur under the No Action Alternative as none of the proposed actions would occur. Overall, impacts of the No Action Alternative on biological resources would not be significant.

3.4 HAZARDOUS WASTE AND MATERIALS

Specific environmental statutes and regulations govern hazardous material and hazardous waste management activities at Federal operations and facilities. For this analysis, the terms hazardous waste, hazardous materials and toxic substances include those substances defined as hazardous by the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), RCRA, and the Spill Prevention, Control, and Countermeasures (SPCC) Rule under the CWA. In general, they include substances that, because of their quantity, concentration, or physical, chemical or toxic characteristics,

may present a danger to public health or welfare or the environment when released into the environment. The purpose of CERCLA, often referred to as Superfund, is to clean up contaminated sites so that public health and welfare are not compromised. RCRA provides for “cradle to grave” regulation of hazardous wastes. The SPCC Plan outlines the methods and procedures established to minimize the potential for spills and discharges at a facility. Other federal laws applicable to hazardous waste and materials include:

- Clean Air Act (CAA);
- Safe Drinking Water Act (SDWA);
- Occupational Safety and Health Administration (OSHA);
- Toxic Substances Control Act (TSCA); and
- National Defense Authorization Act (NDAA).

In addition to the acts and laws mentioned above, EO 12088, *Federal Compliance with Pollution Control*, mandates that necessary actions be taken to prevent and control environmental pollution when federal activities or federal facilities are involved. Hazardous waste in Texas is regulated primarily under the authority of the RCRA of 1976 and Title 30 of the Texas Administrative Code. Other Texas laws regarding hazardous waste are specific to handling, storage, transportation, disposal, treatment, reduction, cleanup and emergency planning. Worker health and safety and public safety, managed under OSHA, are key issues when dealing with hazardous materials that may affect human health and the environment.

3.4.1 Affected Environment

As described in Section 1.3 (Site Background), the Port Isabel SPC site is part of a former military base established by the U.S. Army Air Corps in the 1940s to be used as a gunnery training and facility and range. In 1962, the site was closed as a military base and a portion of the land was acquired by the former Immigration and Naturalization Service (INS) and Border Patrol to be used as a Border Patrol Training Academy and Detention Center. Currently, the land is used as a detention facility. The future land use at this site is expected to remain the same.

The area of analysis for hazardous waste and materials is the 364-acre Port Isabel SPC campus. The western half of the campus includes approximately 180 acres of undeveloped native shrubland. The remaining 184 acres, or the eastern half of the campus, includes the majority of SPC facilities.

3.4.1.1 Uses and Storage of Hazardous Materials and Wastes

The following section describes the hazardous materials and wastes currently generated and stored at the Port Isabel SPC. These are used for the maintenance of the detention center by onsite personnel.

Chemicals Associated with Maintenance Activities

Chemicals and other maintenance materials currently stored at the facility include paints, solvents, cleaning products, and pesticides that could be subject to regulation under RCRA. Maintenance warehouse buildings and pesticide sheds are used to store these materials. All maintenance activities are implemented per the industry’s standard practices.

Wastes such as spent fluorescent light bulbs and ballasts (universal waste), waste oil, lead acid batteries from bus repair, and medical waste are generated and stored onsite. Since the detention center produces less than 220 pounds of hazardous waste per month, it is categorized as a Conditionally Exempt Small Quantity Generator (CESQG). CESQGs face the lowest level of required actions for hazardous waste generators, but are still required to identify all the hazardous waste generated and ensure that hazardous waste is delivered to a person or facility authorized to manage it. All hazardous wastes at the facility are

managed and disposed of in accordance with state and federal regulations. Medical waste generated at the medical center and an on-site modular building is typically picked up and disposed of by a contractor on a weekly basis. Munition waste is generated at the firing ranges including spent brass casings, but the spent brass is recycled and is not considered hazardous waste if appropriately recycled. Spent munition is recycled by a contractor once every couple of months or as needed.

Additionally, vehicles operating onsite may occasionally contribute to minor oil and gasoline leaks. A SPCC Plan is in place at the SPC to contain and remove fluids such as lubricants and fuel (ICE, 2013).

Aboveground Storage Tanks

The Port Isabel SPC currently houses three regulated aboveground storage tanks (ASTs).¹ The 5,000-gallon double-walled gasoline AST is inactive. The two active tanks include a 10,000-gallon double-walled diesel AST and a 6,000-gallon double-walled gasoline AST. Two additional unregulated diesel tanks, a 300-gallon AST and a 200-gallon AST, are associated with emergency generators. There are several ASTs and 55-gallon drums that store used oil generated at the facility. The SPCC Plan which governs the procedures established for addressing fuel accidentally discharged from vehicles also outlines methods to prevent, minimize, and address the accidental discharge of petroleum product from fuel tanks (Port Isabel SPC SPCC Plan, 2013).

Polychlorinated biphenyls

A PCB is an organic chlorine compound. PCBs were once widely deployed as dielectric and coolant fluids in electrical apparatus, in carbonless copy paper, and in heat transfer fluids. In 1976, concern over the toxicity and persistence (i.e., chemical stability) of PCBs in the environment led Congress to ban their domestic production, as detailed in the TSCA (15 U.S.C. § 2605) (USEPA, 2017a). USEPA issued PCB usage and disposal regulations in 1979 (USEPA, 1979).

There are approximately 37 non-PCB transformers actively in use at the Port Isabel SPC. Twenty-three deteriorated and leaking transformers containing PCBs were discarded in the former Scrap Yard in the early 1990s under the direction of the USACE. A minor cleanup of the contaminated soil around the transformers was conducted (USACE, 2010). Currently, all transformers onsite are non-PCB transformers.

Asbestos and Lead-Based Paint

Since some structures currently in use at the SPC were constructed in the 1940s and 1950s, asbestos and lead-based paint (LBP) are suspected to be present in 17 early-era structures and abandoned residential houses (USACE, 2009b).

A LBP survey conducted for the kitchen/dining building in 2011 confirmed the presence of lead paint in the metal ceiling support of the dining area's southwestern and northwestern portions (PIDC, 2011). In 2017, an asbestos-containing material (ACM) survey conducted for 11 buildings revealed the presence of asbestos in the following structures (ICE, 2017a):

- Building 9

¹ An AST is a non-vehicular device designed to contain petroleum products and is typically located on or above the surface of the ground or the floor of a structure below ground (30 TAC §334.2). ASTs present the risk of accidental spills or discharges of petroleum and petroleum products during loading/unloading operations, maintenance activities or when tank integrity is compromised, and are governed by the SPCC regulation (40 CFR § 112). According to Texas Administrative Code, only ASTs with a capacity greater than 1,100 gallons are regulated.

- Building 10
- Building 40
- Building 100
- Fire Station
- Laundry
- Mess Hall (also contains LBP)

Reportedly, some minor ACM and LBP remediation has previously occurred at the Port Isabel SPC (USACE, 2010).

Lead Accumulation at Firing Ranges

Two firing ranges are located in the western half of the property, the pistol range and the rifle range, are currently used for small arms training. In 2002, a site investigation was conducted at these ranges to evaluate the level of soil and groundwater contamination, if any, resulting from these training activities. At the pistol range, soil samples were collected from the target backstop berms and the surface to evaluate residual lead concentrations in the soil underlying the layer of bullets and metal fragments. Lead was detected in all the samples, its concentration ranging from 6.7 to 1,150 parts per million (ppm). The report suggested that potential transportation of residual lead contamination may be occurring off the range in stormwater runoff. In one soil sample, lead was detected at a concentration exceeding the critical Protective Concentration Level (PCL) of 300 ppm for groundwater protection from leachate containing lead from surface and subsurface soil. Lead was not detected in the surface water or groundwater samples at the pistol range (USACE, 2002).

At the rifle range, soil samples collected from the target backstop berms and the surface were found to have lead concentrations ranging from 6.4 to 3,060 ppm. Two of these samples exceeded the commercial/industrial critical PCL of 1,600 ppm, and three soil samples exceeded the critical PCL for groundwater protection from lead leachate. No lead was detected in the groundwater samples; surface water testing was not performed (USACE, 2002).

A site investigation was also conducted in November 2018. Lead concentrations ranged from to 41 ppm in a side-berm sample to 31,883 ppm in the impact area of the backstop berm at the pistol range. Lead concentrations ranged from to 23 ppm in the overshoot areas to 50,300 ppm in the impact area of the backstop berm at the rifle range (MT2, 2018). These values represent total lead concentrations in the portion of soil samples that were sized less than two millimeters. Select samples were also evaluated by the Toxicity Characteristic Leaching Procedure (TCLP) to determine the potential mobility of both organic and inorganic analytes, including lead, in the soils. This methodology is used to determine if soils would meet the definition of a hazardous waste in accordance with the Resource Conservation and Recovery Act. TCLP results were up to 1,410 mg/l at the backstop berm at the pistol range, and up to 600 mg/l in the backstop berm at the rifle range (MT2, 2018). These results indicate that the potential of lead to leach from these soils is high enough that if the soils were disposed of offsite (without any remediation), the soils would have to be treated as a hazardous waste. Further testing is planned to delineate extent of lead impact.

Munitions and Explosives of Concern

The current Port Isabel SPC campus, which was originally a part of the Naval Auxiliary Air Station (NAAS) established by the U.S. Army Air Corps in the 1940s, contains two munitions response sites (MRS): the

Burial Pit and Range Complex No. 1.² Located west of the current Rifle Range, the Burial Pit is a former landfill site which was used to dispose of domestic waste, brush, old paint cans, mattresses, light ballasts (potentially containing PCBs), wastewater treatment sludge, and unidentified barrels. It was closed with a clay cap in 1997, with all its contents remaining as such. Currently, the landfill is vegetated and is blocked off from further use. The Range Complex No. 1, which encompasses the entire western half and parts of the eastern half of the Port Isabel SPC, consists of the Pistol Range, Rifle Range, former Skeet Range One and an open burn/open detonation (OB/OD) area. Only the Pistol and Rifle Ranges are currently in use by the Port Isabel SPC personnel for arms training. The remainder of the western half of the SPC is left undeveloped to protect the habitat for the endangered ocelot (USACE, 2009b). The munitions associated with the MRSs include small arms ammunitions, explosives, pyrotechnics, and projectiles. A site inspection was conducted by USACE in 2008 to determine the presence of munitions and explosives of concern (MEC), munition constituents (MC) and munition debris (MD) at these sites (USACE, 2009c).

The Qualitative Reconnaissance (QR) performed at the two MRSs, totaling 8.6 miles, did not locate any MEC. No explosives were detected in the soil samples collected from Skeet Range One and the OB/OD area. A small number of MD items were observed near the Burial Pit and within the Range Complex No. 1. The USACE report indicated that the Burial Pit may have been used for the disposal of explosive debris; however, the exact nature of these items is unknown. Munitions such as small arms ammunitions, medium caliber munitions (20 millimeters), miniature practice bombs, pyrotechnics, and aerial rockets may have been disposed of at the landfill. There have been no previous MEC incidents reported at the facility (USACE, 2009c).

Former Scrap Yard

The former scrap yard, located in the same location as the former burial pit, contained old refrigeration and air conditioning units potentially containing oils and Freon, lead-acid batteries, 23 degraded and leaking transformers which could have contained PCB-laden oils, and other miscellaneous waste such as office equipment and maintenance tools (USACE, 2010). All materials were removed from the scrap yard sometime between 2010 and 2015.

Undetermined Areas

There are two undetermined areas: an Ammunition Area located in the vicinity of the Rifle Range, and a Clay Target Burial Ground located in the southeastern corner of the SPC, which are believed to contain potentially hazardous or explosive waste materials (USACE, 2010).

3.4.2 Environmental Consequences

Potential environmental consequences from the Proposed Action and the No Action Alternative are discussed in detail in the following sections. Potential environmental consequences from construction, infrastructure repair and rehabilitation, demolition and potential contact with hazardous waste and materials during implementation of the Proposed Action (Preferred Alternative) would be largely minimized or avoided by using industry standard BMPs.

² The former NAAS facility has three MRSs: The Burial Pit MRS, the Pistol Range MRS and Range Complex No. 1 MRS. However, the Pistol Range MRS falls outside the area of analysis and was excluded from the Qualitative Reconnaissance conducted by USACE in 2008.

3.4.2.1 Proposed Action (Preferred Alternative)

The Proposed Action would involve the construction of a new 9,600-square foot SHU, a 16,800-square foot (sf) warehouse, and a 5,000-sf expansion of the kitchen/dining hall building. A new natural gas-fueled emergency generator, a pad-mounted transformer, and high-efficiency heating, ventilation and air conditioning (HVAC) system would be installed at the facility. Additionally, a variety of infrastructure improvements and repairs would occur, and improvements would be made to the WWTP Plant, the electrical and communication conduits, fiber optics system, fire alarm system, fencing, roadways, and the SPC firing ranges. Implementing BMPs would minimize the potential for most adverse impacts.

Construction activities would require the onsite use and storage of hazardous materials such as diesel fuel, paint, adhesives, thinners, and solvents – which would inherently increase the risk of a spill. Additionally, operation of construction vehicles could result in gasoline/diesel fuel spills. Any spills or releases of hazardous materials, pollutants, contaminants, or petroleum products would result in short-term, adverse impacts to the affected soil or water resources. However, the magnitude of this impact would be minor because such instances would be immediately addressed in accordance with measures outlined in the SPCC Plan. In addition, by following appropriate BMPs, the risk of an oil or gasoline spill would be low, resulting in a low likelihood of adverse impacts. The storage, containment, or disposal of any municipal trash, construction debris deposits, soil stockpiles, universal waste, and potentially hazardous waste generated during the project would be addressed in accordance with the applicable regulations. Under the Proposed Action, potential impacts from construction activities would be minor and adverse with a low likelihood and small extent. Impacts would occur in the short term and would end once construction activities were completed.

Under this alternative, the berms at the SPC firing ranges would be raised to a higher elevation. Soil lead levels in the berms and range area are consistent with a well-used firing range (MT2, 2018). Prior to any renovation activities at this site, additional testing would also occur to determine if conditions exist around the ranges that could lead to lead leaching to the groundwater or migrating off-site. Appropriate BMPs would be implemented in accordance with USEPA's guidance for the management of active firing ranges and in accordance with applicable regulatory requirements to prevent, minimize and control hazardous materials during construction. In locations where high levels of lead are located, management plans would be developed and implemented in accordance with BMPs for outdoor firing ranges as promulgated by the USEPA and as discussed in Section 2.1.2.5. Under the Proposed Action, the removal of lead from the berms or the implementation of additional BMPs at the firing ranges would have a high likelihood of short term, minor beneficial impacts with a small extent. Once target practice resumed at the firing ranges, lead would continue to accumulate at the berms and after several years, testing and possible removal of lead would be required.

As part of the renovation activities, hazardous materials including ACMs would be abated in the kitchen and dining area, per the Texas Asbestos Health Protection regulations (25 TAC §295.31). The ACM would likely not be removed prior to demolition of Building 100 and the old staff housing. The contractor would submit asbestos sampling results to the TCEQ and get a permit for demolition. The contractor would follow TCEQ protocols and there could be an onsite monitor to measure air emissions during demolition. Strict adherence to OSHA standards and other relevant safety laws, rules, and regulations would be observed by construction workers to reduce the risk of ACM exposure during such activities. All locations containing LBPs would be evaluated before starting construction activities to determine if any abatement measures would be required. If present, LBP would be removed in accordance with the applicable OSHA regulations. All LBP debris would be disposed of in accordance with the USEPA standards outlined under

TSCA. Abatement/removal of these materials as a result of implementing the Proposed Action would have a high likelihood of long-term, moderate beneficial impacts with small extent (any impacts would only occur in areas surrounding the renovated/demolished building).

Under the Proposed Action, the CESQG status of the Port Isabel SPC would not change and the SPC would be subject to the same RCRA requirements as under the No Action Alternative. Once the SPC returned to normal operations, the risk of contamination due to the release or spill of hazardous materials would return to current levels (i.e., a low probability of occurrence) because the facility would utilize the same inspection and safety procedures that are currently used.

The content of ASTs is not expected to change under the Preferred Alternative. Furthermore, the potential munition, PCB, and other hazardous waste in the former landfill and the scrap yard at the Port Isabel SPC is expected to remain undisturbed during and after the construction process.

Future site improvements could involve renovation of the existing laundry facility, replacement of the building's water heater, installation of emergency lighting, and replacement of the medicine dispensing modular building with a newer building. Prior to any demolition, construction, or renovation activities, a site investigation would be conducted to determine the presence of ACMs and LBPs. If present, these would be removed and disposed of by licensed contractors. All other materials used during construction and renovation, and any spills or releases of hazardous wastes generated during the process would be handled in accordance with applicable laws and regulations. These potential future site improvements under the Proposed Action would have a high likelihood of long-term, small, and moderate beneficial impacts due to the removal of hazardous waste such as ACMs and LBPs.

3.4.2.2 No Action Alternative

The No Action Alternative assumes that no demolition, construction, or renovation activities would occur at the Port Isabel SPC. Minor repairs would occur as needed and current maintenance and operation of the existing facilities would continue. In the absence of soil remediation at the firing ranges, the lead concentration in the berms would likely continue to increase. The potential for lead to leach into and pollute the surface and groundwater could increase, resulting in a high likelihood of long-term, major impact with a localized extent. Other ongoing impacts would be similar to those resulting from current operations, consistent with the existing hazardous material use and disposal practices.

3.5 UTILITIES AND INFRASTRUCTURE

The Port Isabel SPC contains 51 buildings and 22 structures onsite. The facilities include buildings used for ICE operations, and structures including an aboveground water storage tank, pistol/rifle ranges, fuel storage tanks, temporary sheds, fencing, lighting, trailers, a WWTP, and other structures. This section describes the existing potable water supply, sanitary sewer and wastewater treatment system, stormwater management, energy systems and supply, fencing/security features, and lighting at the site.

3.5.1 Affected Environment

The western half of the 364-acre Port Isabel SPC campus includes approximately 180 acres of undeveloped native shrubland. The remaining 184 acres, or the eastern half of the campus, includes the majority of SPC utility infrastructure. This section describes the utility infrastructure.

3.5.1.1 Potable Water Supply

The Port Isabel SPC currently receives its potable water from the East Rio Hondo Water Supply Corporation (ERHWSC). The ERHWSC provides water to rural areas within Cameron County and is authorized for water service by the TCEQ through Certificate of Convenience and Necessity No.11552. The ERHWSC's supply is provided from three surface water treatment plants: one in Arroyo City (0.675 million gallons per day) and two near San Benito (3.2 and 8.0 million gallons per day). In addition, a brackish groundwater reverse osmosis water treatment plant is located west of Combes, Texas (ERHWSC, No Date).

The Texas Commission on Environmental Quality Permit No. 3128A (Type Part 11.122) granted on October 24, 2017 authorizes ICE to divert and use not to exceed 268 acre-feet of Municipal Priority Water per year through the pumping facilities of Cameron County Water Control and Improvement District No. 6 from the Rio Grande, Rio Grande Basin for purposes at the Port Isabel Detention Center.

The potable water system is adequate and in good condition. The ERHWSC supplies water to the site via a single, 8-inch-diameter pipe and is pumped into an elevated 750,000-gallon water storage tank and distributed throughout the campus from that location. Elevated water tanks are regulated by the Texas Natural Resources Conservation Commission, which requires annual inspections. The distribution system is a looped polyvinyl chloride (PVC) pipeline with several shutoff valves. This design allows for isolating and shutting down certain parts of the system while leaving the rest of the system in operation. The facility has no other potable water booster pumps.

All fire hydrants and fire protection systems are fed from the potable water system. A fire pump, located in Building 117, supplies fire protection water to these areas at a higher pressure. There is no separate water storage tank for fire protection water.

3.5.1.2 Sanitary Sewer and Wastewater Treatment

The sanitary sewer system is in working condition and functions adequately but is at capacity (E&E, 2009). The system is a combination of gravity-fed and forced main piping that conveys all the sanitary sewage to the onsite WWTP via six onsite lift stations throughout the site (E&E, 2009):

- Lift Station #1 is located at the sewage treatment plant and handles all the waste from the facility going into the plant.
- Lift Station #2 (Building 75) is located north of the former Dormitory (Building 4) and handles all effluent north of the Kitchen/Food Service (Building 3).

- Lift Station #3 originally handled everything coming from the former Government Housing area; however, it is currently not in service.
- Lift Stations #4 and #5 are located along Ready Ammunition Road. They handle the waste from toilet facilities near the shooting ranges.
- A small lift station, #6, was also installed at the trailer near the Gatehouse (Building 62). This lift station ties into the forced main coming from Lift Station #3.

The WWTP consists of screening and grit removal, clarification, and two sludge drying beds. The WWTP operates under a current discharge permit. Each of the two sludge drying beds is capable of treating 80,000 gallons per day during dry weather conditions. The wastewater is treated to meet TCEQ standards. The treated effluent is discharged at the southeast corner of the site eventually draining toward the Gulf of Mexico.

All the existing sewer piping appears to be polyvinyl chloride. Several buildings have solids interceptors in the sewer pipes near the exit points from the buildings.

3.5.1.3 Stormwater Management

The site's stormwater drainage system is well-maintained, but may not be adequate for moderate or severe rainfall events. Typical site stormwater drainage is conveyed via sheet flow to collector swales and established roadside ditches. The collector swales are grassed and approximately three feet wide by one foot deep, yet vary in exact width, depth and slope throughout the site. However, in many cases, areas do not drain adequately due to the relatively flat topography associated with the low-lying coastal region, as evidenced during recent severe storm events. Large swales exist on site and can handle large volumes of stormwater during peak rain events; one is in the protected western half of the property and the other is near Building 200. There is no pretreatment of the stormwater prior to site discharge.

Onsite culverts generally range from 18 to 36 inches in diameter. Typically, for light road crossings, an 18-inch-diameter, reinforced concrete pipe (RCP) culvert is used. For secondary roads such as Calle Ruiz Road and Memorial Road, 24-inch-diameter culverts are used to increase flow rates. Parallel and perpendicular to Fourth Street in the detainee secure area, culverts are 18-inch-diameter RCP. The largest culvert, a 36-inch-diameter RCP, is located at the outfall for the WWTP and the swale system that flows out of the southeast corner of the site into the large ditch that runs parallel to the south property line.

A contributing factor to site drainage issues is flow coming from the adjacent airfield. Sheet flows from this large impervious area run onto the site, flooding areas near the Maintenance Building and overflowing drainage ditches in this area. Facility Maintenance must periodically regrade the ditches to maintain runoff flows. Staff have reported that site grounds become inundated with water when rainfall amounts exceed 0.5 inch.

Stormwater that collects within the eastern portion of the Port Isabel SPC is collected in a system of roadside ditches that drain to the southeast into a drainage canal located offsite and south of the SPC's southeastern corner. The offsite drainage canal drains into a mangrove swamp 1.5 miles to the east.

3.5.1.4 Energy Systems and Supply

Natural gas is supplied to the site by the Texas Gas Service Company from a gas main along Buena Vista Boulevard. The main gas meter and pressure regulator is near the intersection of the Entrance Road and Buena Vista Boulevard. The underground piping system is polyethylene and serves several emergency

generators and several of the buildings on site (E&E, 2009). The gas piping is owned and maintained by Texas Gas Service Company up to the meters; the natural gas system and supply are adequate for the Port Isabel SPC.

All electric service equipment appears to be in working order, providing an adequate system and supply during typical weather and environmental conditions. Medium-voltage electric power is provided to the site by one set of medium-voltage (12,470 volt) overhead distribution lines. The power lines are owned and maintained by AEP Central/CPL, which is the electric power distribution company. Agera Energy is the retail electricity provider for the site. In general, ownership of the electric power infrastructure on the campus transfers to the government at the load side of the electric power meters.

Emergency power is provided from diesel- and natural gas-powered stand-by generators that serve selected electrical loads and areas. The generators are run for short periods of time (less than 100 hours per year) for maintenance purposes. The generators are operable and are maintained regularly. There is no central emergency or stand-by power system for the overall facility. Instead, 17 stand-by generators are situated at varying locations throughout the site and are intended to serve local loads in those areas.

Onsite electrical generators are not fueled from a common source nor do they all use the same fuel. Some are natural gas-powered, while others are diesel fuel-powered. Natural gas generators are connected to the natural gas lines and require constant supply and gas pressure in order to operate. If the natural gas service is interrupted, the generators will not operate. Those with local fuel storage at the unit (for example, liquid petroleum gas, diesel or gasoline-powered equipment) are not dependent on the utility provider's ability to maintain supply and delivery during an emergency.

Portions of existing network copper wiring cabling that facilitates network and phone service is damaged and unusable due to corrosion from water damage caused by flooding from heavy rains and storms that occur in the Cameron County area. Cabling is buried underground in the site's system of conduits that lead to SPC facilities.

3.5.1.5 Fencing

The Port Isabel SPC is a secure site with a perimeter fence and additional layers of inner fencing, which define a secure zone around detainee dormitories, laundry, and kitchen/dining facilities. The site perimeter fencing is approximately 15,000 linear feet. This fence consists of a six-foot-high, wood post, and steel fabric wildlife fence north of the Entrance Road, from Buena Vista Boulevard to the Access Control Point; a six-foot-high, chain-link fence with three-strand barbed wire on the western boundary along Buena Vista Boulevard; a six-foot-high, steel fabric fence on the northern boundary, from Buena Vista Boulevard to Memorial Road; and a 10-foot-high, chain-link fence with six-strand barbed wire attached to a V-arm extension (E&E, 2009).

3.5.2 Environmental Consequences

The area of analysis for infrastructure and utilities is the Port Isabel SPC's existing system of utilities and infrastructure. The threshold of significance is whether implementation of the projects associated with the Proposed Action would exceed the capacity of existing utility systems, requiring expansion of utility-related infrastructure.

3.5.2.1 Proposed Action (Preferred Alternative)

Under the Preferred Alternative, numerous construction, demolition and rehabilitation activities would occur over the phased implementation period, including upgrades to utility services at the site (such as the WWTP and the site's system of conduits, fiber optics, and fire alarms). The proposed upgrades to the WWTP would allow for better sludge drying methods, more efficient disposal of dried sludge, fewer mechanical breakdowns and a more resilient wastewater treatment system overall; these upgrades could prevent unauthorized discharges of untreated sewage to the environment.

The construction of new facilities and expansion of existing facilities would likely increase the load on existing onsite infrastructure and utilities, including electricity, potable water, and sanitary sewer. However, potential impacts to existing utilities would be minor, long-term, small, and beneficial, as associated upgrades would improve onsite utility infrastructure. For example, LED lighting and water and energy-efficient appliances would be installed in the expanded/renovated kitchen facility, as would a new high-efficiency HVAC system. It is anticipated that utility efficiency and reliability would increase overall at the site with the installation of improved utility systems.

The newly constructed facilities at the Port Isabel SPC would require additional electrical, potable water and sanitary sewer hook-ups; however, this additional load would not exceed the capacity of the municipal infrastructure/utility systems. Moreover, proposed utility improvements have been designed and are necessary to meet current building codes. Impacts to utilities at the SPC would be long-term, beneficial, and localized.

3.5.2.2 No Action Alternative

Under the No Action Alternative, construction, demolition and renovation activities would not occur at the Port Isabel SPC. Therefore, there would be no increase in demand on existing infrastructure and utilities and no immediate adverse impacts to infrastructure and utilities. However, the design life of existing utilities would be exceeded without the proposed improvements, therefore increasing maintenance costs, the probability of breakdowns, and disruptions in service. Therefore, impacts to utilities at the SPC as a result of the No Action Alternative would be adverse, long-term, and localized with a high likelihood of occurrence.

3.6 CULTURAL AND HISTORIC RESOURCES

This section describes the current setting for cultural resources and evaluates the potential effects to cultural resources as a result of the proposed Project. Cultural resources, while not defined in statute or regulation, are generally historic properties as defined by the National Historic Preservation Act of 1966 (NHPA); cultural items as defined by the Native American Graves Protection and Repatriation Act of 1990 (NAGPRA); archaeological resources as defined by the Archaeological Resources Protection Act of 1979 (ARPA); sacred sites as defined by EO 13007, *Indian Sacred Sites*; and collections and associated records as defined by 36 CFR § 79. Cultural resources are associated with human use of an area. They may include archaeological sites, historic properties, or locations of ethnographic interest associated with past and present use of an area. A cultural resource can be physical remains, intangible traditional use areas, or an entire landscape encompassing past cultures or present, modern-day cultures. Physical remains of cultural resources are usually referred to as archaeological sites or historic properties.

Regulatory Setting

The following acts and regulations comprise the regulatory setting for cultural resources. The principal federal statutes governing the management of cultural resources on federal and tribal lands include the NHPA; NEPA; Archaeological and Historic Preservation Act of 1974; Antiquities Act of 1906; ARPA; NAGPRA; EO 11593; Historic Sites Act of 1935; and the American Indian Religious Freedom Act of 1978. State and local regulations also apply.

National Historic Preservation Act of 1966

The NHPA, as amended, sets forth national policy and procedures regarding historic properties, defined as districts, sites, buildings, structures, and objects included in or eligible for the National Register of Historic Places (NRHP). Section 106 of the NHPA requires federal agencies to consider the effects of their activities on such properties. Implementing regulations for Section 106 at 36 CFR § 800 (Protection of Historic Properties) requires the responsible federal agency, in consultation with the State Historic Preservation Officer (SHPO) or Tribal Historic Preservation Officer (THPO), to determine the level of effort to identify historically significant cultural resources in the area of potential effect (APE) of the Preferred Alternative. This usually requires a review of existing records to determine the presence of properties that are listed on the NRHP within the APE. An archaeological survey of the APE to identify potential historic properties that have not been previously identified is only conducted if cultural resources are likely to occur on the site. The responsible federal agency must then consider the effects of the undertaking (or proposed project) upon properties listed on the NRHP or eligible for listing on the register. The federal agency determines an undertaking's effects to cultural resources in consultation with the appropriate SHPO and/or THPO. The process established in the implementing regulations helps ensure that the presence of historic properties, and possible effects to these properties, are considered as early as possible in the federal project planning process.

National Environmental Policy Act of 1969

In accordance with 36 CFR § 800, federal agencies are encouraged to coordinate studies and documents prepared under Section 106 with those done under NEPA. Section 800.8(a) of the regulations provides guidance on how NEPA and Section 106 processes can be coordinated.

Archaeological and Historic Preservation Act of 1974

The purpose of the Federal Archaeological and Historic Preservation Act (54 U.S.C 312501-312508) is to preserve significant historical and archeological data which might otherwise be irreparably lost or destroyed as a result of a number of incidents or developments, including federal construction projects.

These data may include sites, buildings, objects and antiquities of national significance. Protection of these resources may include surveys and recovery efforts when deemed appropriate.

Antiquities Act of 1906 and Archeological Resources Protection Act of 1979

The Antiquities Act of 1906 (54 U.S.C 320301-320303) and the Archeological Resources Protection Act (16 U.S.C. 470aa-mm) prohibit the unauthorized excavation, removal, damage, alteration, or defacement of archeological resources or the attempt of such acts on federal lands. ARPA provides legal penalties and establishes a permitting system to authorize excavation or removal of archaeological resources by qualified applicants.

Native American Graves Protection and Repatriation Act of 1990

The Federal Native American Graves Protection and Repatriation Act (25 U.S.C. 3001 et seq.) provides for ownership and control of Native American cultural items which are excavated or discovered on federal or tribal lands after November 16, 1990. The Act prioritizes recipients of such items and defines conditions under which such items may be discovered, studied or removed.

Executive Order 11593

EO 11593, *Protection and Enhancement of the Cultural Environment*, was signed in 1971 to commit the federal government to “preserving, restoring and maintaining the historic and cultural environment of the Nation.” It directs federal agencies to preserve and protect cultural resources as trustees and in such a way as to benefit current and future populations, to contribute to the preservation and protection of non-federally owned cultural resources and to nominate all eligible government properties to the NRHP.

Texas Local Government Code, Chapter 318

Texas Local Government Code, Chapter 318, provides for the establishment and operation of County Historical Commissions by Commissioner’s courts for the respective county. Each commission should institute and carry out a continuing survey of the county to determine the existence of historic buildings and other historical and archeological sites, private archeological collections, important endangered properties, or other historical features within the county, and should report the data collected to the Commissioner’s court and the Texas Historical Commission. The commission should develop and maintain its inventory of surveyed individual properties and districts in accordance with standards established by the Texas Historical Commission.

3.6.1 Affected Environment

The APE for cultural resources is the Port Isabel SPC. As described in Section 1.3, the Port Isabel SPC site is part of a former military base used first in the 1940s by the U.S. Army Air Corps as a gunnery training facility and range. The U.S. Navy and U.S. Air Force then used the facility in the 1950s for defense and training activities. The undeveloped area of brush vegetation on the western half of the Port Isabel SPC was historically (mid-1900s) used as an open burn/open detonation area, and includes a former dynamite testing area, as well as a former ammunition area. Portions of the property are contained in the Formerly Used Defense Site (FUDS) program, (identification number K06TX102003). According to the 1997 Programmatic EA completed for the SPC, in 1943, the USACE Galveston District (formerly known as the Galveston District CE) acquired approximately 6.4 acres in fee for a gasoline pumping station at the SPC. The acreage included 9,000 feet of roadway for a gas line, which ran north along Buena Vista Road from the pumping station to the Air Force’s Laguna Madre Flying School. Fuel was apparently brought in by rail and off-loaded at the pump station. Gas pipelines in use at the facility were replaced with new PVC lines by Southern Union Gas Company.

In 1962, the site was closed as a military base due to realignment and base closures. The former INS and Border Patrol received a portion of the property for use as a Border Patrol Training Academy and Detention Center. The site's hangar and airfield runways were assigned to Cameron County. In 1962 and 1963, INS completed several major building renovations at the site. A pipeline easement and right-of-way was issued to the Rio Grande Valley Gas Company in June 1963. In 1977, the Training Academy was relocated to the Federal Law Enforcement Training Center in Glynco, Georgia and many buildings were abandoned. The INS Detention Center remained at the site. In 1981, several buildings and major utilities at the site underwent renovations, and the Border Patrol Detention Center expanded to the center of the eastern side of the parcel. In 1997, the USACE managed the construction of four detainee dormitories on site. In 2007, the facility was again updated and an administration building was added, with an attached processing and medical center. In 2008, a 750,000-gallon water tower was constructed at the site and new water lines were installed. Since 2009, minor improvements have been made, including roof repair, replacement of HVAC equipment, and updating security systems on an as-needed basis. In 2018, a facility-wide lighting and water fixture upgrade occurred to improve energy and water efficiency.

The Texas Historical Sites Atlas, planning documents for the City of Los Fresnos, the Soil Survey of Cameron County, Texas, (Williams et al., 1977) and other NEPA (notably the South Padre Island 2nd Access Project Draft Environmental Impact Statement) documents were reviewed to determine the likelihood of presence of cultural resources in the vicinity of the Port Isabel SPC.

3.6.2 Environmental Consequences

ICE considered the PIDC and its immediate boundaries as the area of potential effect for assessing potential effects to cultural and historic resources. ICE's evaluation resulted in ICE determining that the preferred alternative would not affect historic properties. ICE initiated coordination with the SHPO via a letter dated August 21, 2018. Following a formal consultation process, the SHPO concurred with ICE's determination of "no historic properties affected" through a letter dated November 5, 2018. This determination is included in Appendix C.

Federally recognized Tribes/Nations were also notified of the proposed project. Comments were requested in August of 2018; however, no comments have been received.

3.6.2.1 Proposed Action (Preferred Alternative)

The Proposed Action is not anticipated to have any effects on cultural resources because none were identified as being present at the Port Isabel SPC. Impacts to archaeological resources are not anticipated to occur as a result of the Preferred Alternative.

Most actions proposed under the Preferred Alternative do not involve new ground disturbance; these actions would primarily involve replacing infrastructure in previously disturbed footprints or demolishing existing infrastructure down to the slabs on which they are situated. These areas have been previously impacted by construction and maintenance activities, and as such the potential for intact, significant archaeological sites is considered low as they would have been destroyed or heavily damaged. Such areas typically do not require archaeological surveys due to their disturbed nature. However, if cultural materials are discovered during site grading or paving associated with construction of the SHU, warehouse, or kitchen/dining building expansion, all earth-moving activity within and around the immediate discovery area would be avoided until a qualified archaeologist could assess the nature and significance of the find.

3.6.2.2 No Action Alternative

Under the No Action Alternative, no construction, renovation or demolition activities would take place. The No Action Alternative is not anticipated to have any effects on cultural resources.

3.7 AIR QUALITY

Air quality is the measure of the atmospheric concentration of defined pollutants in a specific area. Air quality is affected by pollutant emission sources, as well as the movement of pollutants in the air via wind and other weather patterns. An air pollutant is any substance in the air that can cause harm to humans or the environment. Pollutants may be natural or human-made and may take the form of solid particles, liquid droplets, or gases. Natural sources of air pollution include smoke from wildfires, dust, and wind erosion. Human-made sources of air pollution include emissions from vehicles, industrial facilities and general uses of fossil fuels; dust from unpaved roads, agriculture, or construction sites; and smoke from human-caused fires.

3.7.1 Affected Environment

Because air quality is measured and regulated on a regional level, the air quality analysis in this EA utilizes air quality data from the Brownsville-Laredo Air Quality Control Region (AQCR) (40 CFR § 81.135). The Brownsville-Laredo AQCR encompasses seven counties in southern Texas and includes Cameron County, the area where the Proposed Action (Preferred Alternative) would occur.

USEPA Region 6 and the TCEQ regulate air quality in Texas. The CAA (42 United States Code [USC] 7401-7671q), as amended, gives the USEPA the responsibility to establish the primary and secondary National Ambient Air Quality Standards (NAAQS) (40 CFR § 50) that set acceptable concentration levels for six criteria pollutants, compounds that cause or contribute to air pollution and which could endanger public health and the environment. The six criteria pollutants are: particulate matter (both fine particulate matter [PM₁₀] and very fine particulate matter [PM_{2.5}]), sulfur dioxide (SO₂), carbon monoxide (CO), nitrogen dioxide (NO₂), ozone (O₃) and lead (Pb)³. O₃ is a strong photochemical oxidant that is formed when NO₂ reacts with volatile organic compounds (VOCs) (also referred to as hydrocarbons) and oxygen in the presence of sunlight. O₃ is considered a secondary pollutant because it is not directly emitted from pollution sources but is formed in the ambient air.

Short-term standards (one-, eight-, and 24-hour periods) have been established for criteria pollutants that contribute to acute health effects, while long-term standards (annual averages) have been established for pollutants that contribute to chronic health effects. Each state has the authority to adopt standards stricter than those established under the federal program; however, Texas has accepted the federal standards. AQCRs that exceed the NAAQS are designated as *nonattainment* areas, and those in accordance with the standards are designated as *attainment* areas. AQCRs that have been redesignated from *nonattainment* to *attainment* are called maintenance areas. The USEPA has designated Cameron County (part of the Brownsville-Laredo AQCR) as an *attainment* area for all criteria pollutants (USEPA, 2018a). Because the project is located in an *attainment* area, the General Conformity Rule⁴ requirements do not apply. The General Conformity Rule states that if a project would result in a total net increase in direct and indirect emissions of nonattainment or maintenance pollutants that are less than the applicable *de minimis* (i.e., negligible) thresholds established in 40 CFR § 93.153(b), detailed conformity analyses are not required pursuant to 40 CFR § 93.153(c). However, for purposes of analysis, the project emissions

³ Lead is not considered further in this analysis because none of the project activities have the potential to generate air lead emissions.

⁴ Established under the CAA, the General Conformity Rule ensures that the actions taken by federal agencies do not interfere with a state's plans to attain and maintain the NAAQS. According to the rule, if a project takes place in an area that is in *attainment*, then the general conformity requirements do not apply to the project.

were estimated and compared to the *de minimis* thresholds. This comparison is presented in Section 3.7.2.1.

The USEPA monitors levels of criteria pollutants at representative sites in each region throughout the U.S. For purposes of analysis, air monitoring data for nearby counties were used to define the existing air quality at and around the SPC. Table 3.7-1 shows the monitored concentrations, the NAAQS, and the air monitor location for each criteria pollutant; air monitoring data for the SO₂ 3-hour averaging time were unavailable. As shown in Table 3.7-1, none of the measured criteria pollutant concentrations exceeded the NAAQS. These data are consistent with the USEPA’s list of counties currently designated as nonattainment or maintenance areas, which shows Cameron County as an *attainment* area for all criteria pollutants (USEPA, 2018a).

Table 3.7-1. National Ambient Air Quality Standards and 2017 Measured Criteria Pollutant Concentrations

Averaging Time	NAAQS	Monitored Data	Monitor Location ^a
CO			
1-hour ^b (ppm)	35	2.4	Brownsville, TX
8-hour ^b (ppm)	9	1.6	Brownsville, TX
NO₂			
1-hour (ppb)	100	58	San Antonio, TX
Annual arithmetic mean (ppb)	53	6.29	San Antonio, TX
O₃			
8-hour (ppm) ^c	0.070	0.066	Harlingen, TX
SO₂			
1-hour ^b (ppb)	75	13.6	Corpus Christi, TX
3-hour ^b (ppm)	0.5	N/A	N/A
PM_{2.5}			
24-hour ^d (µg/m ³)	35	27.5	Brownsville, TX
Annual arithmetic mean ^e (µg/m ³)	12	9.4	Brownsville, TX
PM₁₀			
24-hour ^b (µg/m ³)	150	69	Edinburg, TX
Pb			
3-month average (µg/m ³)	0.15	0	Brownsville, TX

Sources: 40 CFR § 50.1-50.12; USEPA, 2017b; USEPA, 2018b.

Note: ppb = parts per billion; ppm = parts per million; µg/m³ = micrograms per cubic meter; CO = carbon monoxide; N/A = data not available; NAAQS = National Ambient Air Quality Standards; NO₂ = nitrogen dioxide; O₃ = ozone; Pb = lead; PM_{2.5} = particulate matter less than 2.5 microns in diameter; PM₁₀ = particulate matter less than 10 microns in diameter; SO₂ = sulfur dioxide; TX = Texas.

^a Because there are no air monitoring stations at the SPC, data from the closest available air monitoring stations were used. The same location was not used for each criteria pollutant due to data availability.

^b Not to be exceeded more than once per year.

Averaging Time	NAAQS	Monitored Data	Monitor Location ^a
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^c The 3-year average of the fourth highest daily maximum 8-hour average O3 concentrations.

^d The 3-year average of the 98th percentile of 24-hour concentrations at each population-oriented monitor must not exceed 35 µg/m3.

^e The 3-year average of the weighted annual mean PM2.5 concentrations must not exceed 12.0 µg/m3.

3.7.2 Environmental Consequences

This section discusses the air regulations that could apply to the proposed project and the air quality impacts that would occur under each alternative. The short- and long-term air quality impacts of the Proposed Action are discussed separately to provide a more detailed analysis.

Regulatory Review

The CAA, as amended in 1990, mandates that states develop State Implementation Plans (SIPs) that explain how the states will comply with the CAA and achieve and maintain *attainment* of the NAAQS. The Texas SIP⁵ applies to industrial sources, commercial facilities and residential development activities. Regulation occurs primarily through a process of reviewing engineering documents and other technical information, applying emission standards and regulations in the issuance of permits, performing field inspections, and assisting industries in determining their compliance status.

TCEQ has the authority to issue permits for the construction and operation of new or modified stationary source air emissions in Texas. TCEQ air permits are required for any facility that will emit or currently emits regulated pollutants and must comply with the following regulations of the CAA: New Source Review, Prevention of Significant Deterioration (PSD), Title V Permitting, National Emission Standards for Hazardous Air Pollutants (NESHAP), and New Source Performance Standards (NSPS). An overview of the applicability of the CAA air regulations to the project is shown in Table 3.7-2.

Table 3.7-2. Clean Air Act Regulatory Review for the Proposed Action

CAA Regulation	Description of the Regulation	Applicability to the Preferred Alternative
New Source Review	New Source Review permitting protects air quality when factories, industrial boilers and power plants are built or modified.	New Source Review would be required for the new emergency generator installed at the new warehouse.
PSD	PSD applies to new major sources or modifications at existing sources of air pollutants where the area the source is located is in <i>attainment</i> or unclassifiable.	PSD review would be required for the new emergency generator installed at the new warehouse.

⁵ The Texas SIP is revised as needed to comply with new federal or state requirements when new data improves modeling techniques, when a specific area's *attainment* status changes, or when an area fails to reach *attainment*.

CAA Regulation	Description of the Regulation	Applicability to the Preferred Alternative
Title V permitting requirements	A Title V Permit requires sources of air pollutants to obtain and operate in compliance with an operating permit. This permit is required if a source has actual or potential emissions greater than or equal to 100 tons per year.	A Title V Permit would not be required because any emission sources would be below the 100 tons per year threshold.
NESHAP	NESHAP are stationary source standards for HAPs. HAPs are those pollutants that are known or suspected to cause cancer or other serious health effects.	The use of Maximum Available Control Technology would not be required because the potential HAP emissions would not exceed NESHAP thresholds under the Proposed Action.
NSPS	NSPS are technology-based emission standards which apply to new, modified, and reconstructed facilities in specific source categories such as manufacturers of glass, cement, rubber tires and wool fiberglass.	The project would be exempt from NSPS permitting requirements because the Proposed Action would not involve construction or operation of any of these types of facilities.

Source: USEPA, 2017c.

In addition to the CAA regulations listed in Table 3.7-2, there are more specific Texas state regulations that apply to activities that are likely to occur during construction. These regulations are outlined in Texas Administrative Code Title 30, Part 1. They include the following:

- Control of Air Pollution from Visible Emissions and Particulate Matter (Title 30.1.111);
- Control of Air Pollution from Sulfur Compounds (Title 30.1.112);
- Control of Air Pollution from Motor Vehicles (Title 30.1.114); and
- Control of Air Pollution by Permits for New Construction or Modification (Title 30.1.116).

Fugitive Dust Control

Construction activities at the SPC would generate fugitive dust (non-toxic particulate matter) emissions. Emissions from open areas (e.g., a construction site) require reasonable precautions to prevent particulate matter from becoming airborne. Such precautions can include:

- Using water for dust control when grading roads or clearing land;
- Covering open equipment when conveying or transporting material likely to create objectionable air pollution when airborne; and
- Promptly removing spilled or tracked dirt or other materials from paved streets.

3.7.2.1 Proposed Action (Preferred Alternative)

As explained in Section 3.7.1, USEPA’s General Conformity Rule under the CAA ensures that the actions taken by federal agencies do not interfere with a state’s plans to attain and maintain the NAAQS (40 CFR § 93.153(b)). Because the Brownsville-Laredo AQCR is in attainment for all criteria pollutants, the General Conformity Rule requirements do not apply. However, for purposes of analysis, all direct and indirect

emissions of PM₁₀, PM_{2.5}, SO₂, CO, nitrogen oxides (NO_x), and O₃⁶ were estimated for the construction phase of the Proposed Action and compared to the General Conformity Rule *de minimis* threshold rates to determine whether implementation of the Preferred Alternative would impact air quality in the region. Emissions of lead were not analyzed because no project activity would result in the generation of lead emissions.

Construction and demolition emissions were estimated for on-road and nonroad vehicles. The emissions from on-road vehicles such as privately-owned vehicles (POVs) were estimated using industry standard emission rates (Argonne, 2013; USEPA, 2009). Emission rates for nonroad vehicles such as excavators, graders, backhoes and bulldozers were estimated using USEPA’s MOVES 2014a model (USEPA, 2015). For purposes of analysis and to provide a conservative estimate of potential air emissions, it was assumed that all construction activities would occur within one year, all nonroad construction equipment would be operated full-time (i.e., eight hours per day and five days per week) and all on-road vehicles would be traveling 50 miles per day. The results of the conformity analysis are presented in Table 3.7-3. As shown in Table 3.7-3, the total annual direct and indirect emissions associated with the construction/demolition phase of the Proposed Action would not exceed the *de minimis* threshold rate for any of the criteria pollutants analyzed. Overall, the construction/demolition activities would cause short-term, minor adverse impacts with a medium extent and high likelihood on air quality and could affect individuals in close proximity to the SPC. These impacts would occur during construction and demolition activities and would end once these activities are completed.

Table 3.7-3 Proposed Action Construction Annual Emissions Compared to General Conformity Rule Thresholds

Equipment	Tons of CO	Tons of NO ₂	Tons of SO ₂	Tons of PM ₁₀ ^a	Tons of PM _{2.5} ^a
Nonroad Vehicles					
Excavator (diesel)	9.71 × 10 ⁻²	0.180	2.92 × 10 ⁻⁴	1.41 × 10 ⁻²	1.37 × 10 ⁻²
Bulldozer (diesel)	4.86 × 10 ⁻²	9.01 × 10 ⁻²	1.46 × 10 ⁻⁴	7.05 × 10 ⁻³	6.84 × 10 ⁻³
Dump truck/concrete truck (diesel)	9.71 × 10 ⁻²	0.180	2.92 × 10 ⁻⁴	1.41 × 10 ⁻²	1.37 × 10 ⁻²
Grader (diesel)	4.86 × 10 ⁻²	9.01 × 10 ⁻²	1.46 × 10 ⁻⁴	7.05 × 10 ⁻³	6.84 × 10 ⁻³
Rollers, compactor (diesel)	9.71 × 10 ⁻²	0.180	2.92 × 10 ⁻⁴	1.41 × 10 ⁻²	1.37 × 10 ⁻²
Paving equipment (diesel)	4.86 × 10 ⁻²	9.01 × 10 ⁻²	1.46 × 10 ⁻⁴	7.05 × 10 ⁻³	6.84 × 10 ⁻³
Generator (gasoline)	0.699	5.94 × 10 ⁻³	1.85 × 10 ⁻⁵	5.33 × 10 ⁻³	4.90 × 10 ⁻³
Air compressor (gasoline)	0.466	3.96 × 10 ⁻³	1.23 × 10 ⁻³	3.55 × 10 ⁻³	3.27 × 10 ⁻³
On-Road Vehicles					
Personal vehicles	1.02	4.29 × 10 ⁻²	1.50 × 10 ⁻³	2.72 × 10 ⁻³	2.72 × 10 ⁻³
Total (tons per year)	2.62	0.863	2.85 × 10⁻³	7.51 × 10⁻²	7.25 × 10⁻²
<i>De minimis</i> threshold (tons per year)	100	100	100	100	100

⁶ Ozone is a secondary pollutant (i.e., it is created when NO₂ reacts with VOCs and oxygen in the presence of sunlight. Therefore, the emissions of the precursor pollutant (i.e., NO₂) were used to calculate the O₃ emissions that would occur under the Proposed Action.

Equipment	Tons of CO	Tons of NO ₂	Tons of SO ₂	Tons of PM ₁₀ ^a	Tons of PM _{2.5} ^a
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Source: USEPA, 2017d.

Note: CO = carbon monoxide; NO₂ = nitrogen dioxide; PM_{2.5} = particulate matter with an aerodynamic diameter less than or equal to 2.5 micrometers; PM₁₀ = particulate matter with an aerodynamic diameter less than or equal to 10 micrometers; SO₂ = sulfur dioxide.

^a Although particulate matter (both PM₁₀ and PM_{2.5}) would be generated by construction vehicles moving around the project area, the potential for noticeable emissions of particulate matter would be low due to the small area of disturbance (approximately 3 acres), and any emissions generated would not exceed the 100 tons per year *de minimis* thresholds.

Once construction activities are completed, operations at the SPC would return to their current levels. However, due to the increased fuel/energy efficiency of the appliances installed during construction (e.g., dishwashers, HVAC units, ovens and dryers), the overall emissions of criteria pollutants generated directly by the SPC and indirectly by the power generation facilities would decrease slightly. Overall, the Implementation of the Proposed Action would cause long-term, minor beneficial impacts with a medium extent and high likelihood on air quality.

Mitigation of Air Quality Impacts from Construction

If the Proposed Action is implemented, ICE, its contractors, and all responsible parties could implement industry standard mitigation measures (e.g., soil watering) to reduce PM₁₀ emissions and fugitive dust during construction. If implemented, the mitigation measures would be designed to reduce air quality impacts associated with emissions of PM₁₀ and fugitive dust and specifically to minimize potential exposure of individuals near the project site. However, due to the limited amount of construction/demolition activities that would occur under the Proposed Action, the fact that any air quality impacts would be minor if the mitigation measures were not implemented, and because the Port Isabel SPC is located in a PM₁₀ attainment area, these mitigation measures would not be required.

3.7.2.2 No Action Alternative

No new impacts on air quality at the SPC would occur under the No Action Alternative because none of the proposed actions would occur.

3.8 CLIMATE CHANGE

It is well documented that the Earth's climate has fluctuated throughout its history from entirely natural causes. However, recent scientific evidence indicates a correlation between increasing global temperatures over the past century and the worldwide increase in anthropogenic (human) greenhouse gas (GHG) emissions (IPCC, 2013). Climate change associated with global warming is predicted to produce negative environmental, economic, and social consequences across the globe in the coming years. More specifically, any GHG emissions from the Proposed Action would directly contribute to an increase in global GHG atmospheric concentrations and average global temperatures, which indirectly causes numerous environmental and social effects. These global impacts would be manifested as impacts on resources and ecosystems in Texas. For purposes of analysis, the incremental changes in GHG emissions discussed in this EA imply potential impacts on global climate change.

3.8.1 Affected Environment

GHGs are gases that trap heat in the atmosphere by absorbing outgoing infrared radiation. GHG emissions occur from both natural processes and human activities. Water vapor is the most important and abundant GHG in the atmosphere. However, human activities produce only a small amount of the total atmospheric water vapor. The most common GHGs emitted from natural processes and human activities include carbon dioxide (CO₂), methane (CH₄), and nitrous oxide (N₂O). The main source of GHGs from human activities is the combustion of fossil fuels, such as oil, coal and natural gas. Other examples of GHGs created and emitted primarily through human activities include fluorinated gases (e.g., perfluorocarbons) and sulfur hexafluoride. The main sources of these man-made GHGs are refrigerants and electrical transformers.

Numerous studies document the recent trend of rising atmospheric concentrations of CO₂. The longest continuous record of CO₂ monitoring extends back to 1958 (Keeling, 1960; Scripps, 2017). These data show that atmospheric CO₂ levels have risen an average of 1.5 parts per million per year over the last 56 years (NOAA, 2017). As of 2014, CO₂ levels are about 30 percent higher than the highest levels estimated for the 800,000 years preceding the industrial revolution, as determined from CO₂ concentrations analyzed from air bubbles in Antarctic ice core samples (USGCRP, 2014). Recent observed changes due to climate change include rising temperatures, shrinking glaciers and sea ice, thawing permafrost, a lengthened growing season, and shifts in plant and animal ranges. International and national organizations independently confirm these findings (IPCC, 2013; USGCRP, 2014).

Each GHG is assigned a global warming potential (GWP) by the USEPA (USEPA, 2018c). The GWP is the ability of a gas or aerosol to trap heat in the atmosphere. The GWP rating system is standardized to CO₂, which is given a value of one. For example, CH₄ has a GWP of 28, which means that it has a global warming effect 28 times greater than CO₂ on an equal-mass basis (IPCC, 2013). To simplify GHG analyses, total GHG emissions from a source are often expressed as a CO₂ equivalent, which is calculated by multiplying the emissions of each GHG by its GWP and adding the results together to produce a single, combined emission rate representing all GHGs. While CH₄ and N₂O have much higher GWPs than CO₂, CO₂ is emitted in such large quantities that it is the predominant contributor to global CO₂ equivalent emissions from both natural processes and human activities.

3.8.2 Environmental Consequences

This section discusses the GHG emissions that would occur under each alternative. The short- and long-term impacts of the Proposed Action are discussed separately to provide a more detailed analysis.

3.8.2.1 Proposed Action (Preferred Alternative)

Short-term GHG emissions associated with the Preferred Alternative would primarily result from construction and demolition of facilities and power use. Using the GWP rating system described in Section 3.8.1 and USEPA emission factors, the GHG emissions generated during the construction phase of the Proposed Action were calculated (see Table 3.8-1 (USEPA, 2014)). As shown in Table 3.8-1, the total amount of GHG emissions that would occur from all project activities would account for approximately 4.71×10^{-4} percent of Texas’ 2015 GHG emissions – a miniscule fraction (USEIA, 2018). Overall, the GHG emissions generated during construction and demolition activities would represent an incremental, but overall negligible, contribution to climate change.

Table 3.8-1. Carbon Dioxide Equivalent Emissions During Construction and Demolition Activities

Comparison of GHG Emissions	Tons of CO _{2e}
Total GHGs – construction and demolition	2,950
Texas 2015 GHG emissions	625,800,000
Proposed Action’s Percentage of Texas’ 2015 emissions	4.71×10^{-4}

Source: USEIA, 2018.

Note: CO_{2e} = carbon dioxide equivalent; GHG = greenhouse gas.

Once construction activities are completed, operations at the SPC would return to their current levels. However, due to the increased fuel/energy efficiency of the appliances installed during construction (e.g., dishwashers, ovens, HVAC units and dryers), the overall emissions of GHGs generated directly by the SPC and indirectly by the power generation facilities would decrease slightly. However, due to the relatively small amount of GHGs generated at the facility, overall, the operation of the SPC would have a negligible impact on climate change.

3.8.2.2 No Action Alternative

No new impacts on climate change would occur under the No Action Alternative because none of the proposed actions would occur.

3.9 NOISE

This section discusses the affected environment for noise and the noise impact of construction, renovation and demolition activities on the Port Isabel SPC and surrounding areas.

3.9.1 Affected Environment

Noise can be transmitted or continuous, steady or impulsive, and can involve any number of sources and frequencies. It can be easily identifiable or generally nondescript. Although human response to noise varies, measurements can be calculated with instruments that record instantaneous sound levels in decibels (dB). The dB is a logarithmic unit that expresses the ratio of a sound pressure level to a standard reference level. A-weighted decibels (dBA) characterize sound levels that can be sensed by the human ear. "A-weighted" denotes the adjustment of the frequency range to what the average human ear can sense when experiencing an audible event. The threshold of audibility is generally within the range of 10 to 25 dBA for normal hearing. The threshold of pain normally occurs in the region of 135 dBA (USEPA, 1981). Table 3.9-1 compares common sounds and shows how they rank in terms of their effects on humans.

Tables 3.9-1. Sound Levels and Human Response

Noise Level (dBA)	Common Sounds	Effect
30	Soft whisper	Very quiet
50	Light auto traffic	Quiet
60	Air conditioning unit	Intrusive
70	Noisy restaurant or freeway traffic	Telephone use difficult
80	Alarm clock	Annoying
90	Heavy Truck or city traffic	Very annoying Hearing damage (8 hours)
120	Jet takeoff or auto horn	Maximum vocal effort
140	Carrier deck jet operation	Painfully loud

Source: USEPA, 1981.

Section Four of the Noise Control Act of 1972, as amended, directs all federal agencies to carry out "to the fullest extent within their authority" programs within their jurisdictions that further the national policy of promoting an environment free from noise that jeopardizes health and welfare. Federal, state, and local agencies enforce the standards and requirements of this Act to regulate noise at facilities such as the Port Isabel SPC. In 1974, the USEPA provided information suggesting continuous and long-term noise levels in excess of 65 dBA are normally unacceptable for noise-sensitive land uses such as residences, schools, churches, and hospitals (USEPA, 1974). For non-exempt activities, City of Los Fresnos Ordinance 420. § 2, 8-9-2011 prohibits the production of sound exceeding 60 dBA between the hours of 8:00 a.m. to 10:00 p.m. on Sunday through Thursday, between 8:00 a.m. to 11:00 p.m. on Friday and Saturday, and 40 dBA between the hours of 10:01 p.m. to 7:59 a.m. on Sunday through Thursday and 11:01 p.m. to 7:59 a.m. on Friday and Saturday. However, Ordinance 420. § 6, 8-9-2011 states that the provisions listed under 420. § 2, 8-9-2011 do not apply to sound produced by construction operations including demolition, repair, drilling, excavation, and alteration during the hours of 7:00 a.m. to 8:00 p.m.

Existing sources of noise at Port Isabel SPC include vehicular noise, pistol and rifle firing noise from the firing ranges and noise from the nearby airport. Vehicular noise comes from onsite traffic and the fleet maintenance area, and decreases with increasing distance. The noise associated with the firing ranges is loud; however, it does not disturb the SPC staff and the detainees due to the physical obstructions (i.e., earthen berms) that block the sounds generated at the ranges and because of the distance between the ranges and areas where staff and detainees are located. The noise associated with the Cameron County Airport, located less than 200 feet from the facility, occurs only sporadically, coinciding with flights taking off and landing.

3.9.2 Environmental Consequences

This section discusses the potential impact of construction, renovation and demolition activities on the noise levels of the detention center.

3.9.2.1 Proposed Action (Preferred Alternative)

The preferred alternative would involve the construction of a new 9,600- sf SHU, a 16,800-sf warehouse, and a 5,000-sf expansion of the existing kitchen/dining hall building. Building 100, old staff housing, and the shoot house would be demolished. Construction activities typically generate noise levels of 80 to 90 dBA at a distance of 50 feet (see Table 3.9-2), whereas demolition activities can generate noise levels greater than 90 dBA at a distance of 50 feet (USDOT, 2017). With multiple items of equipment operating concurrently, noise levels can be relatively high during daytime periods at locations within several hundred feet of active construction sites. The zone of relatively high construction noise typically extends to distances of 400 to 800 feet from the site of major equipment operations. It is assumed that construction activities would only occur during normal weekday business hours; therefore, there would be no noise impacts from construction during the evening or night time periods. Because some of the proposed construction locations are in close proximity to the current detainee dormitories, administrative building and the kitchen/dining building, individuals in these structures would be negatively impacted by construction noise during the day. The noise from construction activities could be carried to the adjacent Port Isabel-Cameron County Airport, becoming a source of disturbance to the airport staff and passengers. As per the sound effects established in scientific literature, it is projected that construction and demolition activities under the Proposed Action would result in short-term, moderate, and adverse impacts with a high likelihood and small extent.

Table 3.9-2. Noise Levels Associated with Outdoor Construction

Construction Phase	Average Sound Level (dB)
Ground clearing	84
Excavation, grading	89
Foundations	78
Structural	85
Finishing	89

Source: USEPA, 1974.

To reduce the noise impacts to the surrounding area, contractors would utilize and properly maintain construction equipment mufflers. Noise effects on construction personnel would be limited with personnel wearing adequate personal hearing protection in compliance with federal health and safety regulations. All construction would be conducted in compliance with the city noise ordinances.

A new natural gas-powered emergency generator would be installed at the proposed 16,800-square foot warehouse. Noise levels from the emergency generator are assumed to range from 74 dBA to 91 dBA at 23 feet, depending on the level of sound attenuation selected (Cummins, 2016). Because the generator would only be used in emergency situations and during intermittent tests throughout the year, the impacts would be long-term, adverse, and minor with a high likelihood and limited extent.

3.9.2.2 No Action Alternative

The No Action Alternative assumes that no construction, renovations, or demolition would occur at the Port Isabel SPC. Minor repairs would occur as needed and maintenance and operation of the existing facilities would continue. Thus, the noise levels at the facility would remain the same as the current levels, i.e., no disturbance or interference would occur with the hearing of the SPC staff and detainees.

3.10 HUMAN HEALTH AND SAFETY

Construction site safety is largely a matter of adherence to regulatory requirements outlined by OSHA. 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 like air, noise, and spilled pollutants (29 CFR § 1910).

3.10.1 Affected Environment

Under the current SPC operations, sources of human health and safety risk include lead and noise exposure at the firing ranges; lead in the firing range berms could leach into and contaminate soil and groundwater resources, potentially resulting in human exposure; munition waste contamination; exposure to asbestos and LBP; and soil contamination from hazardous materials/waste spills.

Lead and Noise Exposure at Firing Ranges

Exposure to lead mainly occurs by inhaling lead-contaminated dust and fumes, or by accidental ingestion via contaminated hands, clothing, and surfaces. Various ailments, such as neurological effects, anemia, gastrointestinal effects, and kidney disease are associated with lead exposure. OSHA's lead standards for construction (29 CFR § 1926.62) establish a permissible exposure limit (PEL) of 50 $\mu\text{g}/\text{m}^3$ of lead over an eight-hour time-weighted-average (TWA). The lead standards also set an action level of 30 $\mu\text{g}/\text{m}^3$ for the construction industry, at which point an employer must begin specific compliance activities, such as making initial medical surveillance available to employees exposed to lead on the job, free of charge (CDCP, 2017).

A baseline industrial hygiene survey was conducted at the outdoor pistol and rifle ranges in May of 2017. Currently, there is no need to implement OSHA requirements for medical surveillance for lead and semiannual exposure monitoring because personal exposure monitoring for shooters and instructors for airborne lead showed exposure levels below the PEL set by OSHA. However, if lead exposure is found to exceed the 50 $\mu\text{g}/\text{m}^3$ PEL, periodic exposure monitoring would be needed. Additionally, a lead compliance plan would need to be developed to reduce lead exposure to or below the PEL. The survey also noted the lead dust contamination of a variety of surfaces including the target preparation table, the table in the range officer's control booth, the bottoms of shoes, and handles of tools used for cleaning. The report recommended decontamination to eliminate existing lead dust, and implementation of enhanced cleaning procedures for all heavily contaminated items (ICE, 2017b).

Risks from excessive noise levels include hearing loss, sleep disturbances, cardiovascular and psychophysiological problems (CDCP, 2018). Federal and state regulations set noise emission control standards (42 USC 4901), and OSHA regulations set exposure limits for all employees, which is 90 dBA for all workers for an eight-hour day (1910.95). The 2017 Baseline Industrial Hygiene Survey found that for four shooters and one instructor, the OSHA action level of 85 dBA was exceeded and for three shooters, the OSHA PEL of 90 dBA was exceeded. All shooters and instructors were wearing hearing protection during noise exposure monitoring. Based on these results, the report recommended instituting a 'Hearing Conservation Program' as per the provisions listed under OSHA's Occupational Noise Exposure Standards (29 CFR § 1910.95), which would involve periodic monitoring of employees' exposure to noise levels greater than the 85-dBA threshold, and provide hearing protectors to affected employees free of charge.

Munition Waste Contamination

According to the USACE FUDS Report of 2009, the MCs present in the Burial Pit MRS have the potential to leach from soil to shallow groundwater. Contact with shallow groundwater, surface runoff, or sediment could expose commercial/industrial workers and site visitors to contaminants during shallow excavations via dermal contact or incidental ingestion. In addition, there are chances of inhaling MC-contaminated dust (USACE, 2009c). Since no wells are located within this MRS, ingestion through drinking water is not expected.

For the Range Complex No. 1 MRS, no MCs were detected in the soil samples collected from the site. Thus, the potential of exposure to munition contaminants via soil, surface water, groundwater, sediment or air is unlikely.

Asbestos and Lead-Based Paint

As previously described in Section 3.4, multiple buildings currently in use at the SPC are suspected to have ACM and LBP, including 17 early-era structures and four still existing abandoned residential houses. Based on a site assessment conducted in 2017, the following structures were confirmed to have ACMs:

- Building 9
- Building 10
- Building 40
- Building 100
- Fire Station
- Laundry
- Mess Hall (also contains LBP)

Asbestos is a human carcinogen that can cause lung and other types of cancers, as well as chronic lung diseases (OSHA, 2014). OSHA standards (29 CFR § 1926.1101) ensure that workers are well protected against the hazards of asbestos during construction activities, including repair, maintenance, renovation and demolition. OSHA sets the PEL standard for asbestos, which is 0.1 fiber per cubic centimeter of air as an eight-hour TWA, with an excursion limit (EL) of 1.0 asbestos fiber per cubic centimeter over a 30-minute period.⁷

Depending on the scope of a construction project, worker exposure to lead based paints may vary. Activities involving removal of LBP from small residences may result in limited lead exposure, whereas removing LBP from large structures such as bridges may involve exposure to much higher lead concentrations. As stated previously, OSHA's lead standard for the construction industry (29 CFR § 1926.62) establishes a PEL of 50 µg/m³, and an action level of 30 µg/m³ for all workers (OSHA, 2004). Additional information regarding the removal of LBP is provided in Section 3.10.2.1.

Hazardous Materials/Waste Spills

As detailed in Section 3.4 (Hazardous Materials and Waste), the detention center stores hazardous chemicals such as diesel fuel, paints, thinners and other solvents, and hazardous waste such as used oil. Spills from these materials, and fuel spills from vehicles operating onsite could be a source of possible impacts to human health and safety. Spills can introduce soil contamination and exposure pathways to workers and the public. Contaminated soils can be transported by surface water runoff (USEPA, No Date),

⁷ To be consistent with the terminology use by the American Conference of Governmental Industrial Hygienists (ACGIH), OSHA has adopted the term 'Excursion Limit', to refer the short-term permissible exposure limit.

increasing the risk of exposure. The risks and effects of a spill depend on the chemical's composition. Similarly, waste management is also a source of possible human health and safety risks from exposure to contaminants. Additional information about the possible human health and safety risks are included in Section 3.10.2.1.

Municipal and Construction Waste

To minimize potential exposure or safety concerns to workers or occupants of a facility, the Code of Ordinances for the City of Los Fresnos prohibits the accumulation of trash, debris, junk, or garbage at any real property, occupied or unoccupied. A person owning, managing, operating, leasing, or renting any premises is required to use a cart or a dumpster for the daily accumulation of solid waste. While cart or dumpster service is not required during the construction phase until the certificate of occupancy is issued, arrangements must be made with a solid waste contractor for construction debris removal or self-removal to the landfill. The city also provides recycling services for different types of wastes at various locations and times each week (Los Fresnos, Texas – Code of Ordinances, Sec. 34-21).

3.10.2 Environmental Consequences

The environmental consequences of the Proposed Action and the No Action Alternative on human health and safety are discussed in detail in the following section.

3.10.2.1 Proposed Action (Preferred Alternative)

Potential impacts from construction practices, ground disturbance, and/or potential contact with hazardous materials and waste during implementation of the Proposed Action could be largely minimized with BMPs. During construction activities, there would be risk associated with the operation of heavy machinery, and incidents such as slip, trips, falls, wounds, and traumatic injuries could occur. OSHA regulations outlined in Title 29 CFR § 1926.62 would be implemented and followed to ensure the safety of construction workers. All personnel would be trained regarding the safety measures and procedures associated with the job. All necessary safety equipment would be worn during operating hours or while on the premises. Thus, if BMPs and regulations are followed, there would be a low likelihood of minor adverse short-term impacts with limited extent.

Under the Proposed Action, one of the sources of risk to the health and safety of the workers, and to a lesser extent, onsite employees and detainees, would be the potential exposure to asbestos and LBP during construction activities. Prior to demolition of any building, workplace assessment and monitoring would be conducted to determine if asbestos and lead exposure is at or above the PEL or EL for workers. If the exposure potential exceeds the PEL/EL, appropriate engineering controls and work practices would be established to ensure worker protection. For example, a worker protection program would be implemented and include provisions such as exposure assessment, hazard determination, and periodic medical surveillance. All workers who would be exposed to asbestos and lead would be required to undergo proper training before any construction commences (OSHA, 2014). A licensed contractor would be retained to remove and properly dispose of ACMs and LBP. If the appropriate BMPs are followed, the impacts to workers during the construction/demolition portion of the project would have short-term, minor adverse impacts with a high likelihood and small extent. The removal of these materials as a result of implementing the Proposed Action would have a permanent, moderate beneficial impact with a small extent.

Raising the firing range berms as part of the renovation activities under the Proposed Action could expose the workers to hazardous materials (e.g., lead). Therefore, soil sampling would be conducted in proposed

construction areas, where there is a known potential for contamination prior to soil export, reuse, or disposal to characterize the soil for the presence of hazardous materials (e.g., metals, petroleum, hydrocarbons, VOCs, pesticides, etc.). If contaminated soil is present, appropriate abatement actions would be implemented in accordance with applicable regulatory requirements to prevent, minimize, and control hazardous materials as needed during construction. Health risk assessments would be conducted for facilities within the SPC where contamination has been documented to evaluate whether the levels of contaminants would pose a risk to human health during the implementation of the Proposed Action. The cleaning of contaminated soil and its reuse, or disposing of such soil would have a high likelihood of short and long-term, moderate, beneficial impacts with medium extent.

Health risks due to exposure to spills might be encountered during the course of construction. All spills or releases of petroleum oil products, hazardous materials, pollutants or contaminants would be handled in accordance with measures outlined in the SPCC Plan. Under the Proposed Action, assuming the appropriate BMPs are implemented and workers adhere to the SPCC Plan, the impacts would be short-term, minor, and adverse with a small extent and high likelihood. However, since construction workers would be required to wear the appropriate safety equipment during all construction activities, any exposure to contaminated soil and subsequent health risks would be minor, regardless of whether BMPs are implemented. Conditions would return to current levels once construction activities are completed.

With the operation of multiple items of equipment occurring concurrently, workers could experience high noise levels during construction. In order to reduce noise impacts to surrounding areas, contractors would utilize and properly maintain construction equipment mufflers. Noise effects on construction personnel would be limited by ensuring all personnel wear adequate personal hearing protection to limit exposure and ensure compliance with federal health and safety regulations. While the staff and detainees would not wear personal hearing protection, they would be farther away from the noise sources. Therefore, the noise impacts under the Proposed Action would be short-term, moderate, and adverse, with a small extent and high likelihood, as detailed in Section 3.9.2.1.

To minimize potential exposure or safety concerns to workers, municipal waste, construction debris, and other demolition waste would be regularly removed from all proposed development areas and sent to recycling/disposal facilities. Potentially hazardous wastes generated during Project-related construction activities would be disposed of or recycled at appropriate facilities in conformance with regulatory requirements.

3.10.2.2 No Action Alternative

No construction, renovations, or demolitions would occur at the Port Isabel SPC under the No Action Alternative. Minor repairs would occur as needed and maintenance and operation of the existing facilities would continue. However, no ACMs or LBPs would be removed, and the potentially lead-contaminated soil at the firing ranges would not be remediated, which could have a long-term, moderate and localized adverse impact on the health of the Port Isabel SPC staff and detainees. The risk of such exposure would be higher than under the Proposed Action. Other ongoing impacts would be similar to those resulting from current operations, consistent with the existing human health and safety requirements.

3.11 SOCIOECONOMICS

The analysis of socioeconomic impacts identifies those aspects of the social and economic environment that are sensitive to changes and that may be affected by activities associated with the Proposed Action. Socioeconomic factors describe the local demographics, income characteristics, and employment of the region of influence (ROI) that could be potentially affected by the proposed project. The Port Isabel SPC is located in Los Fresnos, Texas in Cameron County, the southernmost county in Texas and one of the fastest growing counties in the state. Nearby Brownsville is the largest city in Cameron County. The U.S./Mexico border lies to the south of Cameron County. For purposes of this analysis, Cameron County is the analytical ROI for consideration of socioeconomic effects.

3.11.1 Affected Environment

The data supporting this analysis were collected from standard sources, including the United States Census Bureau (USCB) and the Bureau of Labor Statistics (BLS). Demographic data for Los Fresnos and Brownsville is presented and compared to Cameron County overall. Economic data presented in this section focus on Cameron County. The most recent and best available data are presented throughout the section.

3.11.1.1 Population

The Port Isabel SPC is located in a rural, sparsely populated area. A review of U.S. Census data was conducted to compare the socioeconomic characteristics of Los Fresnos (where the SPC is located), Brownsville (the largest city in Cameron County), and Cameron County (USCB, 2000; USCB, 2010a; USCB, 2017). In all locations, the population increased from 2000 to 2017. On average, from 2000 to 2017, Los Fresnos grew 4.3 percent per year; Brownsville 1.8 percent; and Cameron County 1.6 percent (see Table 3.11-1). During this timeframe, Los Fresnos had the largest growth rate of the three locations, more than twice as much as Brownsville and Cameron County.

Table 3.11-1. Population Growth in Los Fresnos, Brownsville, and Cameron County, Texas

Location	Population			Average Annual Growth Rate (2000-2017)
	2000	2010	2017	
Los Fresnos	4,512	5,542	7,830	4.3
Brownsville	139,722	175,023	183,299	1.8
Cameron County	335,227	406,220	423,725	1.6

Sources: USCB, 2000; USCB, 2010a; USCB, 2017.

3.11.1.2 Labor

Labor in the ROI is discussed in this section by subtopic: civilian labor force, unemployment, and earnings (by per capita personal income and by industry compensation).

Civilian Labor Force

The size of a county's civilian labor force is measured as the sum of those currently employed and unemployed. People are classified as unemployed if they do not have a job, have actively looked for work in the prior four weeks, and are currently available for work (BLS, 2015). As shown in Table 3.11-2, from

2000 to 2016 Cameron County’s labor force grew 30.4 percent, approximately two percent faster than the state overall. Cameron County added over 38,000 people to its labor force over the last 16 years, while the state of Texas added almost three million to its labor force during this same period (BLS, 2000; BLS, 2005; BLS, 2010; BLS, 2016).

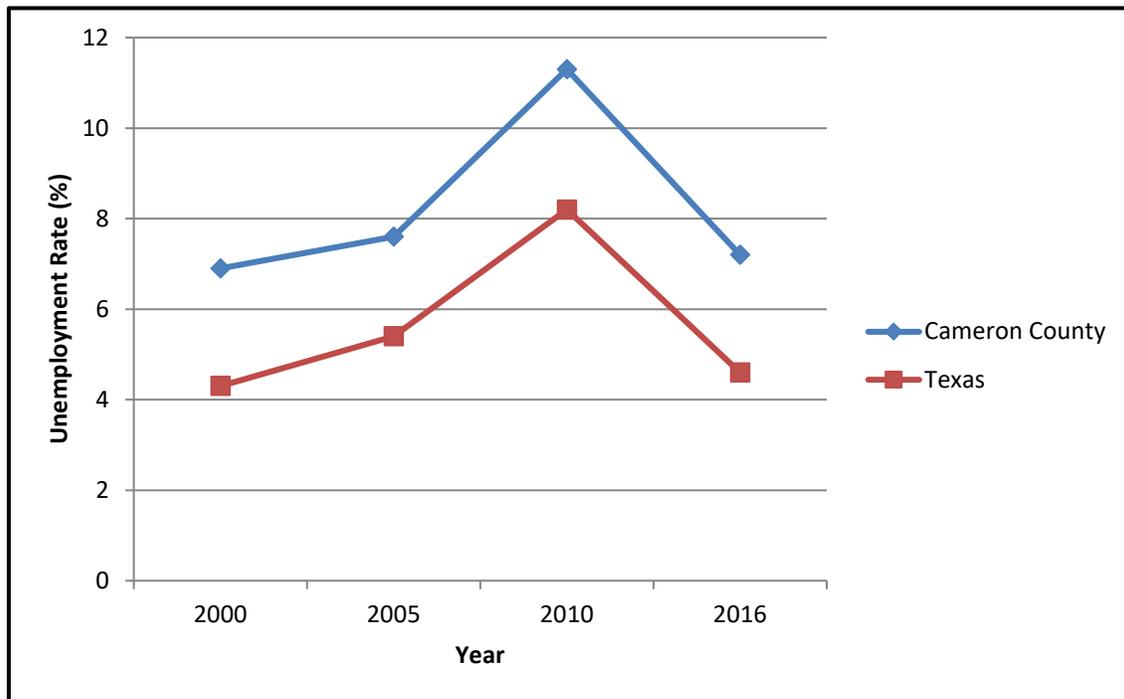
Table 3.11-2. Civilian Labor Force (2000-2016)

Location	2000	2005	2010	2016	Growth Rate of Labor Force (2000-2016)
Cameron County	127,268	140,218	160,033	166,061	30.4
Texas	10,374,095	11,124,254	12,269,749	13,284,651	28.1

Sources: BLS, 2000, 2005, 2010, and 2016.

Unemployment

The unemployment rate is calculated based on the number of unemployed persons divided by the labor force, where the labor force is the number of unemployed persons plus the number of employed persons. Figure 3.11-1 exhibits the annual unemployment rates in Cameron County and the state overall for the years 2000, 2005, 2010, and 2016. Unemployment rates in Cameron County were higher but had a similar trend to those of the state of Texas; and both the county and state unemployment rates rose and fell with national trends. From 2000 to 2010, unemployment in Cameron County and Texas increased by 4.4 and 3.9 percent, respectively. The sharp increase between 2005 and 2010 can be attributed to the 2008 economic crisis, which was part of the global financial downturn. Unemployment rates have decreased since 2010, and in 2016 unemployment rates were 7.2 and 4.6 percent in Cameron County and Texas, respectively, similar to the unemployment rates in 2000.



Sources: BLS, 2000, 2005, 2010, and 2016.

Figure 3.11-1. Unemployment Rates (2000-2016)

Earnings

Several measures are used to describe earnings, including per capita personal income (PCPI), total industry income, and compensation by industry. Personal income data are measured and reported for the county of residence. PCPI, then, is the total personal income for county residents divided by the county’s total population. Compensation data, however, are measured and reported for the county of work location and are typically reported on a per job basis. Compensation data indicate the wages and salaries for work done in a particular place (e.g., a county), but if the worker does not live in the county where the work occurred then a sizeable portion will be spent elsewhere. These expenditures will not remain in or flow back into the economy of the county where the work is done. Total compensation includes wages and salaries as well as employer contribution for employee retirement funds, social security, health insurance, and life insurance.

Per Capita Personal Income

Personal income is the income received by a person from all sources. It is the sum of net earnings by place of residence, property income, and personal current transfer receipts or government social benefits (BEA, 2018). This includes earnings from work, interest and dividends received, as well as government transfer payments, such as social security checks. It is measured before the deduction of personal income taxes and other personal taxes and is reported in current dollars.

Table 3.11-3 shows 2000, 2005, 2010, and 2016 annual PCPI for Cameron County and the state of Texas. All dollar estimates are in current dollars (not adjusted for inflation). In 2016, the PCPI in Cameron County was \$27,055, representing a 4.8 percent average annual increase since 2000; while on average, the state’s PCPI increased 4.0 percent per year from 2000 to 2016. Cameron County’s PCPI was about 55 to 60 percent lower than the state overall from 2000 to 2016. While Cameron County’s PCPI was lower than Texas’ PCPI during the 16-year interval shown in Table 3.11-3, on average Cameron County’s PCPI grew almost one percent faster than the state PCPI.

Table 3.11-3. Per Capita Personal Income (2010-2016)

Location	2000	2005	2010	2016	Average Annual Percent Change (2000-2016)
Cameron County	\$15,315	\$18,725	\$23,152	\$27,055	4.8
Texas	\$28,145	\$32,793	\$37,892	\$46,274	4.0

Sources: BEA, 2016a and 2016b.

Note: All dollar estimates are in current dollars (not adjusted for inflation).

Industry Compensation

The term “Total Industry Compensation,” often used in economic data, is somewhat of a misnomer in that a portion of the “industry earnings” stems from government-related activity. For example, government and government enterprises account for 31.9 percent of total compensation of employees in Cameron County; government and government enterprises often account for a similar proportion of the compensation of employees in a county. Nevertheless, total industry compensation provides a good picture of the relative sizes of market-related economic activity, or business activity, performed in a county (Table 3.11-4).

Income is generated by economic activity in Cameron County through a variety of sectors, including various types of business as well as government. This income is not always received by a person living in the county; for example, a person from a neighboring county may cross county lines to go to work. The

employee compensation by industry, however, is a measure of economic activity generated in the county, regardless of where the employee resides.

The sources of economic activity in Cameron County are shown in Table 3.11-4. The government and government enterprises; health care and social assistance; retail trade; manufacturing; administrative, waste management, and remediation services; and accommodation and food services industries accounted for over 75 percent of the approximately \$6 million compensated to employees in Cameron County in 2016.

Table 3.11-4. Compensation of Employees by Industry in Cameron County (2016)

Industry Description	Compensation (\$000)	Percent
Government and government enterprises	1,949,811	31.9
Health care and social assistance	1,303,327	21.3
Retail trade	549,727	9.0
Manufacturing	323,925	5.3
Administrative and support and waste management and remediation services	299,589	4.9
Accommodation and food services	275,306	4.5
Transportation and warehousing	227,127	3.7
Other services (except government and government enterprises)	213,321	3.5
Finance and insurance	184,612	3.0
Wholesale trade	178,918	2.9
Construction	156,816	2.6
Professional, scientific, and technical services	123,357	2.0
Information	59,770	1.0
Real estate and rental and leasing	59,502	1.0
Educational services	49,016	0.8
Forestry, fishing, and related activities	39,533	0.6
Arts, entertainment, and recreation	30,055	0.5
Utilities	28,784	0.5
Management of companies and enterprises	25,530	0.4
Farm	21,779	0.4
Mining, quarrying, and oil and gas extraction	11,857	0.2
Total Compensation of Employees	6,111,662	100

Source: BEA, 2016c.

3.11.2 Environmental Consequences

This section discusses aspects of the social and economic environment that are sensitive to changes and that may be affected by activities associated with the Proposed Action and No Action Alternative.

3.11.2.1 Proposed Action (Preferred Alternative)

The following sections discuss the impacts to the population and to labor and earnings that would occur under the Proposed Action. They are discussed separately to provide a more detailed analysis.

Population

The population in Los Fresnos, Brownsville and Cameron County is not expected to change as a result of the Proposed Action. Therefore, the Proposed Action would not have any impact on the local population. Construction and demolition activities at the Port Isabel SPC under the Proposed Action would create minor, adverse impacts in the short term to staff and detainees. Once these activities are complete, impacts on detainees and staff would be minor and beneficial. Both short- and long-term impacts would have a high likelihood of occurring since, as established in Section 3.10 (Human Health and Safety), increased noise levels have health risks including hearing loss, sleep disturbances, and cardiovascular and psychophysiological problems (CDCP, 2018). Both increased noise levels and the benefits of a modernized detention center would have a medium or localized extent, affecting staff and detainees at the Port Isabel SPC.

Labor and Earnings

It is plausible that local construction workers would be hired for the Proposed Action, and that local jobs would be created as a result. However, ICE does not have control over where the construction workers would reside, and therefore, where the majority of their wages would be spent. The Proposed Action could have direct impacts on labor and earnings in Cameron County and the surrounding counties. Indirect or induced jobs could also be created from project-related spending (i.e., purchase of materials from local vendors) and workers spending wages on items like food or entertainment in Cameron County and the surrounding counties. In 2016, the unemployment rate in Cameron County was 7.2 percent, indicating that approximately 12,000 of the approximately 166,000-person labor force did not have a job, had actively looked for work in the prior four weeks, and were currently available for work. Given the number of unemployed individuals in Cameron County alone, it is likely that any indirect or induced jobs created as a result of this alternative could be filled by residents within Cameron County or the surrounding counties. Regardless of whether all local construction workers were hired from within Cameron County, all local construction workers were hired from the counties surrounding Cameron County, or some construction workers were from Cameron County and some were from the surrounding counties, the economic impact from the Proposed Action would be beneficial and negligible to minor. These negligible to minor, beneficial impacts on the labor force or employment would be most felt by those in search of a job in Cameron County or in surrounding counties. Unemployment rates would not be increased by the Preferred Alternative. Correspondingly, it is plausible that unemployment rates would decrease slightly during the construction phase if local contractors are hired to conduct the projects.

Indirect socioeconomic impacts would result from directly impacted industries purchasing supplies and materials from other industries. For purposes of this analysis, it is assumed that at least a portion of materials (e.g., lumber, concrete) and equipment would be purchased from local vendors. Indirect jobs would be created when purchases are made from local vendors and retail stores and at establishments where workers would shop. Induced impacts would occur when employees of the directly and indirectly affected industries spend the wages they receive. The small number of indirect and induced jobs that would be created would likely be relatively low-wage jobs such as restaurant workers or convenience store clerks. Potential economic and health benefits associated with the indirect or induced jobs could benefit Cameron County residents or residents in surrounding counties in search of a job. Jobs and income are strongly associated with a number of beneficial health outcomes, such as an increase in life expectancy, improved child health status, improved mental health, and reduced rates of chronic and acute disease morbidity and mortality (HDA 2004; Cox et al., 2004).

The Proposed Action would create direct, indirect, and induced jobs in the short term, and economic benefits from the associated slight increase in earnings and the slight decrease in unemployment would be negligible to minor. No adverse or beneficial impacts would occur in the long term once construction activities were completed. Both short- and long-term impacts would be large in extent, affecting Cameron County's or the surrounding counties' labor forces, PCPIs and unemployment figures. While the number of jobs that would be created as a result of the construction activities under the Proposed Action is not known, the likelihood of the negligible to minor beneficial impacts occurring is nonetheless high (the magnitude of effects is conservative).

3.11.2.2 No Action Alternative

Under the No Action Alternative, the activities described under the Proposed Action would not be implemented. In the short term, no impacts would occur to socioeconomic resources and in the long term, local populations, labor, and earnings would not be impacted under the No Action Alternative.

3.12 ENVIRONMENTAL JUSTICE

The USEPA defines environmental justice as “the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies.” The goal of “fair treatment” is not to shift risks among populations, but to identify potential disproportionately high adverse impacts on minority and low-income communities and identify alternatives to mitigate any adverse impacts.

EO 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, requires that federal agencies consider as a part of their action any disproportionately high and adverse human health or environmental effects to minority and low-income populations. Federal agencies are required to ensure that these potential effects are identified and addressed.

For purposes of assessing environmental justice under NEPA, the CEQ defines a minority population as one in which the percentage of minorities exceeds 50 percent or is substantially higher than the percentage of minorities in the general population or other appropriate unit of geographic analysis (CEQ, 1997). Since potential impacts with the greatest intensity and longest duration would occur at or in the vicinity of the Port Isabel SPC, which is located within Census Tract (CT) 123.01, CT 123.01 is defined as the ROI for any direct and indirect impacts that may be associated with the implementation of the Proposed Action. For purposes of comparison, Cameron County is defined as the region of comparison (ROC), or the “general population” as it corresponds to the CEQ definition.

3.12.1 Affected Environment

In this section, race and income data for CT 123.01 (the ROI) are compared to race and income data for Cameron County (the ROC). Due to the site-specific nature of the Proposed Action, CT data are used to identify high concentration “pockets” of environmental justice populations in or near the Port Isabel SPC. CTs are small, relatively permanent statistical subdivisions of a county or equivalent entity, generally with a population size between 1,200 and 8,000 people. A CT usually covers a contiguous area, and its boundaries usually follow visible and identifiable features (e.g., road, river). CTs were designed to be relatively homogeneous units with respect to population characteristics, economic status, and living conditions (USCB, 2014). All figures and calculations are based on the United States Census Bureau (USCB) 2012-2016 USCB American Community Survey datasets.

3.12.1.1 Minority Populations

The CEQ defines “minority” as including the following population groups: American Indian or Alaskan Native; Asian or Pacific Islander; Black, not of Hispanic Origin; or Hispanic (CEQ, 1997). The CEQ defines a minority population in the following ways:

- “...If the percentage of minorities exceeds 50 percent... (CEQ, 1997).” As this definition applies to the Proposed Action, if more than 50 percent of the population in CT 123.01 consists of minorities, this would qualify as constituting an environmental justice population.
- “... [If the percentage of minorities] is substantially higher than the percentage of minorities in the general population or other appropriate unit of geographic analysis (CEQ, 1997).” For purposes of this analysis, a discrepancy of 10 percent or more between minorities (the sum of all minority groups) in CT 123.01 and Cameron County would be considered “substantially” higher, and would categorize CT 123.01 as constituting an environmental justice population.

As Table 3.12-1 indicates, CT 123.01 meets the regulatory definition of a minority population or minority group(s) because minorities represent more than 50 percent of CT 123.01’s total population (USCB, 2010a; USCB, 2010b). By this CEQ definition of a minority population, the ROI constitutes an environmental justice population.

Table 3.12-1. Summary of Minorities in the ROI and ROC in 2010

Location	Total Population	Minority (%)	American Indian and Alaska Native (%)	Black or African American (%)	Asian (%)	Native Hawaiian and Other Pacific Islander (%)	Hispanic or Latino (%)
Census Tract 123.01 ^a	4,677	56.8	0.3	2.7	2.5	0	51.3
Cameron County ^b	406,220	89.7	0.4	0.5	0.7	0	88.1

Sources: USCB, 2010a; USCB, 2010b.

Notes: ROI = Region of Influence; ROC = Region of Comparison.

^a ROI

^b ROC

3.12.1.2 Low-Income Populations

Low-income populations are defined as households with incomes below the federal poverty level. There are two slightly different versions of the federal poverty measure: poverty thresholds defined by the USCB and poverty guidelines defined by the Department of Health and Human Services (DHHS).

The poverty thresholds are the original version of the federal poverty measure and are updated each year by the USCB. The USCB uses a set of income thresholds that vary by family size and composition (number of children and elderly) to determine who is in poverty. If a family’s total income is less than the family’s threshold, then that family and every individual in it is considered in poverty. The same applies for a single individual. The official poverty thresholds do not vary geographically but are updated for inflation. The official poverty definition considers pre-tax income and does not include capital gains or non-cash benefits such as public housing, Medicaid, and food stamps (CEQ, 1998). Poverty thresholds are primarily used for statistical purposes, such as calculating poverty population figures or estimating the number of Americans in poverty each year. Poverty threshold figures are reported in the annual poverty report and provide a yardstick for progress or regress in antipoverty efforts. *Environmental Justice Guidance Under NEPA* recommends that USCB poverty thresholds be used to identify low-income populations (CEQ, 1997). As such, this section uses USCB poverty thresholds to identify low-income populations.

Because CEQ guidance does not specify a threshold for identifying low-income populations, the same approach used to identify environmental justice minority populations is applied to low-income populations. CT 123.01 would be defined as a low-income population or environmental justice population if:

- More than 50 percent of CT 123.01 consists of families or persons below the poverty threshold; or
- The percentage of low-income families or persons in CT 123.01 is substantially higher than the percentage in Cameron County. A discrepancy of 10 percent or more between CT 123.01 and

Cameron County would be considered “substantially” higher and would categorize CT 123.01 as constituting a low-income population.

Table 3.12-2 provides statistics relevant to assessing the presence of low-income populations in the areas that would be affected by the Proposed Action. The percentage of all people and all families below the poverty threshold in CT 123.01 is 17.4 and 16.1 percent lower than in Cameron County, respectively. Neither the percentage of all people nor of all families living below the poverty threshold in CT 123.01 exceed 50 percent of the total county population. Therefore, CT 123.01 does not qualify as having a low-income population by either CEQ definition.

Table 3.12-2. Summary of Income and Poverty Statistics in the ROI and ROC in 2010

Location	People Below the Poverty Threshold (%)	Families Below the Poverty Threshold (%)
Census Tract 123.01 ^a	17.4	13.9
Cameron County ^b	34.8	30.0

Sources: USCB, 2010c; USCB, 2010d.

Notes: ROI = Region of Influence; ROC = Region of Comparison.

^a ROI

^b ROC

3.12.2 Environmental Consequences

Consideration of the potential consequences for environmental justice requires three main components:

1. A demographic assessment of the affected community to identify the presence of minority and low-income populations that may be potentially affected.
2. An assessment of all potential impacts identified to determine if any result in adverse impact to the affected environment.
3. An integrated assessment to determine whether any disproportionately high and adverse impacts exist for minority or low-income groups present in the ROI.

As described in the affected environment (Section 3.12.1), CT 123.01 represents the ROI for any direct and indirect impacts to environmental justice populations that may be associated with the implementation of the Proposed Action and No Action Alternative. For purposes of comparison, Cameron County was defined as the geographic unit of comparison and the “general” population (the ROC). The percentage of the low-income population in the ROI neither exceeds 50 percent nor is substantially higher than the percentage in the ROC. Therefore, CT 123.01 does not qualify as having a low-income population by either CEQ definition. Disproportionate impacts to low-income populations in CT 123.01 would therefore not occur and are not discussed further.

The minority population in CT 123.01 represents more than 50 percent of CT 123.01’s total population. Therefore, CT 123.01 consists of a minority population or an environmental justice population. The potential for the minority population in CT 123.01 to be displaced, suffer a loss of employment or income, or otherwise experience adverse effects to general physical health and well-being is assessed for posing an environmental justice concern. Potential impacts resulting from the Proposed Action as well as the No Action Alternative are evaluated below.

In general, the types of potential impacts could include:

- Social and economic benefits of indirect and induced jobs created;
- Health risks from increased fugitive dust and exhaust emissions;
- Noise disturbance;
- Restricted or delayed access to schools due to traffic and time delays; and
- Restricted or delayed access to hospital or health care facilities due to traffic and/or time delays.

3.12.2.1 Proposed Action (Preferred Alternative)

As discussed in Section 2.1, the Proposed Action involves the implementation of a variety of modernizations at the existing Port Isabel SPC. Overall, the use of heavy equipment would cause negligible to minor, adverse noise and air quality impacts to minorities in CT 123.01 in the short term. Health benefits associated with direct, indirect, or induced jobs would occur in the short term but would be largely reversed after the construction period ends. In the long term, the Proposed Action would result in continued operation of the Port Isabel SPC at current levels. Overall, impacts on minority populations in CT 123.01 would not be disproportionately high and adverse in either the short or long term.

Noise and Air Quality Impacts

The use of heavy equipment during construction and demolition activities under the Proposed Action would cause negligible to minor adverse noise and air quality impacts in the short term. Both adverse noise and air quality impacts would have a high likelihood of occurring and a medium or large extent, affecting residents directly south and west of the facility; higher population areas (i.e., local neighborhoods) are located approximately 2.1 miles away, and therefore, would not be impacted.

To minimize the effects of noise impacts on noise-sensitive land uses such as residential areas, construction would primarily occur during normal weekday business hours and construction equipment mufflers would be properly maintained and in good working order. Emissions from the use of heavy equipment, airborne dust, and soil surface disturbance could degrade air quality. The majority of the NO_x, SO₂, and CO emissions would be associated with vehicle/equipment exhaust. Since these emissions would occur at ground level, they would likely cause short-term increases in air pollutant emissions in the immediate vicinity of the construction activities, but it is unlikely that these emissions would be transported more than a few miles. Once construction ceases and vegetation has been re-established, equipment use, vehicular traffic, associated emissions, and ambient pollutant concentrations would return to existing levels.

Children would be especially vulnerable due to receiving higher doses of air pollution relative to their body mass, having smaller diameter airways, spending more active time outdoors, and being closer to ground-level sources of vehicle exhaust (USEPA, 2012). In particular, children residing in CT 123.01, especially those residing directly south and west of the Port Isabel SPC, could experience negligible to minor adverse impacts with a low likelihood during construction activities. Noise disturbances from construction activities could also have negligible to minor adverse impacts on the health and learning of children.

In the long term, after the completion of construction activities, adverse noise, and air quality impacts would not occur.

Delays in Access

It is assumed that all project activities under the Proposed Action would take place on the Port Isabel SPC property and no public road closures would be required. However, it is also assumed that offsite traffic impacts could occur due to project worker commutes and the transport of heavy equipment to and from

the project site via heavy trucks. When heavy trucks travel outside of the Port Isabel SPC, traffic flow along nearby roads could be impacted and delayed.

In the long term, traffic would return to current conditions and therefore no impacts from the Proposed Action would occur.

Labor and Earnings

It is assumed that, for purposes of analysis, local construction workers would be hired, and therefore, that the Proposed Action would create direct, indirect, or induced jobs. It is also assumed that at least a portion of materials (e.g., lumber, concrete) and equipment would be purchased from local vendors. Indirect economic impacts (discussed further in Section 3.11) would result from directly impacted industries purchasing supplies and materials from other industries. Indirect jobs include local vendors from whom construction companies would make purchases and local retail stores and establishments where workers would shop. Induced impacts would occur when employees of the directly and indirectly affected industries spend the wages they receive. The indirect and induced jobs that would be created would likely be relatively low-wage jobs such as restaurant workers or convenience store clerks. Beneficial impacts to the labor force or employment would be most felt by those in search of a job in Cameron County and the surrounding counties.

Potential economic and health benefits associated with jobs could disproportionately benefit minorities in CT 123.01 in search of a job. Jobs and income are strongly associated with a number of beneficial health outcomes such as an increase in life expectancy, improved child health status, improved mental health, and reduced rates of chronic and acute disease morbidity and mortality (HDA, 2004; Cox et al., 2004). Beneficial impacts due to the creation of direct, indirect and induced jobs associated with the Proposed Action would be minor. The likelihood of these beneficial impacts is high because the link between jobs and income and beneficial health outcomes mentioned above is well-established. The extent of impacts would be large because all minority populations in search of a job in Cameron County and the surrounding counties could benefit. The social and economic benefits of job creation would not be permanent and would largely revert to currently existing levels in the long term, after construction is complete.

3.12.2.2 No Action Alternative

No construction, renovations, or demolitions would occur at the Port Isabel SPC under the No Action Alternative. Minor repairs would occur as needed and maintenance and operation of the existing facilities would continue. The adverse and beneficial impacts described under the Proposed Action would not occur in the short or long term.

4.0 CUMULATIVE IMPACTS

Cumulative impacts are defined by the Council on Environmental Quality (CEQ) regulations in 40 Code of Federal Regulations (CFR) § 1508.7 as “the impact on the environment which results from the incremental impact of the [proposed] action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such actions. Cumulative impacts can result from individually minor, but collectively significant, actions taking place over a period of time.” Cumulative impacts include the direct and indirect impacts of a project together with the past, present and reasonably foreseeable future actions of other projects. According to CEQ’s cumulative impacts guidance, the cumulative impact analysis should be narrowed to focus on important issues at a national, regional, or local level.

The City of Los Fresnos has experienced steady population and economic growth over the last few decades. Past and ongoing actions in the area are primarily associated with commercial development and development of supporting infrastructure such as roadways and utility systems. Current and foreseeable future federal and local development projects within and in the vicinity of the project area are identified below.

Federal Projects

Rio Grande Liquefied Natural Gas Project/Rio Bravo Pipeline

Rio Grande Liquefied Natural Gas (RGLNG) is a natural gas liquefaction and liquefied natural gas (LNG) export project. On May 5, 2016, the lead company (NextDecade) filed an application with the Federal Energy Regulatory Commission (FERC) to site, construct and operate a new natural gas pipeline, the Rio Bravo Pipeline, and a new natural gas treatment/export facility (the “Terminal”). The pipeline will run approximately 140 miles from Kingsville, Texas to the Terminal and consist of two 42-inch pipelines. The Terminal will be sited on approximately 1,000 acres of land along the Brownsville Ship Channel located in Cameron County and provide natural gas liquefaction, export, and vessel and truck loading services to third parties. The proposed project is currently being reviewed pursuant to the National Environmental Policy Act (NEPA) (Rio Grande LNG, 2018).

Local Projects

South Padre Island 2nd Access Project

The Cameron County Regional Mobility Authority, in cooperation with the Texas Department of Transportation and the Federal Highway Administration, has prepared a Draft Environmental Impact Statement (EIS) for the 2nd Access Project. The project would occur in Cameron County, Texas, and would provide an alternate route connecting South Padre Island and the mainland, supplementing access to and from the island that is currently only provided by the Queen Isabella Memorial Causeway. Currently, seven of the 11 alternate routes proposed in the Draft EIS connect South Padre Island to Centerline Road, which lies directly to the south/southeast of the Port Isabel Service Processing Center (SPC) (CCRMA, 2012).

This project is not yet funded and the start date of construction is unknown; however, the design year described in the draft EIS for the 2nd Access Project is 2036. It is planned that all improvements to the Port Isabel SPC described in this Environmental Assessment (EA) would have already been completed by the year 2036.

Ocelot Underpasses / Bayside Drive

On June 7, 2018, the Federal Highway Administration began construction on the National Wildlife Refuge (NWR) Bayside Drive to install wildlife underpasses and widen the road, in preparation for reopening the tour route to private vehicles. One purpose of the projects is to reduce the potential for ocelot strikes by vehicles. Bayside Drive will be temporarily closed to all visitor uses while construction takes place. The project is anticipated to be completed in early 2019 (Los Fresnos News, 2018a).

A raised section of road will be installed in prime ocelot habitat, which will contain two wildlife underpasses (similar to box culverts) so that ocelots and other wildlife can move freely within their home ranges without having to cross the road surface. Parts of the drive that formerly made a loop and have particularly high-quality ocelot habitat will remain closed to vehicles; the remainder of the drive will be widened to allow for two-way traffic. To further avoid disturbing ocelot habitat, the entrance to the drive will be relocated to Farm to Market (FM) 106 (General Brant Road), just south of the intersection with Buena Vista Road.

Once construction is completed, the NWR plans to reopen the Bayside Drive to hiking and biking, and to private vehicles on a limited basis. In addition to the reconstruction of Bayside Drive, the project will resurface Ocelot Road, the visitor center, and Refuge office parking lots.

General Grant Road Improvements

The 11.4-mile stretch of road, FM 106, between FM 1847 and the Port Isabel SPC has undergone major construction for the past two years. The road, which was recently acquired by the State of Texas from Cameron County, was closed to traffic as it was rebuilt (Banda, 2016). The road has reopened while Buena Vista Boulevard between the Port Isabel SPC and FM 510 is being reconstructed; and construction is nearing completion.

Los Fresnos Nature Park

Los Fresnos is currently building a 22-acre nature park along the banks of Resaca Escondida. The park will feature trails, bird watching, fishing, native vegetation and picnic areas. The City of Los Fresnos has received over one million dollars in grants from the U.S. Fish and Wildlife Service (USFWS) and the Texas Parks and Wildlife Department to build the park (Los Fresnos News, 2018b).

Los Fresnos Hike and Bike Trail

The City of Los Fresnos is developing a 3.7-mile loop trail that will encircle the general center of town. It will connect neighborhoods to schools and parks. A trail spur on the northeast corner of the trail route will lead to the Los Fresnos High School and the planned Los Fresnos Nature Park (Maldonado, 2017).

Construction of New City Hall

The City of Los Fresnos plans to construct a new 10,800-square foot City Hall. Construction is anticipated to begin in early 2019. The city also anticipates the construction of a new police department in a space behind the new City Hall (Los Fresnos News, 2018c).

Private Development in Los Fresnos

Notable private development planned for Los Fresnos includes a fitness gym at 910 South Arroyo Boulevard A2, an automobile air conditioning shop at 910 South Arroyo Boulevard E2, and infrastructure improvements associated with the installation of a new gas line at 315 North Arroyo Boulevard (Los Fresnos Planning, 2018).

4.1 SOIL RESOURCES

Cumulative impacts on soils would be expected from past, present, and reasonably foreseeable future activities such as infrastructure development. Adverse impacts would include soil compaction, channelization of runoff from impervious surfaces, erosion of soils, loss of ecological function where soils are under impervious surfaces, and land subsidence. No future projects have been identified that would cumulatively affect soil resources at Port Isabel SPC. Adverse soil impacts associated with Project activities would be small compared to cumulative past, present, and reasonably foreseeable future effects. Short- and long-term, minor, adverse, cumulative impacts on soils with small extent and high likelihood would be expected from the activities associated with the Preferred Alternative.

Under the No Action Alternative, no construction, renovation, or demolition activities would take place at the SPC and no disturbance to soils would occur. Therefore, no cumulative impacts would be expected.

4.2 WATER RESOURCES

Overall, the Preferred Alternative would contribute to cumulative impacts; however, the contribution would be minor and the resulting impacts would be less than significant. See the following subsections for additional information.

Groundwater

The Gulf Coast aquifer is the nearest major aquifer to the project site, located approximately 13 miles to the southwest of the Port Isabel SPC. No major aquifer underlies the project site. Groundwater below the site is very saline and is considered a Class 3 groundwater resource that is unsuitable as a drinking water source.

Continued use of the ranges may have resulted in lead contamination since the tests were done in 2002. Soils on the berm and surrounding area have been tested to determine the extent of current lead contamination. The testing of the berms and range area are consistent with a well-used firing range (MT2, 2018). Additional testing is anticipated to determine the most appropriate implementation of best management practices (BMPs) that could lead to improvement of groundwater quality and the long-term beneficial impact discussed in Section 3.2.2. Additional adverse impacts resulting from the Preferred Alternative would be minimal, however potential cleanup or immobilization of lead so that it does not leach into groundwater at the ranges would be a beneficial impact.

Overall, the Preferred Alternative would result in minimal direct and adverse cumulative impacts on groundwater resources as described in Section 3.2.2.1, with no additional cumulative impacts that extend beyond the project site.

With no construction or project development, the No Action Alternative would have no adverse nor beneficial cumulative impacts on the groundwater.

Surface Water

The Master Development Plan (MDP) of 2009 and the FCA of 2012 both identify past issues related to localized flooding during relatively minor storms. Specifically, the adjacent airport is identified as a source of sheet flow entering the SPC site. Construction associated with the Preferred Alternative would include drainage features for new construction and could potentially mitigate flooding conditions. Specific designs are not yet available to determine the extent to which past drainage issues would be addressed. However, Department of Homeland Security (DHS) Management Directive 025-01 "Sustainable Practices" requires

that any of its proposed development or redevelopment projects comply with Energy Independence and Security Act (EISA) provisions to restore, to the maximum extent technically feasible, the predevelopment hydrology of the site with regard to temperature, rate, volume, and duration of flow. Because of this policy, it is assumed that there would be a long-term beneficial impact on surface water use associated with the Preferred Alternative.

The SPC would continue to obtain its water supply from the Rio Grande and Rio Grande Basin through a contract with East Rio Hondo Water Supply Corporation within the currently allocated maximum annual rate. Because of this, there would be no cumulative impact on other users of this water supply.

Construction that involves land disturbance would require a National Pollutant Discharge Elimination System (NPDES) permit that addresses provisions for handling construction site runoff in a manner that minimizes surface water quality impairment that could impact downstream uses.

The Preferred Alternative would result in direct and adverse cumulative impacts on surface water resources that have minor magnitude, short-term duration, localized extent and high likelihood. However, in the long term, the Proposed Action would contribute to minor beneficial impacts on surface water with localized extent and high likelihood due to the drainage improvements mitigating flooding conditions.

With no construction or project development, the No Action Alternative would have no adverse nor beneficial cumulative impacts on the surface water.

Wetlands

The site where primary project improvements are proposed to occur would be on disturbed lands in the eastern portion of the SPC where no wetland areas are present. The wetland areas present in the western portion of the SPC are addressed in a protective 2010 Memorandum of Understanding (MOU) between USFWS and Immigration and Customs Enforcement (ICE). Runoff controls for work on the ranges would reduce the impacts on these nearby wetland areas with the result that the impacts of the project on these wetlands would be adverse and negligible.

With no construction or project development, the No Action Alternative would have no adverse nor beneficial cumulative impacts on the surface water.

Floodplains

A small area in the southeast corner of the SPC is within the 500-year floodplain. The project includes conduit, fencing, roadway repair, and wastewater treatment plant improvements in this area. However, these improvements would not change or modify the floodplain, and therefore, have an adverse yet negligible contribution to cumulative impacts on the floodplain.

With no construction or project development, the No Action Alternative would have neither an adverse nor beneficial cumulative impacts on surface water.

Coastal Management Program

The Texas General Land Office (GLO) has provided an August 29, 2018 letter stating that, based on the information provided to them, it does not appear that the Project will involve Coastal Public Lands requiring a lease or easement. As stated in Section 3.2.2.1, the Preferred Alternative activities would comply with Texas' approved coastal management program and would be conducted in a manner

consistent with the program. Therefore, the Preferred Alternative would not contribute to cumulative impacts on the CMP.

4.3 BIOLOGICAL RESOURCES

Vegetation

Vegetation in the project area has been previously cleared and/or disturbed with construction of the SPC facilities. This development has involved removal, trampling or destruction of vegetation (including sensitive vegetation communities and special status plants), disturbance of ground cover, and introduction of invasive species. These actions have also contributed to soil compaction and erosion, making it more difficult for native plant species to re-inhabit an area after disturbance. Additionally, human use of the SPC includes trampling of vegetation due to concentrated areas of foot traffic, which removes vegetation and fragments habitat and vegetative populations. Past and ongoing activities and disturbances, such as infrastructure development and maintenance, road maintenance, and travel along roadways could have contributed to the establishment and distribution of invasive species. On the other hand, it is beneficial that native vegetation communities on the western portion of the SPC have been preserved largely intact.

Any vegetation disturbance associated with the Preferred Alternative would occur in previously disturbed areas where vegetation consists of invasive grasses and other low-growing plants with little habitat value; no native or sensitive vegetation communities or special status plant species would be impacted. Thus, the Preferred Alternative would not contribute to the cumulative loss of native habitat in the surrounding environment. Adverse impacts associated with the Preferred Alternative would be small as compared to cumulative past, present, and foreseeable future effects. Overall, cumulative impacts from the Preferred Alternative when added to other past, present, and reasonably foreseeable future actions would be adverse and negligible.

The No Action Alternative would not have any adverse or beneficial cumulative impacts on vegetation.

Wildlife

Wildlife and habitat in the project area have been, and continue to be, subject to disturbance from development and human activities. Adverse cumulative impacts on wildlife from past, present, and foreseeable future actions on the SPC and on adjacent land include disturbance, displacement and mortality of individuals; interruption of breeding; the loss, fragmentation, and degradation of habitat; introduction of invasive species which outcompete native species, particularly vegetation that then alters and degrades habitat; and higher levels of human presence and activity which increase noise and disturb wildlife. For example, noise from the adjacent airport most likely disturbs wildlife present on the SPC. On the other hand, the Port Isabel SPC and adjacent Laguna Atascosa NWR have beneficial cumulative effects on wildlife as native vegetation communities on the western portion of the SPC have been preserved largely intact, providing valuable wildlife habitat.

Adverse wildlife and habitat impacts associated with the Preferred Alternative would be small compared with the cumulative effects of past, present, and foreseeable future actions. Habitat disturbance associated with the proposed Project would be small and would occur in already disturbed areas; a much greater amount of available wildlife habitat exists in the surrounding area. Also, wildlife displacement and disturbance would be temporary, lasting only for the duration of demolition and construction. Cumulative impacts from the Preferred Alternative when added to other past, present and reasonably foreseeable

future actions would be adverse yet negligible. The Preferred Alternative would not have any cumulative impacts on special status wildlife, including federally-protected species.

The No Action Alternative would not have any adverse or beneficial cumulative impacts on wildlife.

4.4 HAZARDOUS WASTE AND MATERIALS

Construction activities under the Proposed Action could result in the release of diesel fuel, gasoline, paints, and solvents (hazardous materials), and environmental contamination due to the disturbance of asbestos and lead-based paint (LBP) (hazardous waste). However, project-specific impacts from hazardous waste/materials would be reduced through conformance with applicable regulatory requirements and implementation of appropriate avoidance, minimization, and mitigation measures as required by the Occupational Safety and Health Administration (OSHA), Resource Conservation and Recovery Act (RCRA) and the Spill Prevention, Control, and Countermeasure (SPCC) Plan. The remediation of soil at the firing ranges under the Preferred Alternative would improve its quality in the short term; however, the continued use of the firing ranges after the termination of the project would have a high likelihood of adverse and major long-term cumulative impacts with a localized extent because lead would continue to accumulate in the berms and may exceed permissible levels. It may be transported off the ranges or leach into the surface and groundwater if the affected soil is not periodically cleaned up. However, since none of the projects described in Section 4.0 include removal or generation of hazardous waste, the removal of lead from the firing ranges would not contribute to cumulative impacts.

The cumulative impacts to hazardous materials and waste from construction activities occurring under the Preferred Alternative and other ongoing projects in the vicinity, such as General Grant Road improvements and Ocelot underpass construction, would be short term, adverse and minor with a medium extent and low likelihood. This is due to the potential for accidental spills and discharge of hazardous chemicals (fuel, paints, solvents, etc.) into the surrounding environment. However, by following appropriate BMPs and regulations, the magnitude of these impacts would be low.

Under the No Action Alternative, the amount of hazardous materials/waste generated would more or less remain the same as current levels. Although spills of hazardous materials could occur during other projects in the vicinity of the Port Isabel SPC, they would be cleaned up according to the applicable regulations and any impacts would be localized. Therefore, when considered in tandem with the other projects described in Section 4.0, the No Action Alternative would not contribute to cumulative impacts.

4.5 UTILITIES AND INFRASTRUCTURE

There would be no adverse cumulative impacts to infrastructure and utilities as a result of the Proposed Action in conjunction with other projects, such as the Rio Grande Liquefied Natural Gas Project/Rio Bravo Pipeline. Local area utilities are currently sufficient to provide all services needed but would expand if necessary to accommodate additional utility loads associated with the Proposed Action and local or regional infrastructure additions. Planned upgrades to utilities under the Preferred Alternative would result in long-term, beneficial, cumulative impacts.

4.6 CULTURAL AND HISTORICAL RESOURCES

There would be no adverse cumulative impacts to cultural resources as a result of the Proposed Action or No Action Alternative in conjunction with other projects because no cultural resources have been identified at the project site. The Texas State Historic Preservation Officer (SHPO) concurred with ICE's no historic properties affected determination via a letter dated November 5, 2018.

4.7 AIR QUALITY

The Proposed Action would result in emissions of criteria pollutants and fugitive dust during the construction/demolition phases. Predicted construction/demolition emissions would be less than the federal *de minimis* thresholds for criteria pollutants. Air emissions generated by the projects described in Section 4.0 will likely be minor and temporary and end with the completion of construction activities. Air emissions from any future development projects within and in the vicinity of the SPC are expected to be minor. Therefore, major adverse cumulative impacts are not expected from potential concurrent emissions from the Proposed Action and other planned projects. Fugitive dust would be required to be controlled via state regulations during the Proposed Action and other planned projects. For these reasons, the Proposed Action is not expected to have major adverse cumulative impacts on air quality.

The No Action Alternative would not have any adverse or beneficial cumulative impacts on air quality.

4.8 CLIMATE CHANGE

The Proposed Action would result in emissions of greenhouse gases (GHGs) during the construction/demolition phases. Predicted construction/demolition emissions would represent a miniscule fraction of Texas' annual GHG emissions. GHG emissions generated by past projects (described in Section 4.0) were likely minor and temporary and ended with the completion of construction activities. GHG emissions from any future development projects within and in the vicinity of the SPC are expected to be minor. Therefore, major adverse cumulative impacts are not expected from potential concurrent GHG emissions from the Proposed Action and other planned projects. For these reasons, the Proposed Action is not expected to have major adverse cumulative impacts on climate change.

The No Action Alternative would not have any adverse or beneficial cumulative impacts on climate change.

4.9 NOISE

When considered with other projects occurring or expected to occur in the vicinity of the Port Isabel SPC (including the South Padre Island 2nd Access Project, the Ocelot underpass construction and General Grant Road improvements, and existing noise sources at the Port Isabel SPC, as well as vehicular noise, pistol and rifle firing noise from the firing ranges, and noise from the nearby airport) there would be a high likelihood of short-term and moderate adverse cumulative noise impacts with a localized extent under the Preferred Alternative.

Under the No Action Alternative, no construction or demolition work would occur and therefore, no cumulative adverse noise impacts would be expected.

4.10 HUMAN HEALTH AND SAFETY

Construction activities under the Preferred Alternative could result in the release of diesel fuel, gasoline, paints, and solvents (hazardous materials) into the environment. The environmental contamination due to the disturbance of asbestos and LBPs (i.e., hazardous waste) and the potential presence of lead in the soil at the firing ranges could pose a risk to the health and safety of construction workers, the SPC staff and detainees. Noise levels would increase due to the operation of heavy equipment. However, project specific impacts to human health and safety would be reduced through conformance with applicable regulatory requirements and implementation of appropriate safety measures as required by OSHA. When considered in tandem with the other projects described in Section 4.0, the risk of fuel spills and exposure to unfavorable noise levels in the vicinity of the Port Isabel SPC would be high. Therefore, the cumulative

impacts associated with human health and safety would have a high likelihood of being short-term, adverse, and moderate with a localized extent.

Under the No Action Alternative, the impact to human health and safety would remain the same as current levels. Because the asbestos-containing materials (ACM) and LBPs would not be removed under this alternative, the Port Isabel SPC staff and detainees could be exposed to ACMs and LBPs if the material is disturbed during a future action, resulting in long-term, moderate, and adverse cumulative impact under this alternative.

4.11 SOCIOECONOMICS

When considered in tandem with the construction activities associated with the Proposed Action, proposed construction projects in Cameron County would create both adverse and beneficial, minor cumulative impacts to socioeconomic resources. Cumulative impacts would be large in extent, affecting Cameron County and the surrounding counties. The likelihood of effects is medium (probably below 50 percent), given that the magnitude of cumulative effects depends on the timing and duration of other proposed construction activities in Cameron County.

Cumulative, adverse impacts from increased noise levels, air emissions and congestion could be synergistic if the construction phase of the Proposed Action overlaps with the Ocelot Underpasses/Bayside Drive project, which began construction in June of 2018. Or, area residents may experience time delays over a longer period of time if the construction periods for the Ocelot Underpasses/Bayside Drive, new City Hall and private development in Los Fresnos, Rio Grande Liquefied Natural Gas Project/Rio Bravo Pipeline, and South Padre Island 2nd Access projects occur sequentially. Noise levels in or around Cameron County from the construction projects would not seem exponentially louder or exceed a threshold of significance when considered with the Proposed Action because the projects would not occur at the same place, and noise from construction usually only carries about 1,000 feet. The same idea applies to health and economic benefits from job creation. It is assumed that the abovementioned construction projects would also cause unemployment rates in Cameron County and the surrounding counties to decrease slightly; and compensation of employees in the retail trade and accommodation and food services industries to increase.

When considered with the No Action Alternative, short-and long-term cumulative impacts would be negligible. Cumulative impacts would be large in extent, affecting (or rather, not affecting) Cameron County and the surrounding counties. The likelihood of effects is high because the types of impacts described under the No Action Alternative are not dependent upon the timing and duration of other proposed construction activities in Cameron County.

4.12 ENVIRONMENTAL JUSTICE

When considered in tandem with the construction activities associated with the Proposed Action, proposed construction projects in Cameron County would create both adverse and beneficial, negligible to minor cumulative impacts to minority populations in Census Tract (CT) 123.01. Cumulative, adverse impacts from increased air emissions and congestion could be synergistic if the construction phase overlaps with the Ocelot Underpasses/Bayside Drive project, which began construction in June of 2018. Or, minority populations in CT 123.01 may experience time delays over a longer period of time if the construction periods from for the Ocelot Underpasses/Bayside Drive, new City Hall and private development in Los Fresnos, Rio Grande Liquefied Natural Gas Project/Rio Bravo Pipeline, and South Padre Island 2nd Access projects occur sequentially. The same idea applies to health and economic

beneficial impacts from job creation. Noise levels in or around Cameron County from other construction projects would neither feel exponentially louder nor exceed a threshold of significance when considered with the Proposed Action because the projects would not occur at the same place (and noise from construction usually carries about 1,000 feet). When considered with the operation of the Proposed Action, the abovementioned projects are expected to create negligible, adverse and beneficial cumulative impacts once construction activities are completed. When considered with the No Action Alternative, short- and long-term, cumulative impacts from construction projects in Cameron County would be negligible.

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6.0 GLOSSARY

100-year floodplain – a flood that statistically has a 1-percent chance of occurring in any given year.

500-year floodplain – a flood that statistically has a 0.2-percent chance (or 1 in 500 chance) of occurring in a given year.

Aquifer – a body of permeable rock that can contain or transmit groundwater.

Attainment area – Areas with concentrations of criteria pollutants that are below the levels established by the NAAQS.

Bioswale – landscape element designed to concentrate or remove debris and pollution out of surface runoff water. They consist of a swaled drainage course with gently sloped sides (less than 6 percent) and filled with vegetation, compost and/or riprap.

Brackish – slightly salty, as is the mixture of river water and seawater in estuaries.

Conditionally Exempt Small Quantity Generator – A facility is a CESQG if it generates the following amounts and types of waste:

- Less than 220 pounds of hazardous waste per month
- No more than 2.2 pounds of acutely hazardous waste per month, or
- More than 220 pounds of Class 1 nonhazardous waste per month

Criteria pollutant – Six pollutants that can harm human health and the environment and cause property damage. They are regulated by the Clean Air Act.

Critical Habitat – Specific geographic areas that contain features essential to the conservation of endangered or threatened species and that may require special management and protection.

Cultural resources – All sites, buildings, structures, districts, and objects as defined by the National Historic Preservation Act, as amended.

Ecoregion – An area defined by its environmental conditions, especially climate, landforms and soil characteristics.

Endangered Species (Federal) – Species that are in danger of extinction throughout all or a significant portion of their ranges and that have been listed as endangered by the U.S. Fish and Wildlife Service or the National Marine Fisheries Service following procedures outlined in the Endangered Species Act (Title 16 USC Part 1531 et seq.) and its implementing regulations (Title 50 CFR § 424). The lists of endangered species can be found in 50 CFR § 17.11 (wildlife), § 17.12 (plants) and § 222.23(a) (marine organisms).

Freshwater emergent wetland – a freshwater-based area characterized by erect, rooted, herbaceous hydrophytes, excluding mosses and lichens. This vegetation is present for most of the growing season in most years. These wetlands are usually dominated by perennial plants.

Greenhouse Gas – Gases that trap heat in the atmosphere by absorbing outgoing infrared radiation. Greenhouse gas emissions occur from natural processes and human activities.

Hypersaline – Water that contains significant concentrations of sodium chloride or other salts, with saline levels surpassing that of ocean water.

Invasive Species – These are species that are 1) non-native (or alien) to the ecosystem under consideration and 2) whose introduction causes or is likely to cause economic or environmental harm or harm to human health.

Maintenance area – Nonattainment areas that meet the NAAQS and the redesignation requirements in the Clean Air Act are redesignated as maintenance areas.

Migratory Bird Treaty Act – This act (Title 16 of USC Part 703 et seq.) states that it is unlawful to pursue, take, attempt to take, capture, possess or kill any migratory bird or any part nest, or egg of any such bird unless permitted by regulations.

Munition Response Site – A discrete location known to require a munitions response.

Munitions and Explosives of Concern – Military munitions that may pose unique explosives safety risks, including unexploded ordnance, discarded military munitions, or munitions constituents present in high enough concentrations to pose an explosive or other health hazard.

Munitions Constituents – Any materials originating from unexploded ordnance, discarded military munitions, or other military munitions, including explosive and nonexplosive materials, and emission, degradation, or breakdown elements of such ordnance or munitions.

Munitions Debris – Remnants of munitions (e.g., penetrators, projectiles, shell casings, links, fins) remaining after munitions use, demilitarization, or disposal.

Nonattainment area – Areas where the concentration of one or more criteria pollutants is found to exceed the regulated level for one or more of the NAAQS.

Saline – containing or impregnated with salt.

Soils – The unconsolidated material overlying bedrock.

Waters of the U.S. – streams and wetlands which have a significant hydrological and ecological connection to traditional navigable waters, interstate waters, and territorial seas.

Xeric – Containing little moisture; very dry.