Draft Final

Homestead Air Reserve Base
Miami-Dade County, Florida

Environmental Assessment for the Construction of a Corrosion Facility/Wash Rack

May 2020

Prepared for
U.S. Air Force Reserve Command

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Executive Summary

This environmental assessment (EA) was developed to evaluate the impacts of constructing a corrosion facility/wash rack at Homestead Air Reserve Base (ARB), Homestead, Florida. The proposed corrosion facility/wash rack would consist of a single-story, two-bay aircraft hangar with support spaces for corrosion mitigation, maintenance, and wash rack functions, as well as offices, training rooms, and restrooms. The existing taxi lane would be extended to the proposed corrosion facility/wash rack for aircraft maneuvering.

This EA was prepared to evaluate the potential environmental consequences of the Proposed Action and alternatives, in accordance with the provisions of *Code of Federal Regulations* (CFR), Title 32, Part 989, and 40 CFR Parts 1500 through 1508 (Council on Environmental Quality's [CEQ's] National Environmental Policy Act [NEPA] implementing regulations), and Air Force Instruction (AFI) 32-7061, *Environmental Impact Analysis Process*.

ES.1 Purpose and Need

The purpose of the Proposed Action is to provide a corrosion facility/wash rack that accommodates mission readiness and the health and welfare of personnel. The proposed corrosion facility/wash rack is needed to meet the demands of Homestead ARB units for corrosion mitigation/maintenance and aircraft washing. The coastal location of Homestead ARB is a high salt environment that requires aggressive preventative maintenance to ensure the aircraft remain mission-capable.

The current corrosion facility is not compliant with Unified Facilities Criteria (UFC) 4-211-02, *Aircraft Corrosion Control and Paint Facilities* (1 December 2012) standards for personnel access and decontamination, creating health and safety risks for workers. Additional protective measures to counter these risks reduces worker efficiency. The facility cannot be upgraded to meet UFC 40-211-02 standards. This facility has a direct negative effect to human health and the environment from the use and generation of hazardous materials and solid waste that occur due to corrosion personnel working in an inadequate facility. Therefore, the proposed facility is needed to properly protect workers, improve worker efficiency, and to provide a facility that is compliant with UFC 4-211-02. Aircraft washing in the current wash rack, which is an open-sided structure, is spatially separate from the inadequate corrosion control function and results in a reduction of operational efficiency.

ES.2 Proposed Action

The Proposed Action is to establish a corrosion facility/wash rack that is compliant with UFC 4-211-02. The Proposed Action is the Preferred Alternative and includes the construction and operation of a corrosion facility/wash rack two-bay hangar facility for aircraft corrosion mitigation/maintenance and wash rack functions. The project will include a reinforced concrete foundation, concrete slab, structural steel frame, roofing, lightning protection system, exterior, electrical work, site improvements, utilities, fire detection/protection, wash water retention, worker fall protection, bridge cranes, and the necessary supporting facilities and controls for a complete and usable facility. The proposed facility would have individual work surfaces, restrooms, lockers, transfer and changing areas, showers, a break area, offices, computer training area, and two corrosion (maintenance)/wash bays.

The proposed facility would include support areas such as a bead blast room and a paint shop room, with a paint booth for painting smaller pieces. These spaces are considered the "dirty" shops, and these functions, along with the corrosion control hangar bay, must be segregated from the rest of the building. This separation would be achieved by providing a personal protective equipment cleaning room that would lead to the "dirty" toilet/shower areas for men and women and then transition to the "clean" toilet areas, and then to the other "clean" areas of the building.

An access road, a minimum of 5.4 meters wide (17.7 feet), would be constructed behind and on both sides of the proposed hangar to accommodate fire and emergency traffic. There would be an asphalt area behind the hangar to accommodate the access road, the Hopper, various dumpsters, and storage and delivery areas. While sidewalks, parking lots, and a new access gate could be constructed in the

future, they are not included under this Proposed Action and would require a separate, site-specific environmental review prior to construction, which would include additional NEPA analysis.

A new manhole wastewater sewer line would be constructed to accommodate the discharge of the maintenance facility's sewage. Greywater would discharge through the existing oil/water separator (OWS) for discharge into the existing wastewater sewer line. An existing potable water main onsite would be relocated and adapted to the proposed site. The existing drainage canal would be used for stormwater discharge and conveyance. The existing electrical underground line would be relocated to accommodate the facility.

This newly constructed, modernized facility would increase efficiency and comply with current building codes and standards, including UFC 4-211-02 and other applicable federal, state, and local requirements.

The area of disturbance, also referred to as the project area, is shown on Figure 2-1. The proposed project area would be sited adjacent to the maintenance apron on the vacant land immediately north of, and adjacent to, Building 4709 (Wash Rack) and south of the existing perimeter security gate. The site design was developed to avoid existing monitoring wells, an OWS, and a drainage canal. In addition, the site design avoids or minimizes encroachment into a known population of the federally endangered Small's milkpea *(Galactia smallii)*. Small's milkpea populations will be visibly marked and fenced to prevent inadvertent entry by equipment. The federally endangered Florida bonneted bat (*Eumops floridanus*) is known to occur in the area. Because the U.S. Fish and Wildlife Service (USFWS) determined there are no potential roost areas in the proposed project site during a 2018 site visit (Friers, pers. comm., 2020), there would be no effects on the species.

The existing open-sided wash rack structure would be retained to provide a back-up wash rack in case additional planes are added to the mission or for transient planes temporarily assigned to the installation.

The current corrosion function, is in Hangar Building 194 and is a paint booth placed within the center bay. Once the proposed corrosion facility/wash rack is operational, Hangar Building 194 would be reverted to its prior use.

Up to 1.5 acres, including land already covered by asphalt, would be disturbed for construction of the proposed corrosion facility/wash rack. Of that 1.5 acres, 0.6 acre of urban land (currently mowed grass and scattered palm trees and shrubs) would be converted to impervious surfaces.

ES.3 Alternatives

ES.3.1 Alternatives Considered in Detail

ES.3.1.1 Preferred Alternative

The Proposed Action is the Preferred Alternative and is described in Section ES.2.

ES.3.1.2 No Action Alternative

The No Action Alternative represents baseline conditions, which are used for comparison to future conditions that would exist under the Proposed Action. Under the No Action Alternative, a modernized corrosion facility/wash rack would not be established and corrosion mitigation/maintenance would continue to operate out of substandard facilities that are not compliant with UFC 4-211-02 standards for personnel access and decontamination. Corrosion mitigation would continue to be operated out of a facility with inadequate areas, resulting in minor direct impacts to human health and/or the environment from the use or generation of hazardous materials, and solid waste would occur. Aircraft maintenance would continue to be executed in inadequate facilities, resulting in minor direct impacts to human health and/or the environment from the use or generation of hazardous materials, and solid waste would occur. Aircraft washing would be conducted in the current wash rack, which is an open-sided structure. Aircraft washing would continue to be separate from the corrosion control function, which would reduce operational efficiency. There would be no impacts from constructing and operating a corrosion

facility/wash rack. Under the No Action Alternative, the continuation of current conditions would reduce operational efficiency and would be noncompliant with UFC 4-211-02.

ES.3.2 Alternatives Considered but Eliminated

An additional location approximately 0.25-mile southeast of the Preferred Alternative location was considered for the Proposed Action. It was eliminated from consideration because that land is needed for other mission-critical activities.

ES. 4 Summary of Environmental Consequences and Conservation Measures

This EA contains a comprehensive evaluation of the existing conditions and environmental consequences (direct, indirect, and cumulative) of implementing the Proposed Action's Preferred Alternative and the No Action Alternative, as required by NEPA. Table ES-1 summarizes the effects of the Preferred Alternative and the No Action Alternative. An explanation of the impact terminology used in Table ES-1 is provided in Section 4, *Environmental Consequences*.

Table ES-1. Summary of Environmental Impacts for the Preferred Alternative and the No Action Alternative

Impact Category	Preferred Alternative Degree of Impact			No Action Alternative Degree of Impact			EA Section Where Details are Discussed
	Significant	Insignificant	No Impact	Significant	Insignificant	No Impact	
Land Use			X			X	Section 3.1.1
Geologic Resources			X			X	Section 3.1.2
Topography			X			X	Section 3.1.3
Wetlands and Floodplains			X			X	Section 3.1.4
Coastal Resources			X			X	Section 3.1.5
Airspace			X			X	Section 3.1.6
Socioeconomics			X			X	Section 3.1.7
Environmental Justice			X			X	Section 3.1.8
Protection of Children			X			X	Section 3.1.9
Soils		X			X		Sections 3.2.1 and 4.1.1
Water Resources		X			X		Sections 3.2.2 and 4.1.2
Biological Resources		X			X		Sections 3.2.3 and 4.1.3
Air Quality		X			X		Sections 3.2.4 and 4.1.4
Cultural Resources		X			X		Sections 3.2.5 and 4.1.5
Noise		X			X		Sections 3.2.6 and 4.1.6
Hazardous Materials and Solid Waste		X			X		Sections 3.2.7 and 4.1.7
Aesthetic and Visual Resources		X			X		Sections 3.2.8 and 4.1.8
Traffic and Transportation		X			X		Sections 3.2.9 and 4.1.9
Safety and Occupational Health		X			X		Sections 3.2.10 and 4.1.10
Utilities and Infrastructure		X			X		Sections 3.2.11 and 4.1.11

The following best management practices (BMPs) and mitigation/conservation measures would be implemented under the Preferred Alternative:

- Stormwater impacts to runoff would be reduced by reseeding disturbed areas, incorporating low-maintenance plant species, installing sediment fencing, applying water to disturbed soil, and limiting soil disturbance only to areas where construction is proposed. Temporary detention basins would be incorporated, as necessary, into the design to manage large quantities of stormwater. A stormwater permit from South Florida Water Management District would be obtained prior to construction activities.
- Air quality impacts would be reduced by applying water to, or using other stabilization measures on, areas of bare soil or soil piles, creating wind breaks, and covering dump trucks that transport materials that could become airborne.
- Contractors would maintain construction equipment in accordance with manufacturers' specifications to keep unnecessary noise impacts and air emissions to a minimum.
- BMPs to reduce soil and water resource impacts would be selected based on site-specific conditions and could include, but would not be limited to, sediment barriers (silt fence or straw wattles), temporary detention basins, mulching of exposed soils, and prompt revegetation of disturbed areas.
- Safety and occupation health impacts would be reduced by segregating the "dirty shops," such as the bead blast areas and corrosion control hangar bay, from the rest of the buildings by providing a personal protective equipment cleaning room that would lead to the "dirty" toilet/shower areas for men and women and then transition to the "clean" toilet areas, and then to the other "clean" areas of the building.
- Small's milkpea is present on the parcel, but it is expected the site design would avoid any populations of the federally endangered plant. Small's milkpea populations will be visibly marked and fenced to prevent inadvertent entry by equipment. If encroachment into the Small's milkpea populations is unavoidable due to site layout, then additional consultation with USFWS will determine appropriate management activities to reduce the potential impacts to this federally protected species.
- Construction would primarily occur on weekdays during daylight hours. Construction may also occur occasionally during daylight hours on weekends.
- Temporary fencing would be installed around the construction site to prevent unauthorized access to the active construction zone.
- If any unanticipated discoveries of archaeological resources or cultural items were to occur, work would be temporarily halted at the discovery site until appropriate notifications and consultations were complete, and procedures were in place to minimize adverse effects and/or render disposition of cultural items.
- During construction, signs would be placed on Westover Boulevard to alert drivers to changes in traffic patterns and trucks entering and exiting the road.

ES.5 Public and Stakeholder Involvement

The NEPA process is designed to inform the public of the potential environmental consequences of the Proposed Action and involve them in the federal decision-making process. The Intergovernmental Coordination Act and Executive Order 12372, "Intergovernmental Review of Federal Programs," require federal agencies to cooperate with and consider state and local laws when implementing federal actions. Formal notification and opportunities for public participation, as well as informal coordination with government agencies and planners, are incorporated into the EA process. Section 5.2 of this EA contains a list of the federal, state, and local agencies that were invited to review and comment on the draft final EA and the draft final Finding of No Significant Impact (FONSI).

The draft final EA and draft final FONSI were made available to the public for review and comment for a period of 30 days. The public notice was published in the *Miami Herald* and *Community Newspapers*, the Homestead edition. The draft final EA and draft final FONSI were made available on the Internet at https://www.homestead.afrc.af.mil/About-Us/SusOps/.

In consideration of the potential impact of the ongoing coronavirus (COVID-19) pandemic on the usual methods of access to information and ability to communicate, such as the mass closure of local public libraries and challenges with the sufficiency of an increasingly-overburdened internet, the U.S. Air Force encourages members of the public and all interested stakeholders to contact us directly by email or telephone to discuss and resolve issues involving access to the draft final EA and FONSI or the ability to comment.

ES.6 Conclusion/Recommendation

Based on the findings of this EA, there would be no significant impact resulting from the Proposed Action's Preferred Alternative. A FONSI was prepared to accompany this EA, which concludes that preparation of an environmental impact statement is not required for this Proposed Action.

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Appendixes

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Acronyms and Abbreviations

µg/m^3	micrograms per cubic meter
482 FW	482nd Fighter Wing
AFCEE	Air Force Center for Environmental Excellence
AFI	Air Force Instruction
AFPAM	Air Force Pamphlet
AFRC	Air Force Reserve Command
AICUZ	Air Installation Compatible Use Zone
amsl	above mean sea level
AOC	area of concern
APE	Area of Potential Effects
APZ	accident potential zones
ARB	Air Reserve Base
BMP	best management practice
CAA	Clean Air Act
CBP	U.S. Customs and Border Protection
CEQ	Council on Environmental Quality
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	*Code of Federal Regulations*
CH2M	CH2M HILL, Inc.
CO	carbon monoxide
CWA	Clean Water Act
CZ	clear zone
dB	decibels
dBA	A-weighted decibels
DoD	U.S. Department of Defense
EA	environmental assessment
EIAP	Environmental Impact Analysis Process
EIS	environmental impact statement
EO	Executive Order
EPA	U.S. Environmental Protection Agency
ESA	Endangered Species Act
FANG	Florida Air National Guard
FDEP	Florida Department of Environmental Protection
FONPA	finding of no practicable alternative
FONSI	finding of no significant impact
FPL	Florida Power and Light Company
FW	Fighter Wing

GHG	greenhouse gas
HAFB	Homestead Air Force Base
HARS	Homestead Air Reserve Station
HWMP	*Hazardous Waste Management Plan*
INRMP	Integrated Natural Resource Management Plan
IRC	The Institute for Regional Conservation
IRP	Installation Restoration Program
MBTA	Migratory Bird Treaty Act
mgd	million gallons per day
MMRP	Military Munitions Response Program
NA	not applicable
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
NSR	New Source Review
O_3	ozone
O&M	operations and maintenance
OU	operable unit
OWS	oil/water separator
pCi/L	picocuries per liter
$PM_{2.5}$	particulate matter less than or equal to 2.5 micrometers in diameter
PM_{10}	particulate matter less than or equal to 10 micrometers in diameter
POL	petroleum, oil, and lubricants
ppm	parts per million
SFWMD	South Florida Water Management District
SHPO	State Historic Preservation Office
SO_2	sulfur dioxide
SOCSOUTH	Special Operations Command South
SWMU	solid waste management unit
U.S.C.	*United States Code*
UFC	Unified Facilities Criteria
USACE	U.S. Army Corps of Engineers
USAF	U.S. Air Force
USFWS	U.S. Fish and Wildlife Service
VOC	volatile organic compound
WASD	Miami-Dade Water and Sewer Department

1. Introduction

This environmental assessment (EA) was developed to evaluate the impacts of constructing a corrosion facility/wash rack at Homestead Air Reserve Base (ARB), Homestead, Florida. The proposed corrosion facility/wash rack would consist of a single-story, two-bay aircraft hangar with support spaces for corrosion mitigation, maintenance, and wash rack functions, as well as offices, training rooms, and restrooms. The existing taxi lane would be extended to the proposed corrosion facility/wash rack for aircraft maneuvering.

This EA was prepared to evaluate the potential environmental consequences of the Proposed Action and alternatives, in accordance with the provisions of *Code of Federal Regulations* (CFR), Title 32, Part 989, and 40 CFR Parts 1500 through 1508 (Council on Environmental Quality's [CEQ's] National Environmental Policy Act [NEPA] implementing regulations), and Air Force Instruction (AFI) 32-7061, *Environmental Impact Analysis Process* (EIAP).

1.1 Background

Homestead ARB occupies 1,943 acres of land in unincorporated southern Miami-Dade County, approximately 25 miles southwest of Miami and approximately 4 miles east of the center of the city of Homestead (Figure 1-1).

In 1992, most of the facilities on Homestead Air Force Base (HAFB) were destroyed by Hurricane Andrew. In 1994, a portion of the former HAFB was realigned to Homestead Air Reserve Station (HARS) under the U.S. Department of Defense (DoD) Base Closure and Realignment Commission. HARS became Homestead ARB in 2003. The remaining acres of the former HAFB were divided into parcels and transferred to other entities.

The 482nd Fighter Wing (482 FW), the host unit of Homestead ARB, supports contingency and training operations of the U.S. Southern Command and a number of tenant units, including Headquarters Special Operations Command South (SOCSOUTH), the U.S. Coast Guard Maritime Safety and Security Team, and an air and maritime unit of the U.S. Customs and Border Protection (CBP). In addition, Homestead ARB is home to the most active North American Aerospace Defense Command alert site in the continental United States, operated by a detachment of F-15 fighter interceptors from the 125 FW of the Florida Air National Guard.

The 482 FW continues to provide the DoD with an efficient, cost-effective ARB on the rim of the Caribbean Basin. Its strategic presence at the southernmost tip of the continental United States provides an invaluable platform from which to launch its full range of capabilities.

1.2 Purpose and Need

The purpose of the Proposed Action is to provide a corrosion facility/wash rack that accommodates mission readiness and the health and welfare of personnel. The proposed corrosion facility/wash rack is needed to meet the demands of Homestead ARB units for corrosion mitigation/maintenance and aircraft washing. The coastal location of Homestead ARB is a high salt environment that requires aggressive preventative maintenance to ensure the aircraft remain mission-capable.

The current corrosion facility is not compliant with Unified Facilities Criteria (UFC) 4-211-02, *Aircraft Corrosion Control and Paint Facilities* (1 December 2012) standards for personnel access and decontamination, creating health and safety risks for workers. Additional protective measures to counter these risks reduces worker efficiency. The facility cannot be upgraded to meet UFC 40-211-02 standards. This facility has a direct negative effect on human health and the environment from the use and generation of hazardous materials and solid waste that occur due to corrosion personnel working in an inadequate facility. Therefore, the proposed facility is needed to properly protect workers, improve worker efficiency, and to provide a facility that is compliant with UFC 4-211-02. Aircraft washing in the current open-sided wash rack is spatially separate from the inadequate corrosion control function, reducing operational efficiency.

1.3 Relevant Plans, Laws, and Regulations

A decision on whether to proceed with the Proposed Action depends on numerous factors, including mission requirements, regulatory requirements, and environmental considerations. In addressing environmental considerations, the U.S. Air Force Reserve Command (AFRC) and Homestead ARB are guided by relevant statutes and regulations for implementation and Executive Orders (EOs) that establish standards and provide guidance on environmental and natural resources management and planning.

1.4 Summary of Key Environmental Compliance Requirements

1.4.1 National Environmental Policy Act

NEPA (42 *United States Code* [U.S.C.] Sections 4321 through 4347) is a federal statute requiring the identification and analysis of potential environmental impacts associated with proposed federal actions before those actions are taken. The intent of NEPA is to allow decision makers to make well-informed decisions, based on understanding the potential environmental consequences, and take actions to protect, restore, or enhance the environment. NEPA established the CEQ, which was charged with developing and implementing regulations and ensuring federal agency compliance with NEPA. The CEQ regulations mandate that all federal agencies use a prescribed structured approach to environmental impact analyses. This approach also requires federal agencies to use an interdisciplinary and systematic approach in their decision-making processes. The approach evaluates potential environmental consequences associated with a proposed action and considers alternative courses of action.

The process for implementing NEPA is codified in 40 CFR Parts 1500 through 1508, *Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act*. The CEQ was established to implement and oversee federal policy in this process. The CEQ regulations specify that an EA must be prepared to provide evidence and analysis for determining whether to prepare a finding of no significant impact (FONSI) or an environmental impact statement (EIS). The EA can aid in an agency's compliance with NEPA when an EIS is unnecessary and facilitate preparation of an EIS when one is required.

Air Force Policy Directive 32-70, *Environmental Quality*, states that the U.S. Air Force (USAF), which includes AFRC, will comply with applicable federal, state, and local environmental laws and regulations, including NEPA. The USAF's implementing regulation for NEPA is its EIAP (32 CFR Part 989, as amended).

1.4.2 Integration of Other Environmental Statutes and Regulations

To comply with NEPA, the planning and decision-making process for actions proposed by federal agencies involves a study of other relevant environmental statutes and regulations. The NEPA process, however, does not replace procedural or substantive requirements of other environmental statutes and regulations. It addresses them collectively, which enables the decision maker to have a comprehensive view of major environmental issues and requirements associated with a proposed action. According to CEQ regulations, the requirements of NEPA can be integrated "with other planning and environmental review procedures required by law or by agency practice so that all such procedures run concurrently rather than consecutively" (40 CFR Section 1500.2[c]).

Applicable federal statutes include the Clean Water Act (CWA), Clean Air Act (CAA), Coastal Zone Management Act, Fish and Wildlife Coordination Act of 1958, Endangered Species Act (ESA), National Historic Preservation Act (NHPA), Safe Drinking Water Act, Resource Conservation and Recovery Act, Migratory Bird Treaty Act, Migratory Bird Conservation Act, and the Water Resource Development Act. The NEPA analysis also considers compliance with EOs related to the protection of wetlands, environmental justice, and management of floodplains and invasive species.

The CAA establishes federal policy to protect and enhance the quality of air resources to protect human health and the environment. The CAA requires that adequate steps be implemented to control the release of air pollutants and prevent significant deterioration of air quality.

The CWA of 1977 (33 U.S.C. Section 1344) and the Water Quality Act of 1987 (33 U.S.C. Section 1251, as amended) establish federal policy to restore and maintain the chemical, physical, and biological integrity of the nation's waters and, where attainable, to achieve a level of water quality that provides for the protection and propagation of fish, shellfish, wildlife, and recreation in and on the water. The U.S. Army Corps of Engineers (USACE) has authority for compliance with Section 404 of the CWA. The U.S. Environmental Protection Agency (EPA) regulations require that nonpoint source stormwater discharges related to the Proposed Action or alternatives comply with the requirements of a National Pollutant Discharge Elimination System permit, including a stormwater pollution prevention plan detailing site-specific best management practices (BMPs). Section 404 of the CWA requires specific permitting for dredging and/or filling wetlands. This portion of the CWA is administered by USACE with EPA oversight. Section 401 of the CWA requires certification of water quality for Section 404 discharges. Florida Department of Environmental Protection administers the Section 401 program. However, a USACE CWA Section 404 permit for dredge and fill activities within waters of the United States is not anticipated for the Proposed Action. In addition to CWA requirements, USAF actions must comply with EO 11990, "Protection of Wetlands," and EO 11988, "Floodplain Management." When one or both of these EOs apply, a finding of no practicable alternative (FONPA) must be completed if it is determined that there is no practicable alternative to implementing an action that would impact the wetland or floodplain. The FONPA finding is based on the NEPA analysis and documented in the NEPA decision document.

The ESA of 1973 (16 U.S.C. Section 1531) requires that federal agencies, in consultation with the U.S. Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service, use their authority to assist in carrying out federal programs for the conservation of threatened or endangered species. These agencies also ensure that any project that is funded, authorized, or constructed by the federal government is not likely to jeopardize the continued existence of such threatened or endangered species or result in the destruction or adverse modification of their habitat. USFWS was consulted regarding the potential for the Preferred Alternative to affect protected federally species or their habitats.

Actions that could affect cultural resources are regulated under Section 106 of the NHPA of 1966 and the Advisory Council on Historic Preservation Regulations for compliance with Section 106, codified as 36 CFR Part 800. These regulations require that the effects of federal actions on cultural resources be considered and minimized. The State Historic Preservation Office (SHPO) regulates the preservation of cultural resources in Florida and was consulted regarding potential cultural resources that could be affected by the Proposed Action. This EA process will satisfy the Section 106 consultation requirements, as specified by 36 CFR Part 800. If the federal agency determines that the undertaking is a type of activity that does not have the potential to cause effects on historic properties, then there is no further Section 106 responsibility. Previous consultations with SHPO have determined that there are no recorded archaeological sites or historic structures at Homestead ARB (Florida SHPO, 1993). Additionally, the three federally recognized tribes that have ancestral ties to lands in southern Florida were consulted under Section 106. The tribes notified were the Seminole Tribe of Florida, Seminole Nation of Oklahoma, and Miccosukee Tribe of Indians of Florida.

1.4.3 Interagency Coordination and Public Involvement

NEPA ensures that environmental information is made available to the public during the decision-making process and prior to actions being taken. The premise of NEPA is that the quality of federal decisions will be enhanced if proponents provide information on their actions to state and local governments and the public and involve these entities in the planning process. The Intergovernmental Coordination Act and EO 12372, "Intergovernmental Review of Federal Programs," require federal agencies to cooperate with and consider state and local views in implementing a federal proposal.

The SHPO, USFWS, Biscayne National Park, National Park Service, Everglades National Park, and three federally recognized tribes were contacted during development of this EA to discover whether they have issues relevant to the Proposed Action. Information that they provide will be incorporated into the EA. Copies of coordination and consultation letters are presented in Appendix A of this EA.

A notice was published in the *Miami Herald* on March 29 and 30, and *South Dade News Leader* on March 27, to inform the public of the preparation of this EA (Appendix B). A notice of the availability of the draft final EA and draft final FONSI will be published to initiate the 30-day public review period for the Draft EA and Draft FONSI.

In consideration of the potential impact of the ongoing coronavirus (COVID-19) pandemic on the usual methods of access to information and ability to communicate, such as the mass closure of local public libraries and challenges with the sufficiency of an increasingly-overburdened internet, the USAF encourages members of the public and all interested stakeholders to contact us directly by email or telephone to discuss and resolve issues involving access to the draft final EA and FONSI or the ability to comment.

Public and agency comments received during the 30-day review period will be considered in developing the final EA.

2. Description of Proposed Action and Alternatives

2.1 Proposed Action

The Proposed Action is to establish a corrosion facility/wash rack that is compliant with UFC 4-211-02. The Proposed Action is the Preferred Alternative and includes the construction and operation of a corrosion facility/wash rack two-bay hangar facility for aircraft corrosion mitigation/maintenance and wash rack functions. The project will include a reinforced concrete foundation, concrete slab, structural steel frame, roofing, lightning protection system, exterior, electrical work, site improvements, utilities, fire detection/protection, wash water retention, worker fall protection, bridge cranes, and all necessary supporting facilities and controls for a complete and usable facility. The proposed facility would have individual work surfaces, restrooms, lockers, transfer and changing areas, showers, break area, offices, computer training area, and two corrosion (maintenance)/wash bays.

The proposed facility would include support areas such as a bead blast room and a paint shop room, with a paint booth for painting smaller pieces. These spaces are considered the “dirty” shops, and these functions, along with the corrosion control hangar bay, must be segregated from the rest of the building. This separation would be achieved by providing a personal protective equipment cleaning room that would lead to the “dirty” toilet/shower areas for men and women and then transition to the “clean” toilet areas, and then to the other “clean” areas of the building.

An access road, a minimum of 5.4 meters wide (17.7 feet), would be constructed behind and on both sides of the proposed hangar to accommodate fire and emergency traffic. There would be an asphalt area behind the hangar to accommodate the access road, the Hopper, various dumpsters, and storage and delivery areas. While sidewalks, parking lots, and a new access gate could be constructed in the future, they are not included under this Proposed Action and would require a separate site-specific environmental review prior to construction, which would include additional NEPA analysis.

A new manhole wastewater sewer line would be constructed to accommodate the discharge of the maintenance facility’s sewage. Greywater would discharge through the existing oil/water separator (OWS) for discharge into the existing wastewater sewer line. A lift station may be needed for greywater and a sewage grinder pump may be needed to transmit wastewater. An existing potable water main onsite would be relocated and adapted to the proposed site. The existing drainage canal would be used for stormwater discharge and conveyance. The existing electrical underground line would be relocated to accommodate the facility.

This newly constructed, modernized facility would increase efficiency and comply with current building codes and standards, including UFC 4-211-02 and other applicable federal, state, and local requirements.

The area of disturbance, also referred to as the project area, is shown on Figure 2-1. The proposed project area would be sited adjacent to the maintenance apron on the vacant land immediately north of, and adjacent to, Building 4709 (Wash Rack) and south of the existing perimeter security gate. The site design was developed to avoid existing monitoring wells, an OWS, and a drainage canal. In addition, the site design avoids or minimizes encroachment into a known population of the federally endangered Small’s milkpea *(Galactia smallii)*. Small’s milkpea populations will be visibly marked and fenced to prevent inadvertent entry by equipment. The federally endangered Florida bonneted bat (*Eumops floridanus*) is known to occur in the area. Because the USFWS determined there are no potential roost areas in the proposed project site during a 2018 site visit (Friers, pers. comm., 2020), there would be no effects on the species.

The existing open-sided wash rack structure would be retained to provide a back-up wash rack in case additional planes are added to the mission or if transient planes are temporarily assigned to the installation.

The current corrosion function is in Hangar Building 194, and is a paint booth placed within the center bay. Once the proposed corrosion facility/wash rack is operational, Hangar Building 194 would be reverted to its prior use.

Cement trucks and earth-moving equipment, such as bulldozers and dump trucks, would be used for the construction.

Up to 1.5 acres of land, including land already covered by asphalt, would be disturbed for construction of the proposed corrosion facility/wash rack. Of that 1.5 acres, 0.6-acre of urban land (currently mowed grass and scattered palm trees and shrubs) would be converted to impervious surfaces.

2.2 Alternatives

2.2.1 Alternatives Considered in Detail

2.2.1.1 Preferred Alternative

The Proposed Action is the Preferred Alternative and is described in Section 2.1.

2.2.1.2 No Action Alternative

Under the No Action Alternative, a modernized corrosion facility/wash rack would not be established and corrosion mitigation/maintenance would continue to operate out of substandard facilities that are not compliant with UFC 4-211-02 standards for personnel access and decontamination. Corrosion mitigation would continue to be operated out of a facility with inadequate areas, resulting in minor direct impacts to human health and/or the environment from the use or generation of hazardous materials, and solid waste would occur. Aircraft maintenance would continue to be executed in inadequate facilities, resulting in minor direct impacts to human health and/or the environment from the use or generation of hazardous materials, and solid waste would occur. Aircraft washing would be conducted in the current wash rack, which is an open-sided structure, would continue to be separate from the corrosion control function, reducing operational efficiency. There would be no impacts from constructing and operating a corrosion facility/wash rack. Under the No Action Alternative, the continuation of current conditions would reduce operational efficiency and would be noncompliant with UFC 4-211-02.

2.2.2 Alternatives Considered but Eliminated from Further Consideration

An additional location approximately 0.25-mile southeast of the Preferred Alternative location was considered for the Proposed Action. It was eliminated from consideration because that land is needed for other mission-critical activities.

3. Existing Environmental Conditions

3.1 Resources Eliminated from Further Consideration

Initial review of the Proposed Action determined that there would be no potential for significant effects on certain resources. Accordingly, those resources are not considered in the effects analysis. The following sections identify the resources eliminated from consideration and provide the rationale for their elimination.

3.1.1 Land Use

Homestead ARB encompasses 1,943 acres or approximately 3 square miles. Land use generally is divided into the airfield, the ammunition storage area and safety buffer associated with the explosives safety clear zone arcs, and the urban/industrialized area. Land use in the immediate vicinity of Homestead ARB is a mixture of commercial, residential, and agricultural parcels. (CH2M HILL, Inc. [CH2M], 2015)

The airfield includes the runway, taxiways, aircraft parking aprons, alert areas, and arm/disarm areas. Homestead ARB has one active runway, 300 feet wide by 11,200 feet long, with a northeast-southwest orientation.

The western portion of the base contains the ammunition storage areas and is therefore within the explosives safety clear zone arcs and is largely unimproved.

The urban/industrialized areas function as the urban core of the base and houses two major tenant commands (SOCSOUTH and Florida Air National Guard [FANG]). It includes aviation support facilities (hangars and maintenance workshops), fuel storage, administrative facilities, and military personnel support facilities. Aircraft operations and maintenance (O&M) occupies the aviation support facilities in the industrial area near airfield pavement.

The proposed project site is a vacant lot in the urban/industrialized areas and is adjacent to the maintenance apron, north of, and adjacent to, Building 4709 (Wash Rack) and south of the existing perimeter security gate. The vacant lot includes approximately 0.6-acre of urban land (currently mowed grass and scatter palm trees and shrubs) and is bound by a drainage canal and the existing wash rack to the southwest and the maintenance apron to the east.

The proposed project site is located in the urban/industrialized area of Homestead ARB. Up to 1.5 acres of land, which includes land already covered by asphalt, would be disturbed for construction of the proposed corrosion facility/wash rack. Of that 1.5 acres, 0.6-acre of urban land (currently mowed grass and scattered palm trees and shrubs) would be converted to impervious surfaces.

The Preferred Alternative would occur within the urban/industrialized area on land currently designated for military use. No modifications or changes to existing land uses would occur as a result of the Proposed Action and no changes in use of adjacent land would occur. The Proposed Action would be compatible with the existing land uses in the vicinity and there would be no impact to land use. The No Action alternative would not impact land use. Because there would be no effects on land use from either the Proposed Action or the No Action Alternative, this resource does not warrant further consideration and is excluded from further consideration.

3.1.2 Geologic Resources

Geologic resources consist of the earth's surface and subsurface materials. The geology of south Florida is characterized by carbonate rocks (limestone and dolostone) overlain by a thin veneer of soil. Homestead ARB is situated on a geological formation called the Miami Limestone, a marine-derived limestone of Pleistocene age. The Miami Limestone is porous, and outcrops generally display irregular karst topography (Hilsenbeck, 1993).

The Proposed Action and No Action Alternative would not affect underlying geology or mineral resources, as disturbance would generally be limited to surface grading and minor alterations to shallow geology.

The potential for karst landform formation, such as sinkholes, is minimal and the potential for seismic activity is negligible at Homestead ARB (USAF, 2000). The Proposed Action and No Action Alternative would not affect karst landforms or result in seismic activity. Therefore, the alternatives would have no effects related to the exposure of people or structures to the risk of loss, injury, or death from seismic activity or sinkholes because of the limited potential for the Proposed Action or No Action Alternative to pose a safety risk. Because there would be no effects on geologic resources from either the Proposed Action or the No Action Alternative, this resource does not warrant further consideration and is excluded from further consideration.

3.1.3 Topography

"Topography" refers to an area's surface features, including its shape, height, and depth. The land surface at Homestead ARB is relatively flat, with elevations ranging from approximately 5 to 10 feet above mean sea level (amsl) (Air Force Center for Environmental Excellence [AFCEE], 2001). Site topography is generally flat but slopes slightly to the west towards the canal on the western edge of the parcel. Because there would be no effects on topography from either the Proposed Action or the No Action Alternative, this resource does not warrant further consideration and is excluded from further consideration.

3.1.4 Wetlands and Floodplains

Wetlands occurring on Homestead ARB include wet marsh and wet prairie. The wetland areas are primarily located with the runway infield and southeast of the runway extending in a southwest to northeast direction (CH2M, 2015). There are no wetlands located within the boundaries of the Preferred Alternative site. The proposed project area is not located within a Federal Emergency Management Agency (FEMA) designated floodplain (Miami-Dade County, 2020). A FONPA was not prepared because there would be no impacts to wetlands or floodplains as a result of this Proposed Action.

Because there would be no effects on wetlands or floodplains from either the Proposed Action or the No Action Alternative, this resource does not warrant further consideration and is excluded from further consideration.

3.1.5 Coastal Resources

The proposed project area is within the designated coastal zone in south Florida. However, the proposed Preferred Alternative site is more than 3 miles inland from the coastline and separated from the coastline by the Homestead ARB runway and other portions of Homestead ARB.

Homestead ARB has evaluated the Proposed Action and found it to be consistent with coastal zone management in Florida. A Coastal Zone Act Consistency Determination was submitted to the Florida Department of Environmental Protection (FDEP) Coastal Management Program through the Florida State Clearinghouse (Appendix C). No impacts to coastal zone management would result.

3.1.6 Airspace

Construction activities associated with the Preferred Alternative would not conflict with air operations at Homestead ARB. Because there would be no effects on air traffic at Homestead ARB or in the region from either the Proposed Action or the No Action Alternative, this resource does not warrant further consideration and is excluded from further consideration.

3.1.7 Socioeconomics

Homestead ARB is in southern Miami-Dade County approximately 20 miles southwest of Miami. Nearby communities include Homestead (4.5 miles southwest), Naranja (1.7 miles northwest), Leisure City (1.5 miles west), and Florida City (5 miles southwest).

The median household income in the nearby communities range from $32,126 to $43,568, which is lower than the median household income for Florida ($53,267) and Miami-Dade County ($48,982). Florida has approximately 13.6 percent of the population in poverty, which is lower than the poverty rates of Homestead (24.6 percent), Naranja (31.2 percent), Leisure City (31.9 percent), Florida City (38.3 percent), and Miami-Dade County (16.0 percent). (U.S. Census Bureau, 2020)

There would be temporary construction employment and associated wages. In addition, local suppliers could experience a short-term increase in demand for construction-related materials. There would be no long-term impacts to employment in the surrounding area as there would not be an increase in personnel working at Homestead ARB as a result of the Proposed Action. Because there would be short-term beneficial effects on the local economy and no long-term impacts to employment, this resource does not warrant further consideration and is excluded from further consideration.

3.1.8 Environmental Justice

EO 12898, “Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations,” requires federal agencies to consider disproportionately high adverse effects on human or environmental health for minority and low-income populations resulting from the implementation of a proposed action.

The areas surrounding the proposed project site include minority and low-income populations; however, the proposed project site is within a secure area and would not impact any populations outside Homestead ARB. Because the Proposed Action would have no effect on environmental justice, this resource does not warrant further consideration and is excluded from further discussion.

3.1.9 Protection of Children

EO 13045, “Protection of Children from Environmental Health Risks and Safety Risks,” states that each federal agency “(a) shall make it a high priority to identify and assess environmental health risks and safety risks that may disproportionately affect children; and (b) shall ensure that its policies, programs, activities, and standards address disproportionate risks to children that result from environmental health risks or safety risks.”

The proposed project site is within a secure area and children would not have access to the site. Because the Proposed Action would have no effect on children, this resource does not warrant further consideration and is excluded from further discussion.

3.2 Resources Considered in Detail

3.2.1 Soils

3.2.1.1 Definition of Resource

Soils are the unconsolidated surface materials that form from underlying bedrock or other parent material.

3.2.1.2 Existing Environment

Predominant soil series on Homestead ARB include Biscayne marl; Biscayne marl, drained; Cardsound silty clay loam – rock outcrop complex; and Udorthents, limestone substratum, 0-5% slopes; Udorthents, limestone substratum-Urban land complex; and Urban land.

Approximately 74 percent of Homestead ARB land consists of the Urban Land/Udorthents-Urban Land Complex soil types. Udorthents are nearly level areas of extremely stony fill material that are almost always used for urban or recreational development and are limited in their ecological potential. Limitations for this soil unit include wetness and the presence of underlying organic material. These limitations may be overcome by the use of stable fill material and the addition of, in some cases, extensive drainage systems. The urban land soil mapping unit is used to describe areas where more than 85 percent of the

surface is covered by impervious surfaces. The soils in open areas, such as lawns, vacant lots, and parks are mainly Udorthents. (Natural Resources Conservation Service [NRCS], 1996)

Soils in the proposed project area consist entirely of urban land (NRCS, 2020).

3.2.2 Water Resources

3.2.2.1 Definition of Resource

Water resources include both surface water and groundwater. Surface water resources include lakes, rivers, streams, canals, and wetlands (discussed in Section 3.1.4). These resources can be important to economic, ecological, recreational, and human health resources. Stormwater is included in the surface water analysis because it has the potential to flow into connected surface waters and impact surface water quality.

Groundwater includes subsurface hydrologic resources. Groundwater properties are often described in terms of depth to aquifer or water table, water quality, and surrounding geologic composition. Stormwater flows, defined as runoff from precipitation that are increased by impervious surfaces, may introduce sediments and other contaminants into the water resource environment.

3.2.2.2 Existing Environment

Surface Water

Natural drainage on Homestead ARB is limited due to the small amount of topographic relief and the location of the water table, which is either at or near the land surface of Homestead ARB.

Stormwater runoff is collected by an internal drainage system of canals, swales, ditches, and pipes. The Boundary Canal system consists of the Boundary Canal, the Flightline Canal, several associated drainage canals/ditches, and the stormwater reservoir. The Flightline Canal drains runoff from the Homestead ARB runway and the proposed project area and discharges into the Boundary Canal. The Boundary Canal encircles most of the former HAFB area, and the canal system drains approximately 85 percent of runoff from this area. The water from the Boundary Canal flows into a reservoir at the southeast corner of Homestead ARB, from which water is pumped into the Military Canal, which discharges into Biscayne Bay.

Three lakes are located within Homestead ARB, the 14.5-acre Phantom Lake, the 7.7-acre North Flightline Lake, and the 8.0-acre South Flightline Lake (refer to Figure 3-1). These lakes comprise approximately 30.2 acres or less than 2 percent of the installation. All the lakes on Homestead ARB are man-made, remnant limestone borrow pits. Only the North Flightline Lake has a surface water connection to the Boundary Canal system.

Surface waters in the proposed project area are limited to a man-made drainage canal.

Groundwater

The groundwater in south Florida is contained in two distinct aquifer systems: the Biscayne aquifer and the Floridan aquifer. The Biscayne aquifer is relatively shallow (within 1 to 5 feet of land surface) and unconfined with a thickness ranging from approximately 80 to 200 feet. The average transmissibility has been estimated to be 5 million gallons per day (mgd) per foot. Recharge to the Biscayne aquifer is derived from rainfall, irrigation runoff, surface water imported by canals, urban runoff, and groundwater inflow. Average recharge is approximately 38 inches per year. The typical well in this aquifer system yields 537 mgd in Miami-Dade County. The Biscayne aquifer covers more than 4,000 square miles in southeastern Florida, supplies water to more than 5 million residents in Miami-Dade, Broward, and southern Palm Beach counties, and is the most intensely used water source in Florida (South Florida Water Management District [SFWMD], 2020). The Floridan aquifer is deep and confined and has an approximate thickness of 2,800 feet. The Floridan aquifer underlies approximately 100,000 square miles in southern Alabama, southeastern Georgia, southern South Carolina, and all of Florida and provides

drinking water to 10 million people (Stewart, 1980). The typical well in this aquifer system yields 3.68 mgd in Miami-Dade County (CH2M, 2017).

3.2.3 Biological Resources

3.2.3.1 Definition of Resource

Biological resources consist of plants and animals and their habitats. These resources provide aesthetic, recreational, and socioeconomic benefits to society. This section describes the plant and animal species that occur, or are likely to occur, in the proposed project site.

Three federal laws are applicable to the analysis of biological resources for the project:

- The Migratory Bird Treaty Act (MBTA), as amended, implements various treaties and conventions between the United States and Canada, Japan, Mexico, and Russia for the protection of migratory birds. Under the MBTA, taking, killing, or possessing listed birds is unlawful, unless permitted by regulation.
- The Bald and Golden Eagle Protection Act of 1940, as amended, provides for the protection of the bald eagle and the golden eagle by prohibiting, except under certain specified conditions, the taking, possession, and commerce of such birds.
- The ESA, as amended, requires the government to protect threatened and endangered plants and animals (listed species) and the habitats upon which they depend. The ESA requires federal agencies to ensure that any action it authorizes, funds, or conducts does not adversely impact listed species or "destroy or adversely modify" critical habitat for that species. "Critical habitat" is defined as a specific geographic area that contains features for the conservation of an endangered species and may require special management and protection.

3.2.3.2 Existing Environment

Vegetation and Wildlife

Birds are frequently observed in the Homestead ARB, and common species include the northern mockingbird (*Mimus polyglottos*), common grackle (*Quiscalus quiscula*), mourning dove (*Zenaida macroura*), northern cardinal (*Cardinalis cardinalis*), red-shouldered hawk (*Buteo lineatus*), and red-winged blackbird (*Agelaius phoeniceus*). All species of wading birds in south Florida may occur in the freshwater canals and wetlands on-base, and common species include the great blue heron (*Ardea herodias*), great egret (*Casmerodius albus*), cattle egret (*Bubulcus ibis*), white ibis (*Eudocimus albus*), and double-crested cormorant (*Phalacrocorax auritus*). (HAFB, 1993)

The MBTA protects 1,026 bird species (USFWS, 2013). A migratory bird, as protected by the MBTA, is any species or family of birds that live, reproduce, or migrate within or across international borders at some point during their life cycle. Protected migratory birds travel along the east coast of Florida and may use the proposed project area during the year. Additionally, some year-round resident birds may also be protected if they are a species that otherwise migrate across international borders.

The canals and lakes provide habitat for a variety of fish, reptiles, and amphibians. Common fish species include largemouth bass (*Micropterus salmoides*), warmouth (*Lepomis gulosus*), bluegill (*L. macrochirus*), striped mullet (*Mugil cephalus*), Florida gar (*Lepisosteus platyrhincus)*, and common snook (*Centropomis undecimalis*). The Florida slider (*Trachemys scripta*), Florida soft shell turtle (*Apalone ferox*), snapping turtle (*Chelydra serpentina*), American alligator (*Alligator mississippiensis*), American crocodile (*Crocodylus acutus*)*,* and the exotic spectacled caiman (*Caiman crocodiles*) are common reptiles in the area. (USAF, 2000; CH2M, 2015)

The Argentine black and white tegu (*Salvator merianae*), green iguana (*Iguana iguana*), and brown basilisk (*Basiliscus vittatus*) are exotic reptile species that also occur. Other reptiles and amphibians include rough grass snake (*Opheodrys aestivus*), corn snake (*Elaphe guttata*), checkered garter snake (*Thamnophis marcianus*), Florida chorus frog (*Pseudacris nigrita verrucosa*), tree frogs (*Hyla* spp.), and two-toed amphiuma (*Amphiuma means*). The raccoon (*Procyon lotor*), coyote (*Canis latrans*), gray fox

(*Urocyon cinereoargenteus*), river otters (*Lontra canadensis*), bobcat (*Lynx rufus*), and marsh rabbit (*Sylvilagus palustris*) are common mammals occurring in the area. (USAF, 2000; CH2M, 2015)

The proposed project area is part of the developed and landscaped area of Homestead ARB with a portion of the proposed site for the corrosion control facility/wash rack partly in a mowed area that is vegetated primarily by lawngrasses (Zoysia, St. Augustine), weeds, and remnant pine rockland plants. The proposed site has scattered palm trees and clumps of bushes, primarily Brazilian pepper (*Schinus terebinthifolia*). In addition, Small's milkpea, a federally endangered plant, was recorded in the project area and is discussed in more detail below.

Threatened and Endangered Species and Critical Habitat

Sensitive species include those with federal endangered or threatened status; species proposed for listing as federal endangered or threatened; and state endangered, threatened, and species of special concern. An endangered species is in danger of extinction throughout all or a significant portion of its range. A threatened species is likely to become endangered in the future throughout all or a portion of tis range because of habitat loss, anthropogenic efforts, or other causes.

The proposed project area was evaluated for sensitive species known to be present in the vicinity.

A survey for two federally endangered plants, Small's milkpea and sand flax (*Linum arenicola)*, was conducted in all non-asphalt portions of the proposed project area in 2019. No sand flax was observed. A total of 137 plants of Small's milkpea were recorded in the southwestern portion of the mowed areas. (The Institute for Regional Conservation [IRC], 2019; refer to Appendix D)

The federally endangered Florida bonneted bat is known to occur in the vicinity, but a site walk by USFWS in 2018 determined that the palm trees on the site would not support the species and, therefore, the species would not occur on the parcel (Friers, pers. comm., 2020).

Additional federally and state-listed plant and wildlife species have the potential to occur at Homestead ARB, but these species are not discussed in detail because they would not occur on the proposed project site. Homestead ARB does not contain designated critical habitat, as it has been exempted from critical habitat designation due to implementation and regular update of its Integrated Natural Resource Management Plan (INRMP). Appendix D provides a list of the federally listed plant and wildlife species that could occur on Homestead ARB. The Homestead ARB INRMP provides detailed information about the protected species that could occur on Homestead ARB.

A Section 7 ESA coordination letter was submitted to USFWS on May 15, 2020 (refer to Appendix A). The EA will be updated as needed based on the response received from USFWS.

3.2.4 Air Quality

3.2.4.1 Definition of Resource

Under the authority of the CAA, EPA has established nationwide air quality standards to protect public health and welfare. These federal standards, known as National Ambient Air Quality Standards (NAAQS), are shown in Table 3-1. They represent the maximum allowable atmospheric concentrations for six criteria pollutants: ozone (O_3), nitrogen dioxide, carbon monoxide (CO), sulfur dioxide (SO_2), lead, and particulate matter (which includes respirable particulate matter less than or equal to 10 micrometers in diameter [PM_{10}] and respirable particulate matter less than or equal to 2.5 micrometers in diameter [$PM_{2.5}$]). Ground-level or "bad" O_3 is formed by chemical reactions between oxides of nitrogen and volatile organic compounds (VOCs) in the presence of sunlight.

Table 3-1. National Ambient Air Quality Standards

Criteria Pollutant	Federal Standard (Averaging Period) [a]	Federal Attainment Status
CO	35 ppm (1 hour)	Attainment

Table 3-1. National Ambient Air Quality Standards

Criteria Pollutant	Federal Standard (Averaging Period) [a]	Federal Attainment Status
	9 ppm (8 hours)	Attainment
NO2	0.100 ppm (1 hour) 0.053 ppm (annual arithmetic mean)	Attainment
O3	0.070 ppm (8 hours)	Attainment
PM2.5	12 μg/m^3 (annual arithmetic mean)	Attainment
	35 μg/m^3 (24 hours) [b]	Attainment
PM10	150 μg/m^3 (24 hours)	Attainment
SO2	0.5 ppm (3 hours, secondary standard) 0.075 ppm (1 hour) b	Attainment Attainment
Lead	0.15 μg/m^3 (rolling 3-month average)	Attainment

Source: EPA, 2020.

[a] National standards other than O_3, particulate matter, and those based on annual averages or annual arithmetic means are not to be exceeded more than once a year. The O_3 standard is attained when the fourth highest 8-hour concentration in a year, averaged over 3 years, is equal to or less than the standard. For PM_{10}, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 μg/m^3 is equal to or less than 1. For $PM_{2.5}$, the 24-hour standard is attained when 98 percent of the daily concentrations, averaged over 3 years, is equal to or less than the standard.

[b] To attain this standard, the 3-year average of the 99th percentile of the daily maximum 1-hour average at each monitor within an area must not exceed 75 parts per billion.

μg/m^3 = micrograms per cubic meter
ppm = parts per million, by volume
NA = not applicable

Under the CAA, the country is classified into attainment, nonattainment, and maintenance areas. Any area not meeting the NAAQS is designated as nonattainment for the specific pollutant or pollutants, whereas areas that meet the NAAQS are designated as attainment areas. Maintenance areas are those areas that were previously designated as nonattainment and subsequently re-designated as attainment, subject to development of a maintenance plan.

Under the EPA New Source Review (NSR) program, stationary sources of air pollution are required to have permits before construction of the source begins. NSR Prevention of Significant Deterioration permit approval would be required if the proposed project was either: (1) a new source, with the potential to emit 250 tons per year or more of an attainment pollutant; or (2) an existing major source of emissions, making a major modification in an attainment area, and resulting in a net emission increase above specified levels. Nonattainment NSR approval would be required if the proposed project were a new, stationary, or major source of emissions that made a major modification in a nonattainment area, with potential to emit nonattainment pollutants exceeding the NSR thresholds.

The CAA General Conformity Rule (40 CFR, Parts 6, 51, and 93) requires federal agencies to make written conformity determinations for federal actions in or affecting nonattainment or maintenance areas. If the emissions of a criteria pollutant (or its precursors) do not exceed the *de minimis* level, then the federal action has minimal air quality impact and the action is determined to conform for the pollutant under study; therefore, no further analysis is necessary.

3.2.4.2 Existing Environment

Criteria Pollutants

Miami-Dade County, where Homestead ARB is located, is in attainment for all criteria air pollutants (EPA, 2020).

3.2.5 Cultural Resources

3.2.5.1 Definition of Resource

Cultural resources are defined as prehistoric or historic districts, sites, buildings, structures, or objects considered important to a culture, subculture, or community for scientific, traditional, religious, or other purposes. They include archaeological resources, historic architectural or engineering resources, and other traditional resources.

Section 106 of the NHPA requires that federal agencies identify any historic properties that are listed or eligible for listing in the National Register of Historic Places (NRHP) that could be affected by a proposed action. The NRHP is a list of America's historic properties. It identifies districts, sites, buildings, structures, and objects that are significant in American history, architecture, engineering, and culture.

As defined in the Advisory Council on Historic Preservation's regulations for implementing Section 106 of the NHPA, the Area of Potential Effects (APE) for a project is the "geographic area or areas within which an undertaking may directly or indirectly cause changes in the character of or use of historical properties, if any such properties exist" (36 CFR §800.16[d]). The APE is defined based upon the potential for effect, which may differ for aboveground resources (historic structures and landscapes) and subsurface resources (archaeological sites). In addition to the actual site of the undertaking, the APE includes other areas where the undertaking could cause changes in land use, traffic patterns, or other aspects that could affect historic properties. Different project factors may produce more than one APE for a given undertaking. Factors with potential to cause changes are noise, vibration, visual setting, traffic, atmospheric conditions, construction activities, indirect impacts, and cumulative impacts.

3.2.5.2 Existing Environment

A reconnaissance investigation for significant archeological sites was conducted by HAFB and the National Park Service in 1986. Based on the survey results, what is known of the grounds condition at HAFB (and the surrounding area), and the construction history of the base, the 1986 report concluded there is virtually no possibility of discovering a significant archeological site in the area. The Florida SHPO concurred with the report's conclusion in 1993 (Appendix A) (USAF, 1994).

Two destructive hurricanes occurring in 1945 and 1992 eliminated most structures in the area. Two structures remain at Homestead ARB that require consideration for the NRHP, Building 121 is the only remaining structure on-base dating over 50 years, and Building 931, constructed in 1974, was deemed historically significant during the Cold War era. Both of these structures are considered ineligible for the NRHP (USAF, 2000).

There are no structures in the proposed project site and the project area is the urban/industrial area of Homestead ARB with a mixture of maintained grass and airport parking apron. No historic buildings or archaeologic sites have been identified in the proposed project site. In a letter dated April 20, 2020, SHPO concurred with the finding that the proposed undertaking will have no effect on historic properties (Florida Department of State, 2020; refer to Appendix A).

3.2.6 Noise

3.2.6.1 Definition of Resource

Noise, often defined as unwanted sound, is one of the most common environmental issues associated with human activities. Public annoyance is the most common impact associated with exposure to elevated noise levels.

Sound is created by acoustic energy, which produces pressure waves that travel through air and are sensed by the eardrum. Because the range of sound pressure ratios varies over many orders of magnitude, a base-10 logarithmic scale is used to express sound levels in dimensionless units of decibels (dB). Sound travels in waves; there are also varying frequencies associated with each sound event. The human ear does not respond equally to all frequencies. To obtain accurate measurements and descriptions of noise that are relevant to the human receptors, noise frequencies are filtered or weighted to most closely approximate the average frequency response of the human ear. This weighting is called the “A” scale on sound-level meters and is the scale that is used for noise analyses. Decibel units described in this manner are referred to as “A-weighted” dB. As sound intensity tends to fluctuate with time, a method is required to describe a noise source, such as a highway or airport, in a steady-state condition. The descriptor most commonly used in environmental noise analysis is the equivalent steady -state sound level. This value is representative of the same amount of acoustic energy that is contained in a time-varying sound measurement over a specified period.

3.2.6.2 Existing Environment

Noise, in the context of this analysis, refers to sounds generated by activities that could affect Homestead ARB employees or wildlife in the proposed project area.

The installation supports several military units: the 482 FW, 125th Fighter Wing (125 FW), Detachment 1 of the FANG, SOCSOUTH, the Maritime Safety and Security Team 911-14 of the U.S. Coast Guard, the Miami Aviation Branch of the CBP, the 50th Air Support Group of the Florida Army National Guard, and the Army Air Force Exchange Service.

Homestead ARB has one bi-directional runway (southwest to northeast) which is 11,200 feet long by 300 feet wide. There is also an area for helicopter landing north of the runway. The 482 FW at Homestead ARB operates 24 F-16C aircraft. The FANG, the Miami Aviation Branch of the CBP, and SOCSOUTH operates their aircraft from Homestead ARB. The FANG provides interdiction and security support utilizing the F-15A “Eagle” aircraft, and the CBP operates a variety of fixed-wing and rotary aircraft for border protection and search-and-rescue operations.

The Air Installation Compatible Use Zone (AICUZ) program was developed by the DoD to protect civilians from aircraft noise and potential accidents while continuing to promote the mission of the USAF. The program promotes compatible land use through participation in local, regional, state, and federal land use planning, control, and coordination processes. Local development and land use must be compatible with aircraft noise zones and potential accident zones outlined in AICUZ guidelines. The program is also designed to inform residents living near the base about USAF flying operations and the resulting noise levels and potential for accidents (Homestead ARB, 2007).

The noise zones used in the AICUZ are Day-Night Average A-weighted Sound Levels of 65 to 69 A--weighted decibel (dBA), 70 to 74 dBA, 75 to 79 dBA, and greater than 80 dBA. There are also three accident potential zones (APZs) used: the clear zone (CZ), the APZ I, and the APZ II. The zones start at the end of the runway and extend out, with the CZ located closest to the runway and the APZ II located farthest away (Homestead ARB, 2007).

The AICUZ report analyzes the noise zones and the APZs based on the zoning, current land use, and future land use of an area to determine if land uses are compatible and meet the USAF AICUZ guidelines.

The proposed project area is adjacent to the existing parking apron and across from existing airplane maintenance areas and noise levels range from approximately 70 to 74 dBA (Homestead ARB, 2007).

3.2.7 Hazardous Materials and Solid Waste

3.2.7.1 Definition of Resource

This section describes the affected environment associated with hazardous materials used or stored at the considered locations. A hazardous material is defined in 49 CFR §171.8 as a "substance or material that the Secretary of Transportation has determined is capable of posing an unreasonable risk to health, safety, and property when transported in commerce, and has been designated as hazardous under U.S.C. Title 49 Section 5103."

For purposes of this EA, "hazardous material" refers to any item or agent (biological, chemical, or physical) that has the potential to cause harm to humans, animals, or the environment, either by itself or through interaction with other factors.

Issues associated with hazardous materials typically center around waste streams; underground storage tanks; aboveground storage tanks; and the storage, transport, use, and disposal of pesticides, fuels, lubricants, and other industrial substances. When such materials are improperly used, they can threaten the health and well-being of wildlife species, habitats, soil and water systems, and humans. The threshold level of significance for impacts resulting from hazardous materials includes a release of hazardous materials or a violation of local, state, or federal hazardous materials regulations.

Radon is considered to be part of the affected environment associated with hazardous materials. The Indoor Radon Abatement Act of 1988 established a long-term goal that indoor air be as free from radon as the ambient air outside buildings. In general, elevated indoor radon gas concentrations may present public health concerns. EPA established a mitigation action level of 4 picocuries per liter of air (pCi/L).

3.2.7.2 Existing Environment

Homestead ARB hazardous waste streams result from site operations such as aircraft cleaning and maintenance, aircraft refueling, aerospace ground equipment and vehicle maintenance, and equipment and vehicle refueling (CH2M, 2015). Also incorporated into the hazardous waste stream is the management of the recycling facility, pesticides, and herbicides.

Hazardous materials acquisition, use, handling, and disposition are managed by the Homestead ARB Environmental Management (CEV).

The requirements for accumulation, storage, handling, and disposal of hazardous waste on Homestead ARB are identified in Homestead ARB's *Hazardous Waste Management Plan* (HWMP) (Homestead ARB, 2012). This plan was developed in accordance with Air Force Instruction (AFI) 32-7042, *Solid and Hazardous Waste Compliance*; Air Force Pamphlet (AFPAM) 32-7042, *Hazardous Waste Management Guide*; and the Resource Conservation and Recovery Act, as amended. The HWMP implements the requirements of AFPAM 32-7042, Chapter 10 and provides installation personnel with specific procedures and responsibilities to manage hazardous wastes consistent with federal, state, and local laws and regulations. The requirements in the HWMP are applicable to all military, civilian, and contract personnel at Homestead (Homestead ARB, 2012).

Homestead ARB has an Installation Restoration Program (IRP) that tracks and monitors sites on Homestead ARB that may require restoration and remediation due to contamination. These areas are commonly referred to as solid waste management units (SWMUs) and areas of concern (AOCs).

The Homestead ARB IRP includes 18 Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) sites; two Military Munitions Response Program (MMRP) sites; and eight petroleum, oil, and lubricants (POL) sites, for a total of 28 sites (refer to Figure 3-2). Long-term monitoring for groundwater contamination is ongoing at four CERCLA sites (Operable Unit [OU]-7, OU-11T, OU-15, and OU-18) and two POL sites (SS-2A and SS-15A). Land use controls have been implemented for 20 of the 28 IRP sites. (CH2M, 2015)

One POL site is located at the preferred alternative site. OWS 4709, an active OWS, addresses total recoverable petroleum hydrocarbons in the soil as a result of an overflow due to a malfunctioning effluent pump in 2004 (Homestead ARB, 2013).

Homestead ARB uses a network of OWSs, which are control devices used to remove oil, grease, fuel, and other floatable materials from stormwater. These materials are common and could contaminate stormwater at the base. The size and design of these units and the storage capacity of separated materials determines the extent to which the units can remove contaminants. Most OWSs at Homestead ARB discharge to the sanitary sewer and are not identified as current stormwater BMPs.

3.2.8 Aesthetics and Visual Resources

3.2.8.1 Definition of Resource

Visual resources refer to the natural and constructed features that give a particular environment its aesthetic qualities. In undeveloped areas, landforms, water surfaces, and vegetation are the primary components that characterize the landscape. Constructed elements, such as buildings, fences, and streets, also may be visible. These may dominate the landscape or be relatively unnoticeable. Attributes used to describe the visual resource value of an area include any significant views or vistas, landscape character, perceived aesthetic value, and uniqueness.

In developed areas, the natural landscape is likely to provide a background for the more obvious constructed features. The size, forms, materials, and functions of buildings, structures, roadways, and infrastructure, along with surrounding landscape features, define the visual context of an area. These features form observers' overall impressions of an area's visual character. Some urbanized areas or developments prescribe standards or design guidelines for achieving or preserving visual quality. In urban areas, there may be ordinances or zoning provisions that guide physical development.

In nonurban contexts, laws, such as the National Wild and Scenic Rivers Act, and management objectives, protect scenic quality of some special areas. Federal land managers also clarify the scenic value of lands in accordance with federal land management regulations.

3.2.8.2 Existing Environment

The proposed project area is on the western side of the maintenance apron immediately north of, and adjacent to, Building 4709 (wash rack) and south of the existing perimeter security gate. The public does not have physical or visual access to the site. The project area consists of mowed grass, scattered palm trees, and shrubs and is bound to the southwest by a drainage canal and the existing wash rack and to the north and east by pavement (road or apron). Regular vehicle traffic and overhead military flights occur within and adjacent to the project area. There is an active airfield approximately 3,500 feet to the south.

3.2.9 Traffic and Transportation

3.2.9.1 Definition of Resource

Traffic and transportation is specifically defined as ground transportation for this analysis. Ground transportation resources generally include the roadway and street systems surrounding the affected environment.

3.2.9.2 Existing Environment

Homestead ARB is located approximately 1 mile east of the Florida Turnpike. 288th Street SW, intersects the Florida Turnpike to the west and runs parallel the northern boundary of Homestead ARB before terminating at the Homestead ARB entrance. Westover Boulevard and Coral Sea Boulevards are the main roads running generally north/south through Homestead ARB. At the southern end of Westover Boulevard, the road makes a turn to the east ending on the maintenance apron. The proposed project area is on unoccupied land and existing pavement at the southern end of Westover Boulevard. The proposed project area is approximately 1.2 miles east of the Florida Turnpike.

3.2.10 Safety and Occupational Health

3.2.10.1 Definition of Resource

Safety and occupational health is the promotion and maintenance of the physical, mental, and social well-being of workers by controlling risk to the highest degree protecting the safety, health, and welfare of people engaged in work or employment.

3.2.10.2 Existing Environment

Homestead ARB has emergency services that consist of fire, emergency response services, and physical security. The nearest hospital is in Homestead, approximately 2 miles southwest of the proposed project area.

The proposed project site is vacant and within a secure area; as such, there are no issues related to safety at the present time.

The current corrosion function is in Hangar Building 194 and is a paint booth placed within the center bay. It is not compliant with UFC 4-211-02 standards, especially regarding personnel access and decontamination requirements. The current wash rack is an open-sided structure that exposes personnel to excessive heat.

3.2.11 Utilities and Infrastructure

3.2.11.1 Definition of Resource

Utility infrastructure refers to the system of public works that provides the underlying framework for a community. Utilities include electric, gas, telephone, internet service, waste management, sanitary sewer, and domestic water systems.

3.2.11.2 Existing Environment

The infrastructure of Homestead ARB includes utility systems (electrical, potable water, wastewater, storm drainage, solid waste collection, heating and cooling, and liquid fuels) and a communications system. Florida Power and Light Company (FPL) provides electrical power to Homestead ARB. There is no natural gas supply at Homestead ARB. Florida City Gas supplies natural gas to portions of the local area, including parts of unincorporated Miami-Dade County.

The Biscayne aquifer is the primary drinking water source for Miami-Dade County. The Miami-Dade Water and Sewer Department (WASD) supplies potable drinking water to the area through county supply lines. This plant has sufficient capacity to provide current water demand. The plant is currently producing water that complies with all the local, state, and federal requirements.

Homestead ARB has a private sanitary sewer collection system permitted by the Department of Environmental Resources Management under permit PSO-1033, including four private sanitary sewer pump stations and a sanitary sewer collection system. The South District Wastewater Treatment Plant, operated by WASD, treats wastewater from the proposed project area.

A private contractor currently collects and disposes of solid waste at the base. Homestead ARB established and operates a solid waste recycling and disposal program that meets USAF goals for waste diversion from landfills.

All heating and cooling at Homestead ARB is currently provided by fresh-air heating, ventilation, and air-conditioning systems; however, because these fresh-air systems are undesirable in the highly humid Florida climate, base engineers have proposed replacing them with a utility central management system to provide long-range cost savings.

4. Environmental Consequences

This section identifies the potential environmental consequences of the Preferred Alternative and No Action Alternative for soils, water resources, biological resources, air quality, cultural resources, utilities and infrastructure, noise, hazardous materials and solid waste, aesthetic and visual resources, traffic and transportation, and safety and occupational health.

Three categories of potential environmental consequences (impacts or effects) were evaluated: direct, indirect, and cumulative. A direct impact is the result of the Preferred Alternative or No Action Alternative and occurs at the same time and place. An indirect impact is caused by the Preferred Alternative or No Action Alternative and "[is] later in time or farther removed in distance, but [is] still reasonably foreseeable" (40 CFR Part 1508). Cumulative effects are the result of incremental impacts of the Preferred Alternative or No Action Alternative, when added to other past, present, and reasonably foreseeable future actions, regardless of which agency, person, or private entity undertakes such actions.

In the following sections, the duration of each impact is described either as short-term, such as limited to the construction period or immediately thereafter, or long-term, which includes operational impacts that recur through time or continue well beyond the period of construction. Impacts can be beneficial or adverse. Beneficial impacts improve the resource or issue analyzed. Adverse impacts negatively affect the resource or issue analyzed. The intensity of a potential impact refers to its severity and takes into account the level of controversy associated with impacts on human health; whether the action establishes a precedent for further actions with significant effects; the level of uncertainty about projected impacts; and the extent to which the action threatens to violate federal, state, or local environmental protection laws or constrain future activities. Potential beneficial impacts are discussed separately from potential adverse impacts. The thresholds of change for the intensity of impacts are defined as follows:

- Negligible: When the impact is localized and not measurable at the lowest level of detection
- Minor: When the impact is localized and slight, but detectable
- Moderate: When the impact is readily apparent and appreciable
- Major: When the impact is severely or significantly disruptive to current conditions

Intensities that are classified as negligible, minor, or moderate are considered to be insignificant impacts in this analysis. Significant impacts are those categorized as "major." Measures that would be implemented to avoid or minimize potential impacts on the environment are presented.

4.1 Environmental Consequences

4.1.1 Soils

The threshold level of significance would result in a substantial loss of soil through erosion that could not be managed through implementation of BMPs.

4.1.1.1 Preferred Alternative

Minor impacts to soils would result from construction and grading activities for the new corrosion facility and wash rack. Soil disturbance also could result in increased erosion potential from loss of ground cover and exposure of bare soils to precipitation and runoff. The potential for temporary indirect impacts to water quality from increased erosion are discussed in Section 4.1.2.

Disturbed areas would be kept to the minimum required to complete the work (less than 1.5 acres) and would be confined within site boundaries. Sedimentation and erosion controls would be implemented during construction to minimize erosion of surrounding soils due to soil/ground disturbance. Stormwater runoff resulting from increased impervious surface area also could contribute to limited soil erosion. Site-specific measures would minimize transport of soils. The stormwater collection system for the new corrosion facility and wash rack would be tied into the installation's existing stormwater program. Appropriate BMPs would be selected based on site-specific conditions and could include, but would not

be limited to, sediment barriers (silt fence or straw wattles), temporary detention basins, mulching of exposed soils, and prompt revegetation of disturbed areas.

Soil disturbance could result in increased erosion potential from loss of ground cover and exposure of bare soils to precipitation and runoff.

The Preferred Alternative would be constructed on previously cleared lands and would have minor impacts to soils with the use of BMPs.

4.1.1.2 No Action Alternative

No new construction or development activities are proposed under the No Action Alternative. Therefore, no impacts to soils would occur.

4.1.2 Water Resources

Effects on water resources are considered significant if any of the following conditions are met:

- Groundwater levels are reduced to such an extent that spring flows are diminished or production at existing wells within the basin or adjacent interconnected basins falls below economically feasible or practical engineering limits
- Groundwater quality changes occur because of increasing salinity or mineral content that can negate the water's value for domestic, industrial, or agricultural consumption
- Existing surface water drainage patterns are altered such that the ultimate destination of the flow is changed
- Increases in water quality constituents could lead to a violation of specific state and federal standards

4.1.2.1 Preferred Alternative

An existing potable water main onsite would be relocated and adapted to the proposed site. Implementation of the Preferred Alternative would have a negligible impact on groundwater with the implementation of BMPs. The Biscayne aquifer that underlies the project area provides drinking water for over 5 million people across multiple counties in southeastern Florida. There are no direct impacts to aquifer recharge, and negligible indirect impacts to aquifer recharge from an increase in impervious surface area resulting from the development of the Preferred Alternative are small compared to the size of this aquifer.

Industrial activities occurring at the proposed corrosion facility/wash rack, such as aircraft washing, could contribute to potential stormwater contamination. Homestead ARB uses a network of OWSs, which are control devices used to remove oil, grease, fuel, and other floatable materials from stormwater. These materials are common and could contaminate stormwater at the base. The size and design of these units and the storage capacity of separated materials determines the extent to which the units can remove contaminants. Most OWSs at Homestead ARB discharge to the sanitary sewer and are not identified as current stormwater BMPs.

While a man-made drainage canal is at the western edge of the project area the Preferred Alternative would not encroach upon any surface waters. There could be short-term indirect impacts to surface waters due to increased sedimentation from erosion of disturbed soils during construction. A stormwater permit from SFWMD would be obtained prior to construction activities. Construction BMPs would be used during the construction of the new corrosion facility/wash rack to reduce potential impacts. Direct impacts to surface waters from construction would be negligible with the use of construction BMPs. The existing drainage canal would be used for stormwater discharge and conveyance.

4.1.2.2 No Action Alternative

No new construction or development activities are proposed under the No Action Alternative. Therefore, no impacts on water resources would occur.

4.1.3 Biological Resources

Effects on biological resources are considered significant if one or more of the following criteria are met with the implementation of the Preferred Alternative or No Action Alternative:

- Any loss of populations of a federally listed or proposed endangered or threatened species or its habitat
- Any fill or alteration of wetlands or waters of the United States regulated under the CWA
- Substantial loss of natural vegetation communities that are slow to recover

4.1.3.1 Preferred Alternative

Vegetation and Wildlife

The proposed project area does not provide suitable habitat for wildlife and is an isolated area of maintained lawn and parking apron within the larger industrial/urban area. While implementation of the Preferred Alternative would largely eliminate this small area of grass, it would be consistent within the larger industrial/urban area and would result in negligible direct and indirect impacts to vegetation and wildlife.

Threatened or Endangered Species and Critical Habitat

Small's milkpea is present on the parcel but it is expected the site design will avoid the known population of the federally endangered plant. Small's milkpea populations will be visibly marked and fenced to prevent inadvertent entry by equipment. If encroachment into the Small's milkpea populations is unavoidable due to site layout, then additional consultation with USFWS would determine required management activities to reduce the potential impacts to this federally protected species.

Because USFWS determined there are no potential roost areas for the Florida bonneted bat in the proposed project site (Friers, pers. comm., 2020), there would be no effects on this species, which is a federally endangered animal.

4.1.3.2 No Action Alternative

No new construction or development activities are proposed under the No Action Alternative. The parcel would remain vacant and, while it would continue to provide habitat for Small's milk pea, it would provide minimal habitat for general vegetation and wildlife. No impacts to biological resources would occur.

4.1.4 Air Quality

The threshold level of significance for air quality is defined as a violation of an ambient air quality standard or regulatory threshold.

4.1.4.1 Preferred Alternative

Criteria Pollutants

The threshold level of significance for air quality is defined as a violation of an ambient air quality standard or regulatory threshold.

Air quality impacts associated with the Preferred Alternative were evaluated based on whether emissions would be localized, and whether a reasonable potential exists for a violation of an ambient air quality standard or regulatory threshold. A conformity analysis is not mandatory for attainment areas; however, an estimate is provided to show the Preferred Alternative's emissions would be less than the *de minimis* levels established in the conformity regulation. Implementation of the Preferred Alternative at Homestead ARB would result in minor, direct, short-term, adverse impacts on overall air quality from construction activities. The operation of various pieces of equipment during construction activities would create

exhaust emissions and generate dust and other particles in the air during the execution of the Preferred Alternative. Mobile source emissions also would be generated from vehicular traffic.

Construction and operational emissions were estimated using the U.S. Air Force's Air Conformity Applicability Model (version 5.0.16). Construction activities would include grading, building new facilities, and paving. Construction was assumed to begin in April 2021 and last through September 2022.

The Preferred Alternative will result in one new air emission source, the corrosion control facility. The planned corrosion control facility is expected to be more efficient and have more stringent air emission controls than the existing corrosion control facility. Additionally, there is not expected to be any change in the number of aircraft processed through the corrosion control facility. Therefore, operational emissions are expected to decrease with implementation of the Preferred Alternative. Table 4-1 summarizes the Preferred Alternative's projected total air emissions from construction activities. A copy of the calculations used to develop these estimates is provided in Appendix E.

Table 4-1. Estimated Emissions from the Construction of the Corrosion Control and Wash Rack Facility

Emission Source	Emissions for 2021 (tons per year)					
	VOC	CO	NO_X	SO_2	PM_{10}	$PM_{2.5}$
2021 Construction Emissions	**0.23**	**1.54**	**1.44**	**0.004**	**1.36**	**0.063**
de minimis levels (tons per year)	100	100	100	100	100	100
Thresholds Exceeded for Any Activity?	No	No	No	No	No	No
	Emissions for 2022 (tons per year)					
Emission Source	**VOC**	**CO**	**NO_X**	**SO_2**	**PM_{10}**	**$PM_{2.5}$**
2022 Construction Emissions	**0.45**	**1.20**	**1.04**	**0.002**	**0.049**	**0.049**
de minimis levels (tons per year)	100	100	100	100	100	100
Thresholds Exceeded for Any Activity?	No	No	No	No	No	No

Source: Appendix E, Air Quality Emission Estimates and Record of Non-Applicability

BMPs would be implemented to reduce potential impacts to air quality. These control measures could include applying water to, or using other stabilization measures on, areas of bare soil or soil piles; creating wind breaks; and covering dump trucks that transport materials that could become airborne. Additionally, contractors would maintain construction equipment in accordance with manufacturers' specifications to reduce exhaust emissions and minimize unnecessary noise impacts.

Based on the estimated emissions listed in Table 4-1, the emissions from construction activities associated the Preferred Alternative would be below regulatory thresholds. Therefore, the Preferred Alternative would not be subject to a Prevention of Significant Deterioration permit or NSR requirements. Analysis indicates that emissions would be below the *de minimis* thresholds. Although not required, a Record of Non-applicability is provided in Appendix E to document that the Preferred Alternative is exempt from general conformity requirements. Appendix E also contains detailed emission calculations.

Climate Change and Greenhouse Gases

The Preferred Alternative would generate greenhouse gas (GHG) emissions from construction-related activities. Construction of the Preferred Alternative would result in a short-term, insignificant increase in GHG emissions. Estimated peak GHG emissions would be 343 tons of CO_2e for construction activities in 2021. Therefore, short-term, minor, adverse impacts to climate change as a result of GHG emissions at Homestead ARB would be expected from implementation of the Preferred Alternative.

4.1.4.2 No Action Alternative

Implementation of the No Action Alternative would not result in a change in current conditions. Therefore, no impacts to air quality would occur.

4.1.5 Cultural Resources

The threshold level for significant impacts to cultural resources would adversely affect any historic property that is eligible for or listed in the NRHP or has been identified by a federally recognized Native American tribe as a sacred site.

4.1.5.1 Preferred Alternative

No negative impacts to architectural or other cultural resources would be expected at the proposed project site. No buildings listed, eligible for listing, or potentially eligible for listing on the NRHP are located in the proposed project site.

No additional impacts to cultural resources would be anticipated under the Proposed Action. All construction would take place in previously developed areas that have no intact cultural resources. Homestead ARB submitted a scoping letter to the Florida SHPO on March 23, 2020. On April 20, 2020, the SHPO provided concurrence with the finding that the Proposed Action would not impact historic resources. Additionally, Homestead ARB submitted letters to three Native American Tribes asking if they had any concerns regarding the Proposed Action. No responses have been received. Correspondence with the SHPO and Native American Tribes is provided in Appendix A.

If any unanticipated discoveries of archaeological resources or cultural items were to occur, work would be temporarily halted at the discovery site until appropriate notifications and consultations were complete, and procedures were in place to minimize adverse effects and/or render disposition of cultural items.

4.1.5.2 No Action Alternative

No new construction or development activities are proposed under the No Action Alternative. Therefore, no impacts to cultural resources would occur.

4.1.6 Noise

Assessing impacts of noise involves several factors, including frequency, content, time of day during which noise occurs, duration, and loudness of the noise. The Proposed Action could have a significant effect on noise if noise-sensitive areas experience a long-term increase in noise exposures at or above a long-term equivalent A-weighted sound level of 70 dB over a 24-hour period, which is the noise level known to cause hearing loss with prolonged exposure (EPA, 1974). However, short-term exposures to elevated noise levels would not cause significant effects.

4.1.6.1 Preferred Alternative

The proposed project area is adjacent to the existing parking apron and across from existing airplane maintenance areas where noise levels range from approximately 70 to 74 dBA.

There would be a short-term moderate impact from noise associated with construction. Construction noise would be greatest early in the construction project, during clearing, grading, foundation work, and paving. Temporary, construction-related, noise impacts would end once construction is complete.

There would be a long-term minor direct impact from noise associated with the operation of the corrosion facility/wash rack. The proposed corrosion facility/wash rack would frequently be exposed to external noise levels of 65 dBA and greater due to existing aircraft operations. Most industrial/manufacturing uses are compatible in the airfield area, but noise level-reduction measures should be included in the design and construction of buildings. The proposed facility would include a bead blast room which would be an internal source of noise exposure when in operation. Engineering controls and work practices would be

put in place to attenuate noise exposure to operations personnel and direct and indirect impacts would be minor. There would be negligible indirect impacts from operational noises due to the existing surrounding noise environment. There are no noise-sensitive areas in the proposed project area and there would be no significant noise impacts.

4.1.6.2 No Action Alternative

No new construction or development activities are proposed under the No Action Alternative. Therefore, no impacts to the noise environment would occur and noise levels at the parcel would continue to range from 70 to 74 dBA.

4.1.7 Hazardous Materials and Solid Waste

The threshold for a significant impact would be: (1) noncompliance with applicable federal and state regulations; (2) disturbance or creation of contaminated sites resulting in adverse effects on human health or the environment; and (3) conditions where established management policies, procedures, and handling capacities are unable to accommodate the proposed activities.

4.1.7.1 Preferred Alternative

Hazardous materials and hazardous waste management impacts would be expected during the construction period and during the operation period.

The proposed facility would include support areas such as a bead blast room and a paint shop room, with a paint booth for painting smaller pieces. Bead blast waste streams have the potential to contain cadmium and chromium from paint and other materials blasted off of aircraft parts during bead blasting. These spaces are considered the “dirty” shops. The “dirty” shops would be a source of hazardous waste and require personnel to follow Homestead ARB’s HWMP. The proposed facility would likely serve as a satellite accumulation point. Waste protocol sheets for commonly generated waste at Homestead ARB, such as bead blast media, have been developed to provide quick reference guidance to shop-level personnel. The guidance provided on each is limited to specific actions that shop-level personnel are expected to perform when accumulating waste and arranging their transfer to the central storage area. Engineering controls and work practices would be put in place to attenuate hazardous materials exposure to personnel. Because these activities are existing activities at Homestead ARB and are being relocated to a new, more compliant facility, there would be negligible direct or indirect impacts from hazardous materials.

4.1.7.2 No Action Alternative

No new construction or development activities are proposed under the No Action Alternative. Minor direct impacts to human health or the environment from the use or generation of hazardous materials and solid waste would occur as a result of corrosion personnel continuing to work in inadequate areas with a space that is not compliant with UFC 4-211-02. There would be no indirect impacts.

4.1.8 Aesthetics and Visual Resources

Effects on aesthetics and visual resources would be considered significant if there was a change in the compatibility and/or coherence of the landscape that may potentially occur in the future due to the proposed project, would be the focus of attention, and tend to become the subject of the view.

4.1.8.1 Preferred Alternative

The proposed project site is not available visually or physically to the public. While the proposed project would replace much of the existing 0.6-acre of green space with a building, it would blend in with the existing environment and generally not be noticed as a change. Construction of the Preferred Alternative would result in negligible direct impacts to the aesthetic and visual resources.

4.1.8.2 No Action Alternative

No new construction or development activities are proposed under the No Action Alternative. Therefore, no impacts to aesthetics and visual resources would occur.

4.1.9 Traffic and Transportation

The threshold level for significant impacts on ground transportation would be a disruption in traffic flow on adjacent roadways or other surrounding roads. Factors considered in determining whether a significant traffic-related impact could occur include the extent to which the considered alternatives would result in: (1) an increase in vehicle trips that would disrupt or alter local traffic patterns; (2) lane closures or other impediments to traffic; (3) activities that would create potential traffic safety hazards; (4) increased conflict with pedestrian and bicycle routes or fixed-route transit; and (5) parking demand that exceeds the supply.

4.1.9.1 Preferred Alternative

There would be minor short-term increases in traffic along 288th Street SW as a result of construction workers coming to and leaving the proposed project area. Long-term traffic volume would remain unchanged as the same number of Homestead ARB personnel would commute to the area following completion of construction.

The gate and fencing associated with the existing boundary of the maintenance apron would be relocated to accommodate construction of the proposed corrosion control facility and wash rack. The relocation would result in temporary road and gate closures due to the construction. These minor adverse impacts would be temporary and traffic controls would be put in place to minimize the impacts.

The increase in traffic that would result from the transport of workers and materials to the proposed project site during construction would not be expected to result in a level of service change to the existing roadways or impede emergency vehicles. Parking, equipment, materials, and staging areas would be located within the proposed project site. Direct and indirect traffic impacts due to construction and construction worker commutes would be temporary and minor.

4.1.9.2 No Action Alternative

No new construction or development activities are proposed under the No Action Alternative. Therefore, there would be no impacts to traffic and transportation.

4.1.10 Safety and Occupational Health

The threshold for a significant impact would be one that would: (1) substantially increase risks associated with the safety of construction personnel, contractors, or the local community; (2) substantially hinder the ability to respond to an emergency; or (3) introduce a new health or safety risk for which the installation is not prepared or does not have adequate management and response plans in place.

4.1.10.1 Preferred Alternative

Implementation of the Proposed Action would result in an increased short-term risk associated with construction contractors performing work. Contractors would be required to establish and maintain safety programs. The proposed project site has an IRP area at the southern end of the parcel. Construction workers would not be at risk of exposure to existing environmental contamination as the design avoids this IRP area and the area would be fenced off. Access to construction work areas would be controlled with fencing and appropriate signs would be posted to further reduce safety risks to outside personnel and the public.

The proposed corrosion control facility/wash rack would contain features that could introduce a health and safety risk due to noise and hazardous materials resulting from the operation of the bead blast room, paint shop room, paint booth. These spaces are considered the “dirty” shops, and these functions, along with the corrosion control hangar bay, would be segregated from the rest of the building. This separation

would be achieved by providing a personal protective equipment cleaning room that would lead to the "dirty" toilet/shower areas for men and women and then transition to the "clean" toilet areas, and then to the other "clean" areas of the building. Engineering controls and work practices would be put in place to attenuate safety and occupational health risks to personnel (as described in Section 4.1.11.1).

The Proposed Action would be implemented in compliance with all applicable federal laws, codes, and regulations and with all applicable laws, ordinances, codes, and regulations of the state of Florida and Miami-Dade County with regard to construction, health, safety, water supply, sanitation, licenses and permits to do business, and all other matters.

The Proposed Action would not pose new or unacceptable safety risks to installation personnel or activities, as these activities already occur at Homestead ARB. There would be potential long-term beneficial health and safety effects from providing a compliant corrosion facility that reduces safety risks to personnel. However, the Preferred Alternative would result in long-term negligible to minor direct adverse impacts on safety and occupational health during operation that would be mitigated with the use of BMPs and implementation of the HWMP.

4.1.10.2 No Action Alternative

There would be no change to current conditions under the No Action Alternative. There would be no temporary health and safety effects during construction.

Corrosion mitigation is operated out of an inadequate facility, posing serious risk to personnel health. Potential long-term beneficial health and safety effects from providing a compliant corrosion facility that reduces safety risks to personnel would not occur, which would be a long-term moderate adverse effect on the safety of those working corrosion mitigation.

4.1.11 Utilities and Infrastructure

The threshold level of significance for utilities and infrastructure is defined as a change in the demand that causes utility providers to be incapable of providing sufficient capacity for the project, reduces their abilities to provide adequate utilities to other customers, or requires substantial additional non-renewable, renewable, or financial resources or upgraded infrastructure to support the demand.

4.1.11.1 Preferred Alternative

Under the Preferred Alternative no significant impacts to the capacities of existing infrastructure systems would be expected. Impacts to the electrical power, water supply, wastewater, and communication systems during construction or operations are expected to be minor.

A potable water main is located onsite, including multiple fire hydrants, which will be relocated and adapted to the proposed project site. The plumbing services will be extended from the new building to existing site utilities.

A new manhole wastewater sewer line would be constructed to accommodate the discharge of the maintenance facility's sewage. Greywater would discharge through the existing OWS for discharge into the existing wastewater sewer line. A lift station may be needed for greywater and a sewage grinder pump may be needed to transmit wastewater. The South District Wastewater Treatment Plant has sufficient capacity to treat current discharge as well as the increase resulting from this proposal (Miami -Dade WASD, 2017).

Utility use at the proposed corrosion facility/wash rack would be greater than that of the existing wash rack and corrosion function as safety features, such as personal protection equipment cleaning room and "dirty" and "clean" showers/toilets, are necessary for compliance with UFC 4-211-02. The facility design would incorporate water saving and recycling measures. The heating and cooling system for the proposed facility would be energy-efficient in accordance with ASHRAE 90.1-2016. Low-flow-type water fixtures and an instantaneous water heater would be used in the corrosion facility/wash rack.

Once the proposed corrosion facility/wash rack is operational, Hangar Building 194 would be reverted to its prior use and the wash rack structure would be retained. It is uncertain what the utility usage at the existing facilities will be once the proposed corrosion facility/wash rack is operational.

Solid waste generation, consisting mostly of building materials, would increase during construction activities with minor adverse effects expected. All base contractors would be required to recycle construction materials and follow the Homestead ARB Integrated Solid Waste Management Plan.

The Preferred Alternative would increase utility usage due to construction of a new facility, but the design would introduce more energy-efficient systems and water-saving techniques resulting in negligible, long-term, direct adverse impacts to utility use.

4.1.11.2 No Action Alternative

There would be no adverse impacts to utilities and infrastructure associated with the No Action Alternative.

4.2 Cumulative Effects

This section presents the recent, present, and foreseeable future projects that were considered during the assessment of cumulative effects of each alternative. Cumulative effects can result from individually insignificant, but collectively significant, actions taking place over a period of time. Among the principles of cumulative effects analysis discussed in the CEQ's guide *Considering Cumulative Effects Under the National Environmental Policy Act*, it is stated: "…for cumulative effects analysis to help the decision maker and inform interested parties, it must be limited through scoping to effects that can be evaluated meaningfully" (CEQ, 1997).

The potential for cumulative effects on the environment from the Preferred Alternative was evaluated by reviewing historical aerial photos to identify recent actions, and by reviewing ongoing and planned actions that could affect the same environmental resources as the Preferred Alternative. Actions considered included construction projects that are underway or are programmed to occur in the near future. Cumulative effects were not analyzed for resources that were eliminated from further consideration. Cumulative effects are detailed in Section 4.2.2 for each resource area that was considered in detail.

4.2.1 Recently Completed Actions, Ongoing Actions, and Planned Actions

A new entry control complex was constructed at Homestead ARB in 2019. It included the realignment of Southwest 288th Street and construction of new roads to accommodate the intended flow through the entry control complex.

All other funded current and proposed projects at Homestead ARB fall into the restoration and modernization category. These are on-base projects that typically would not affect people outside the Homestead ARB fence.

Future mission growth could occur at Homestead ARB. However, at present, there are no other military construction projects at Homestead ARB that might contribute to the cumulative impacts. While future mission growth could be considered a reasonably foreseeable action, there is no planned expansion that can be analyzed.

Should a change in the mission occur, additional NEPA analysis would be required for that action and that NEPA analysis would consider the potential for the growth to interact with this Preferred Alternative.

4.2.2 Cumulative Effects

4.2.2.1 Land Use

The Proposed Action would not affect land use. The proposed project area was chosen because it is located in the urban/industrialized area of Homestead ARB that houses aircraft O&M and the Proposed

Action would be compatible with the existing land uses in the vicinity. There is no potential for cumulative effects on land use from interaction with other past, present, and reasonably foreseeable projects.

4.2.2.2 Soils

Cumulative effects on soils could occur if multiple large construction projects were to occur simultaneously and in proximity to the Preferred Alternative. However, construction BMPs and minimization measures, including but not limited to those identified in Section 3.2.1.2 would occur for all construction on Homestead ARB. With the use of construction BMPs, SWPPP, minimization measures, and dust suppression techniques, no significant cumulative effects on soils would be expected.

4.2.2.3 Water Resources

The impacts to aquifer recharge from an increase in impervious surface area from development of the Preferred Alternative are minimal compared to the size of this aquifer. Only negligible cumulative impacts to groundwater would be anticipated from interaction of the Preferred Alternative with other past, present, and reasonably foreseeable projects.

Impacts from site runoff could interact with other projects that also drain to the canal system; however, appropriate BMPs would be used to prevent site runoff from reaching nearby surface waters. Post-construction stormwater controls would be implemented to prevent an increase in the volume of offsite stormwater runoff from the proposed increase in impervious area. Projects identified in Section 4.2.1 would also be required to comply with stormwater regulations. No cumulative impacts to surface waters from interaction of the Preferred Alternative with other past, present, and reasonably foreseeable projects would likely occur.

4.2.2.4 Biological Resources

Development within Homestead ARB occurs regularly, resulting in reductions in the amount of green space. Recently completed projects include the construction of a new entry control complex. The proposed project could disturb approximately 0.6-acre of urban lawn with scattered trees and shrubs. There would be minimal impacts to general wildlife and plants and the site design would likely avoid impacting the Small's milkpea population that occurs on the parcel.

There is similar habitat or of higher quality habitat outside of the industrial area of Homestead ARB. Strict guidelines and management practices for the conservation and recovery of threatened and endangered species and their habitat on Homestead ARB would be implemented and cumulative effects on special status species would be minimal.

Negligible cumulative impacts to biological resources from interaction of the Preferred Alternative with other past, present, and reasonably foreseeable projects would likely occur.

4.2.2.5 Air Quality

The short-term emissions from construction of the proposed corrosion control facility would not increase air pollutants to levels that exceed regulatory thresholds in the region, and impacts would be short term in nature. The emissions would be temporary, localized, and eliminated after the activity is completed. These emissions would quickly dissipate as they are transported from the activity source, thereby preventing significant contribution to cumulative impacts to air quality.

The Preferred Alternative would result in both short-term cumulative effects on air quality from the generation of fugitive dust when added to those from recently completed and planned construction projects. Impacts would not be significant because dust suppression techniques would be used during construction and operation to minimize impacts from dust.

The limited amount of GHG emissions from the Preferred Alternative would not contribute significantly to climate change, but any emission of GHGs represents an incremental increase in global GHG concentrations.

4.2.2.6 Cultural Resources

The Proposed Action would not affect cultural resources. Therefore, no cumulative impacts to cultural resources would result from interaction of the Proposed Action with other past, present, and reasonably foreseeable projects.

4.2.2.7 Utilities and Infrastructure

Cumulative effects on utilities and infrastructure could occur if multiple large construction projects were to occur simultaneously and in proximity to the Preferred Alternative. However, design features incorporating more energy-efficient systems and water saving techniques, would be incorporated into all construction projects on Homestead ARB. Therefore, no significant cumulative effects on utilities and infrastructure would be expected.

4.2.2.8 Noise

Construction of the new corrosion facility/wash rack would result in a short-term increase in noise, but would not impact any noise-sensitive receptors. Operation of the facility would result in periodic elevated noise levels when specific equipment is in use. Impacts would not be significant because BMPs would be implemented during construction and operation to minimize impacts from noise. No long-term cumulative noise impact would be expected from implementation of the Preferred Alternative.

4.2.2.9 Hazardous Materials and Solid Waste

The use of hazardous materials associated with additions of new facilities, and modifications to existing facilities and infrastructure, is ongoing at Homestead ARB. Homestead ARB maintains and implements an HWMP that prescribes responsibilities, policies, and procedures for storing and managing hazardous materials and wastes within the installation and provides procedures for responding to hazardous material/waste spills and disposal of hazardous materials generated during aircraft maintenance (Homestead ARB, 2012). Continued implementation of this plan for Homestead ARB activities would prevent or reduce the potential for cumulative effects. Adverse cumulative effects would not be anticipated for the Preferred Alternative.

4.2.2.10 Aesthetics and Visual Resources

A cumulative impact to visual resources could occur if multiple projects at Homestead ARB were to substantially change the visual character of the area in the urban/industrialized area. However, the Preferred Alternative would not be expected to result in a cumulatively significant impact to aesthetics and visual resources.

4.2.2.11 Traffic and Transportation

Infrastructure projects and other planned or ongoing construction within Homestead ARB could occur simultaneously with implementation of the Preferred Alternative, which could lead to cumulative traffic effects. Other projects ongoing or planned for the future within Homestead ARB that could affect traffic within the cantonment would have traffic control plans to reduce effects. Temporary effects on traffic could occur during construction of the Preferred Alternative; however, these adverse effects would be short-term and negligible to minor and would not contribute to a long-term cumulative transportation effect.

4.2.2.12 Safety and Occupational Health

Potential impacts to safety and occupational health would occur during construction and operation of the facility. However, the Proposed Action would not pose new or unacceptable safety risks to installation personnel or activities, as these activities already occur at Homestead ARB. The Preferred Alternative would result in long-term negligible to minor direct adverse impacts on safety and occupational health during operation. The No Action Alternative would result in long-term moderate direct adverse impacts to

safety and occupational health. Adverse cumulative effects would not be anticipated for the Preferred Alternative.

4.3 Conclusions

This EA contains a comprehensive evaluation of the existing conditions and environmental consequences (direct, indirect, and cumulative) of implementing the Proposed Action's Preferred Alternative and the No Action Alternative, as required by NEPA. Table 4-2 summarizes the effects of the Preferred Alternative and the No Action Alternative.

Table 4-2. Summary of Environmental Impacts for the Preferred Alternative and the No Action Alternative

Impact Category	Preferred Alternative Degree of Impact			No Action Alternative Degree of Impact			EA Section Where Details are Discussed
	Significant	Insignificant	No Impact	Significant	Insignificant	No Impact	
Land Use			X			X	Section 3.1.1
Geologic Resources			X			X	Section 3.1.2
Topography			X			X	Section 3.1.3
Wetlands and Floodplains			X			X	Section 3.1.4
Coastal Resources			X			X	Section 3.1.5
Airspace			X			X	Section 3.1.6
Socioeconomics			X			X	Section 3.1.7
Environmental Justice			X			X	Section 3.1.8
Protection of Children			X			X	Section 3.1.9
Soils		X			X		Sections 3.2.1 and 4.1.1
Water Resources		X			X		Sections 3.2.2 and 4.1.2
Biological Resources		X			X		Sections 3.2.3 and 4.1.3
Air Quality		X			X		Sections 3.2.4 and 4.1.4
Cultural Resources		X			X		Sections 3.2.5 and 4.1.5
Noise		X			X		Sections 3.2.6 and 4.1.6
Hazardous Materials and Solid Waste		X			X		Sections 3.2.7 and 4.1.7
Aesthetic and Visual Resources		X			X		Sections 3.2.8 and 4.1.8
Traffic and Transportation		X			X		Sections 3.2.9 and 4.1.9
Safety and Occupational Health		X			X		Sections 3.2.10 and 4.1.10
Utilities and Infrastructure		X			X		Sections 3.2.11 and 4.1.11

The following BMPs and mitigation/conservation measures would be implemented under the Preferred Alternative:

- Stormwater impacts to runoff would be reduced by reseeding disturbed areas, incorporating low-maintenance plant species, installing sediment fencing, applying water to disturbed soil, and limiting soil disturbance only to areas where construction is proposed. Temporary detention basins would be

incorporated, as necessary, into the design to manage large quantities of stormwater. A stormwater permit from SFWMD would be obtained prior to construction activities.

- Air quality impacts would be reduced by applying water to, or using other stabilization measures on, areas of bare soil or soil piles, creating wind breaks, and covering dump trucks that transport materials that could become airborne.
- Contractors would maintain construction equipment in accordance with manufacturers' specifications to keep unnecessary noise impacts and air emissions to a minimum.
- BMPs to reduce soil and water resource impacts would be selected based on site specific conditions and could include, but would not be limited to sediment barriers (silt fence or straw wattles), temporary detention basins, mulching of exposed soils, and prompt revegetation of disturbed areas
- Safety and occupation health impacts would be reduced by segregating the "dirty shops", such as the bead blast areas and corrosion control hangar bay, from the rest of the buildings by providing a personal protective equipment cleaning room that would lead to the "dirty" toilet/shower areas for men and women and then transition to the "clean" toilet areas, and then to the other "clean" areas of the building.
- Small's milkpea is present on the parcel but it is expected the site design will avoid any populations of the federally endangered plant. Small's milkpea populations will be visibly marked and fenced to prevent inadvertent entry by equipment. If encroachment into the Small's milkpea populations is unavoidable due to site layout, then additional consultation with USFWS will determine appropriate management activities to reduce the potential impacts to this federally protected species.
- Construction would primarily occur on weekdays during daylight hours. Construction may also occur occasionally during daylight hours on weekends.
- Temporary fencing would be installed around the construction site to prevent unauthorized access to the active construction zone.
- If any unanticipated discoveries of archaeological resources or cultural items were to occur, work would be temporarily halted at the discovery site until appropriate notifications and consultations were complete, and procedures were in place to minimize adverse effects and/or render disposition of cultural items.
- During construction, signs would be placed on Westover Boulevard to alert drivers to changes in traffic patterns and trucks entering and exiting the road.

Based on the findings of this EA, there would be no significant impact resulting from the Proposed Action's Preferred Alternative. A FONSI was prepared to accompany this EA, which concludes that preparation of an environmental impact statement is not required for this Proposed Action

5. List of Preparers, Agencies Contacted, and Distribution

5.1 Preparers

Table 5-1. List of Preparers

Name	Education and Experience	Primary Responsibilities
Andrea Naccarato/Jacobs	B.S., Biology (minors in Chemistry and Geography-Environmental Studies), Radford University, 1993 19 years of experience in NEPA project management	Project Manager
Betsy Jorgensen/Jacobs	B.S., Biology, Roanoke College, 2004 14 years of NEPA and environmental experience for DoD and other federal agencies	Project Biologist, responsible for preparation of EA text
Caitlin Santinelli/Jacobs	B.S., Earth and Atmospheric Sciences, Georgia Tech, 2010; B.S., 10 years of experience in air emission inventories and air quality issues	Technical Specialist, primarily responsible for air quality analysis
Rich Reaves/Jacobs	Ph.D., Wetland and Wildlife Ecology, Purdue University, 1995; B.S., Wildlife Ecology and Resource Management, University of Wyoming, 1986 25 years of experience in NEPA analysis, environmental permitting, ecological surveys, and mitigation design	Senior technical review and quality assurance of the EA

5.2 Agencies Contacted

- USFWS
- SHPO
- Biscayne National Park
- National Park Service, Florida/Caribbean EPMT
- Everglades National Park
- Seminole Tribe of Florida
- The Seminole Nation of Oklahoma
- Miccosukee Tribe of Indians of Florida
- Florida Clearinghouse

5.3 Distribution

The draft final EA and FONSI were made available for public and agency review for a period of 30 days online at https://www.homestead.afrc.af.mil/About-Us/SusOps/. Additionally, USFWS was provided the draft final EA for review during the public and agency review period and the Florida Clearinghouse was provided the draft final EA for a 60-day review. A copy of the Notice of Availability is included in Appendix B.

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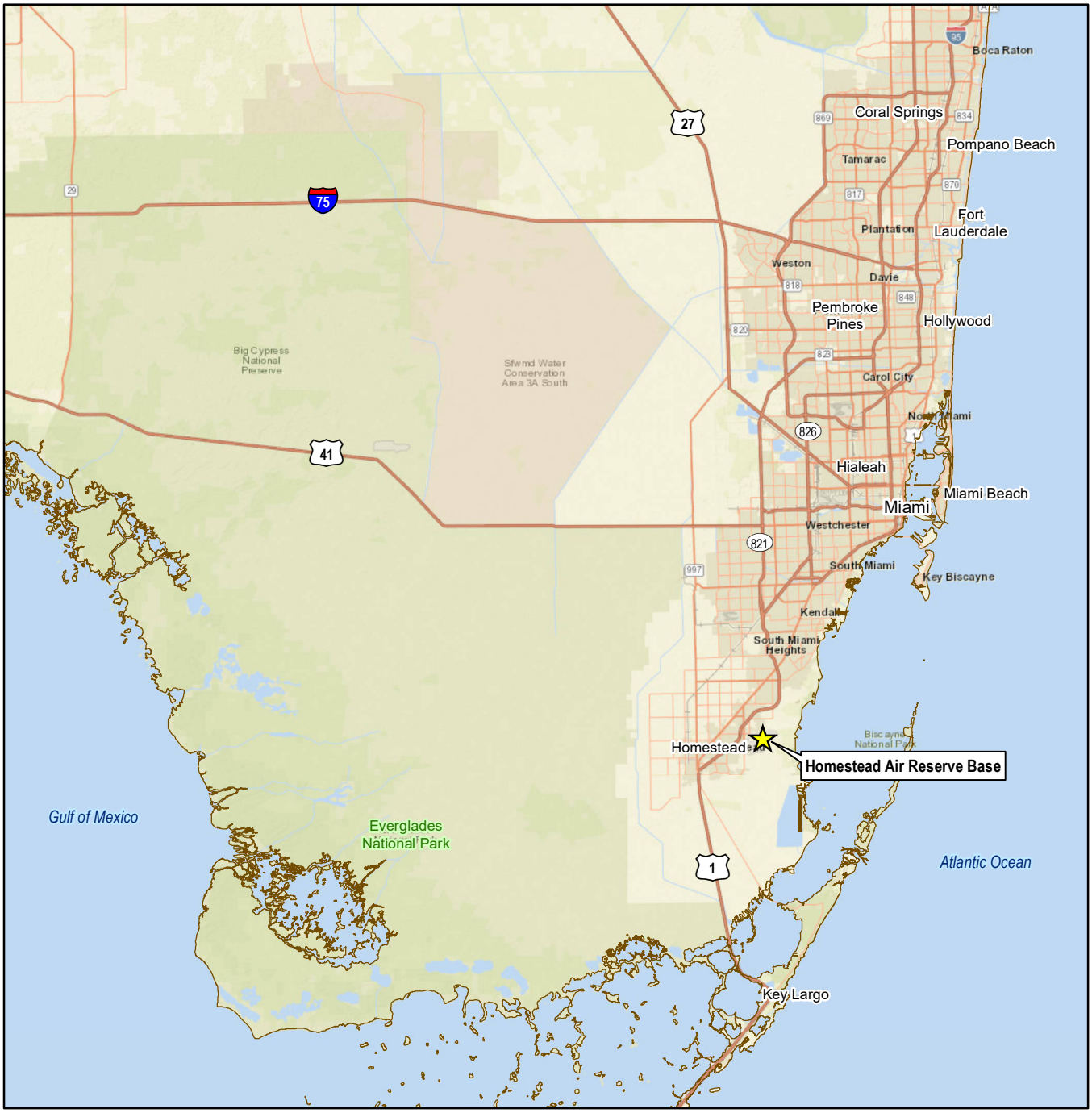
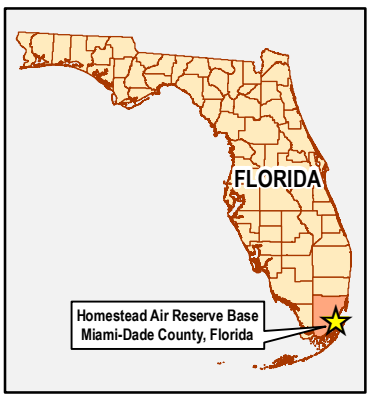
Figures





Legend

★ Homestead Air Reserve Base

Source:
1) Esri World Street Map

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Figure 1-1
Vicinity Map
Proposed Corrosion Facility/Wash Rack
Homestead Air Reserve Base
Homestead, Florida

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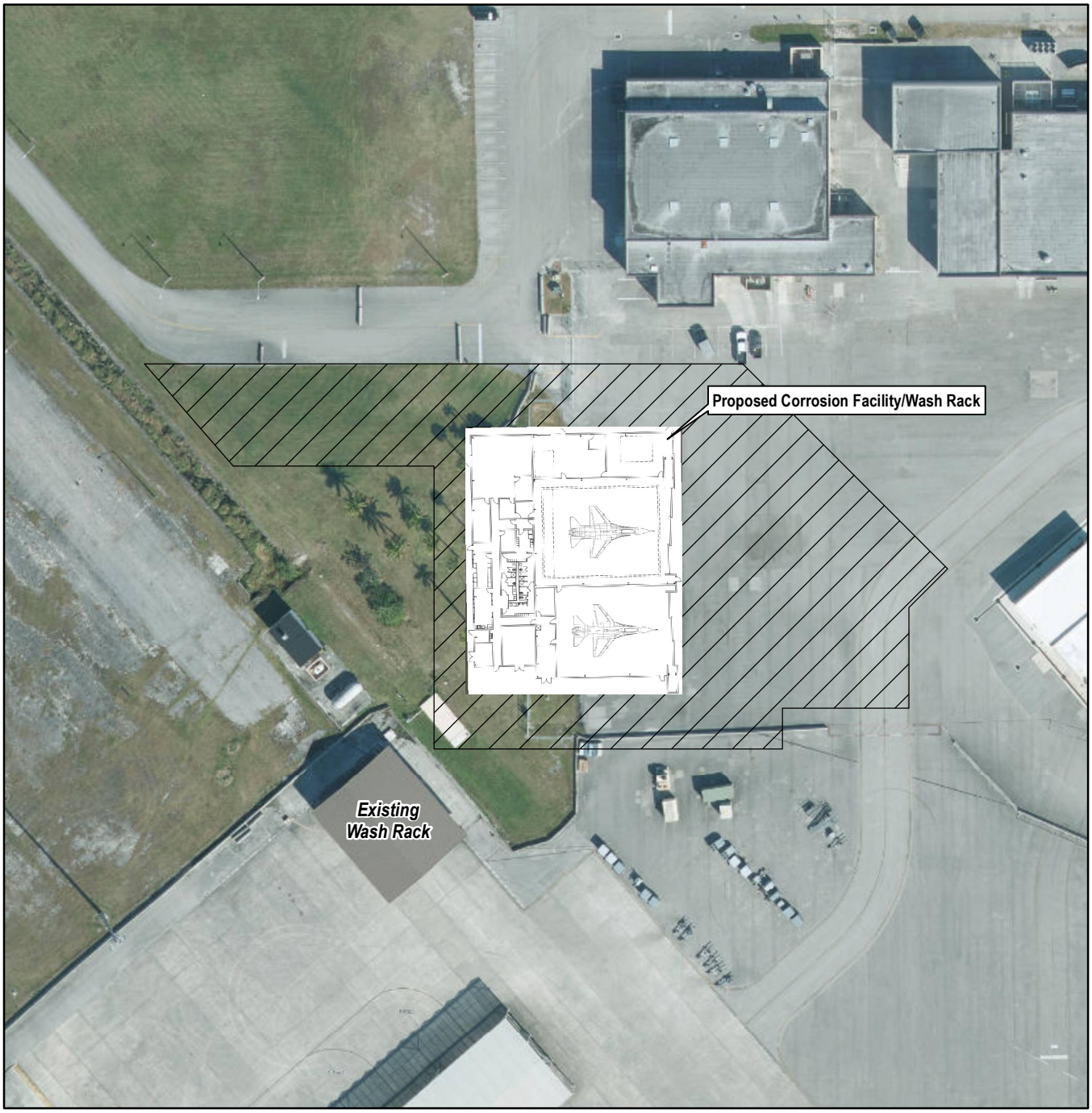

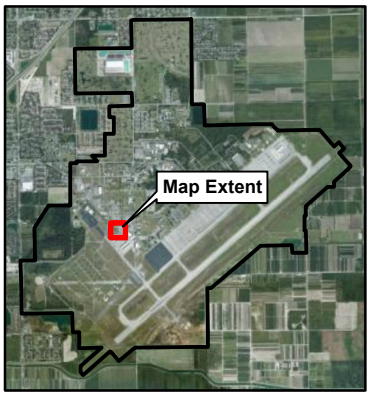

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Proposed Corrosion Facility/Wash Rack
Approximate Limits of Disturbance

Source:
1) Esri World Imagery

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Figure 2-1
Project Area Map
Proposed Corrosion Facility/Wash Rack
Homestead Air Reserve Base Homestead, Florida

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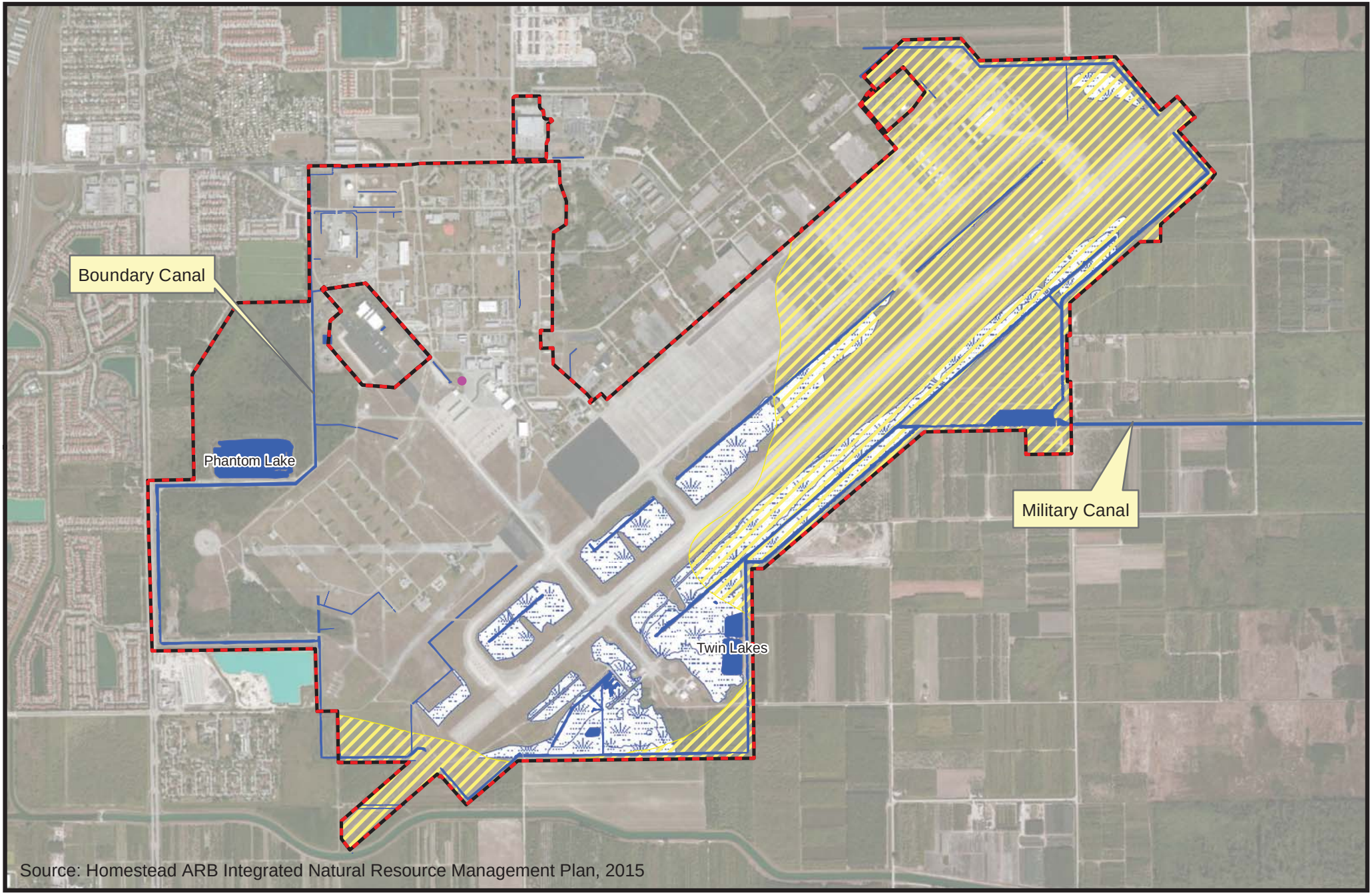

Figure 3-1
Surface Waters Features, Wetlands, and Flood Areas
Proposed Corrosion Facility/Wash Rack
Homestead Air Reserve Base
Homestead, Florida

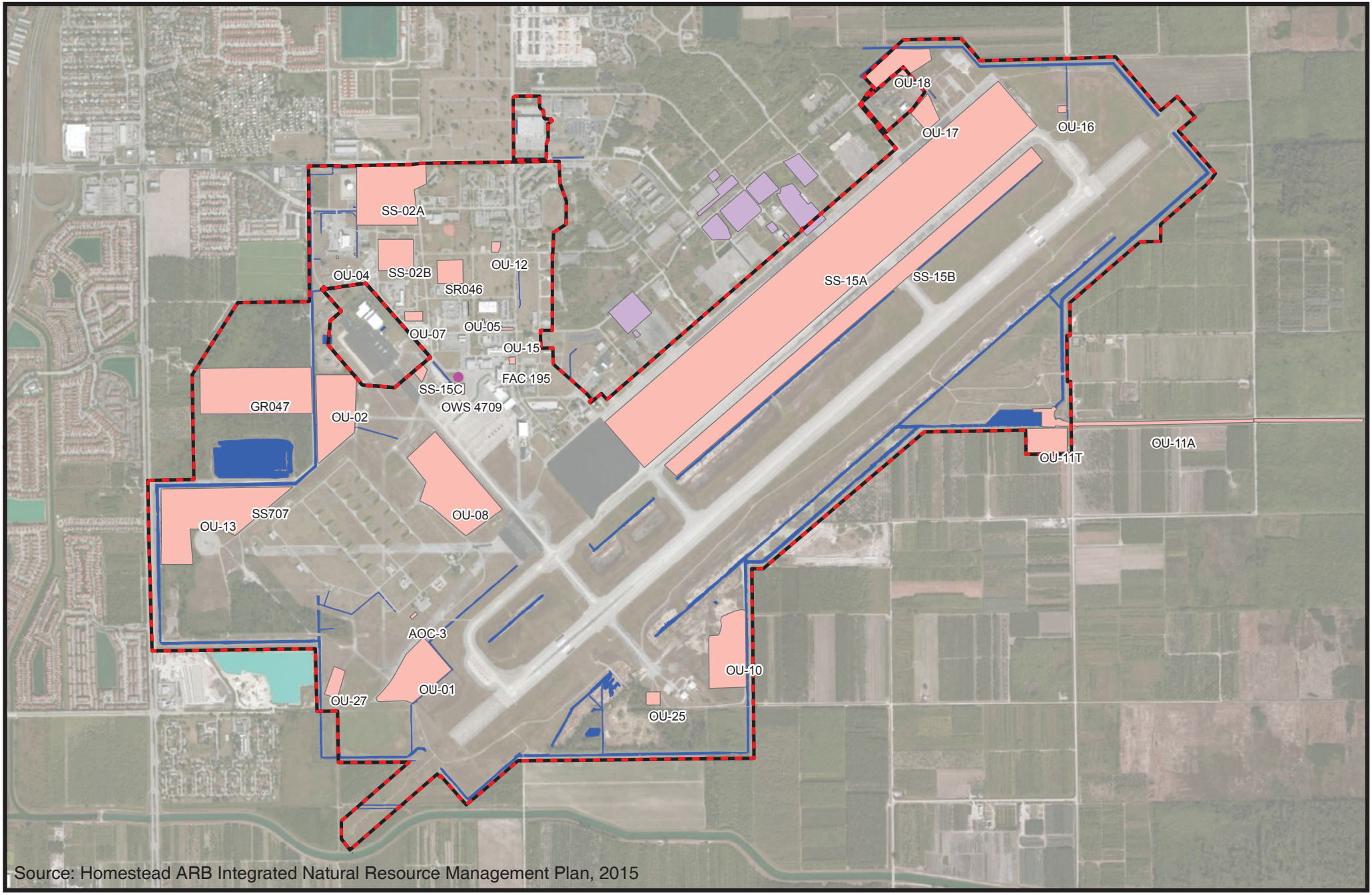

Figure 3-2
IRP Sites
Proposed Corrosion Facility/Wash Rack
Homestead Air Reserve Base
Homestead, Florida

Appendix A
Coordination Letters and Responses

General Letter Example and Distribution List

USFWS and SHPO General Letters

DEPARTMENT OF THE AIR FORCE
AIR FORCE RESERVE COMMAND

23 March 2020

MEMORANDUM FOR DISTRIBUTION

FROM: 482nd MSG/CEV
29350 Westover Street
Building 232
Homestead ARB 33039-1299

SUBJECT: Preparation of an Environmental Assessment for the Construction of a Corrosion Facility/Wash Rack at Homestead Air Reserve Base, Homestead, Florida

1. The U.S. Air Force Reserve Command (AFRC) and Homestead Air Reserve Base (ARB) are preparing an environmental assessment (EA) in accordance with the National Environmental Policy Act of 1969 (NEPA). The EA will analyze the potential impacts and environmental consequences associated with the construction and operation of a proposed corrosion facility/wash rack. The proposed corrosion facility/wash rack would be constructed on an approximately 1.5-acre parcel of previously disturbed land. The need for the Proposed Action is described in the attached Description of Proposed Action and Alternatives (DOPAA) (Attachment 1).

2. This memorandum and the attached DOPAA are being sent as part of the scoping process for the EA. The intent of the EA is to address the potential environmental impacts of constructing and operating the proposed corrosion facility/wash rack at Homestead ARB.

3. We are sending the DOPAA for your input, so that we can address and analyze the issues of concern in the EA. We respectfully request your review and comments in accordance with Executive Order 12372, "Intergovernmental Review of Federal Programs." Please provide written comments or information regarding the Proposed Action at your earliest convenience, but no later than 30 days from the receipt of this memorandum.

4. Also enclosed is a listing of the federal, state, and local agencies that have been contacted (Attachment 2). If there are any additional agencies you think should review and comment on the Proposed Action, please provide us with the appropriate contact information so that we may include them in our scoping efforts.

5. Please let us know if your agency is interested in receiving a link to the draft EA that will be available for government and public comment in April 2020.

6. If you have any questions about this action or any concerns, please contact:

Josh Friers
482 MSG/CEV
29350 Westover Street, Bldg 232
Homestead ARB, FL 33039
joshua.friers.2@us.af.mil.

LAWRENCE VENTURA, JR.,
Chief, Environmental Flight

Two Attachments:
1. DOPAA
2. Distribution List

Attachment 1
DOPAA

[DOPAA submitted with letter, but not inserted here in the EA Appendix.]

Attachment 2
Distribution List

Interagency and Intergovernmental Coordination List for Environmental Assessment for Proposed Corrosion Facility/Wash Rack at Homestead Air Reserve Base, Homestead, Florida

Federal Agency Contacts

Brian Powell
Fish and Wildlife Biologist
U.S. Fish and Wildlife Service
South Florida Ecological Service Office
1339 20th Street
Vero Beach, FL 32960
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(772) 562-4288 fax
brian_powell@fws.gov

Elsa M. Alvear
Chief of Resource Management
Biscayne National Park
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Homestead, FL 33033
(786) 335-3623 direct
(305) 230-1144 ext. 002 main
(305) 230-1190 fax
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Brian Lockwood
Liason
National Park Service
Florida/Caribbean EPMT
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Palmetto Bay, FL 33157
(786) 249-0073 office

Brien Culhane
Chief of Planning and Compliance
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Fred Herling
Planner
Everglades National Park
40001 S.R. 9336
Homestead, FL 33033
(305) 242-7704
fred_herling@nps.gov

Tribal Governments

Seminole Tribe of Florida
Chairman – Marcellus W. Osceola, Jr.
Environmental Resources Management Department – Craig Tepper
6300 Stirling Road
Hollywood, FL 33024
(954) 965-4380 ext. 202 (v)
(954) 962-8727 fax
ctepper@semtribe.com

The Seminole Nation of Oklahoma
Principal Chief – Leonard Harjo
PO Box 1498
Wewoka, OK 74884
(405) 257-7200

Miccosukee Tribe of Indians of Florida
Chairman – Billy Cypress
PO Box 440021
Miami, FL 33144
(305) 223-8380 (v)
(305) 553-3644 fax

DEPARTMENT OF THE AIR FORCE
AIR FORCE RESERVE COMMAND

23 March 2020

Ms. Roxanna Hinzman
U.S. Fish and Wildlife Service, Vero Beach Field Office
1339 20th Street
Vero Beach, Florida 32960-3559
772-562-3909

Subject: Environmental Assessment for the Construction of a Corrosion Facility/Wash Rack for Homestead Air Reserve Base, Homestead, Florida

Dear Ms. Hinzman:

Homestead Air Reserve Base (ARB) is preparing an environmental assessment (EA) for a proposed corrosion facility/wash rack. The EA will address the potential environmental and socioeconomic impacts associated with the Proposed Action, which is the construction and operation of a two-bay hangar facility for aircraft corrosion mitigation/maintenance and wash rack functions. A preferred alternative and No Action Alternative also will be considered in the EA.

This letter is being sent as part of the agency scoping for the EA and requests your input regarding any issues of concern to the U.S. Fish and Wildlife Service (USFWS) relevant for consideration in the National Environmental Policy Act analysis.

The attached figures show the location of the Proposed Action at the northern end of the active Mako ramp. The proposed corrosion facility/wash rack would be constructed on an approximately 1.5-acre parcel of previously disturbed land. The Proposed Action would be implemented in accordance with the installation's Integrated Natural Resources Management Plan. No streams or wetlands would be directly impacted as a result of the Proposed Action.

Based on a natural resources survey conducted for this project, Small's milk pea (*Galactia smalii*) occurs in the western portion of the 1.5-acre parcel. Plants were growing in a mowed area consisting of a mix of lawn grasses (Zoysia, St. Augustine), weeds, and remnant pine rockland plants. The attached figures show the location of the plants in relation to the construction boundaries. There would be no impacts to the existing population of Small's milk pea. No impacts to protected species or their habitats are anticipated from implementation of the Proposed Action.

This letter is not a request for consultation with the USFWS. Any consultation that may be required as a result of the Proposed Action would be handled separately. Upon request, your office will be provided with a copy of the complete EA for review and comment.

If your office has any questions or concerns, please contact:

Josh Friers
482 MSG/CEV
29350 Westover Street, Bldg 232
Homestead ARB, FL 33039
joshua.friers.2@us.af.mil.

LAWRENCE VENTURA, JR.
Chief, Environmental Flight

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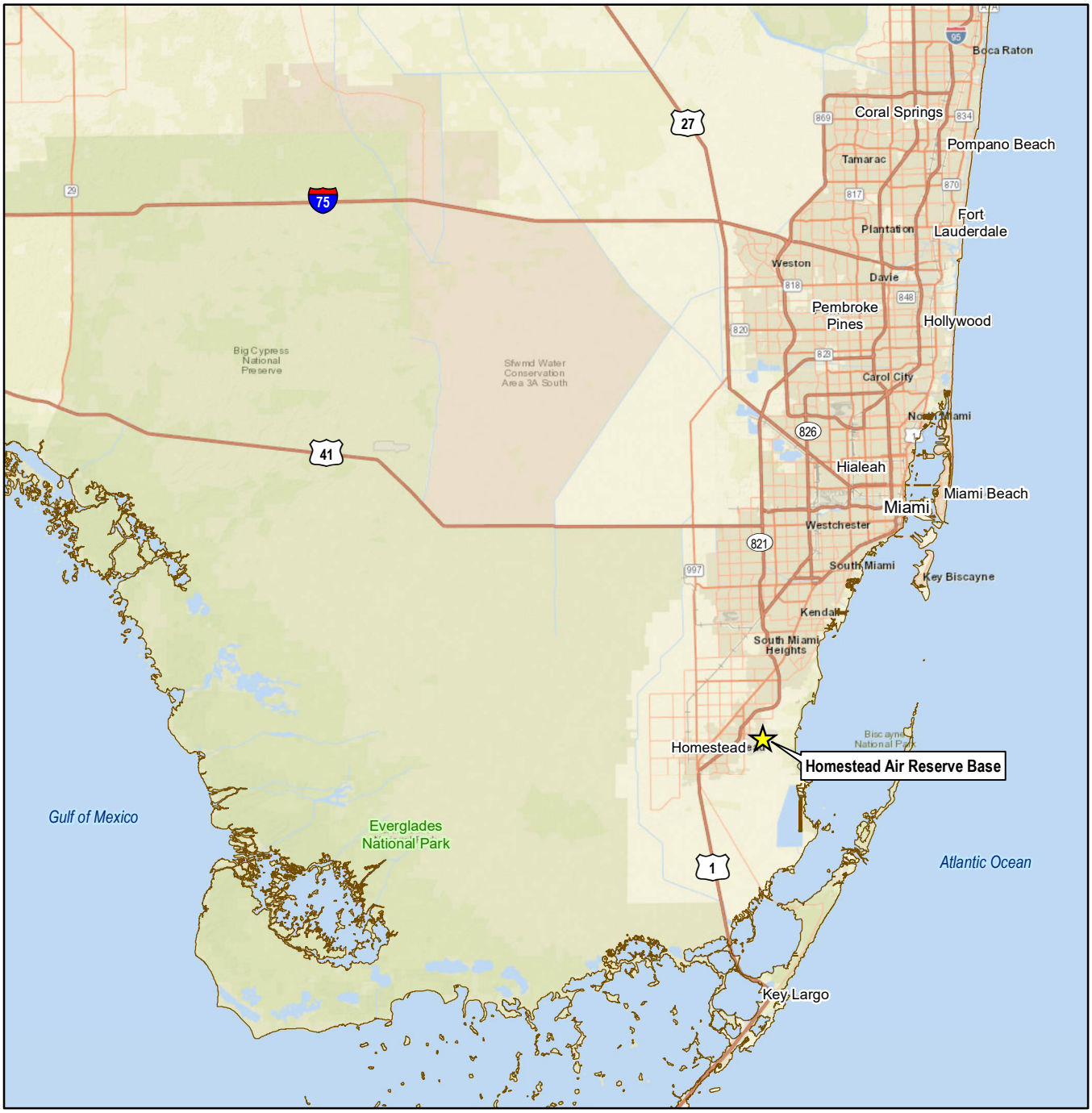
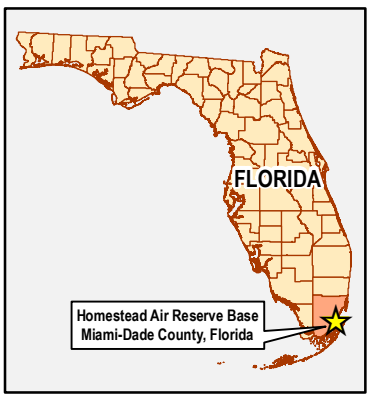
Figures





Legend

★ Homestead Air Reserve Base

Source:
1) Esri World Street Map

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Figure 1-1
Vicinity Map
Proposed Corrosion Facility/Wash Rack
Homestead Air Reserve Base
Homestead, Florida

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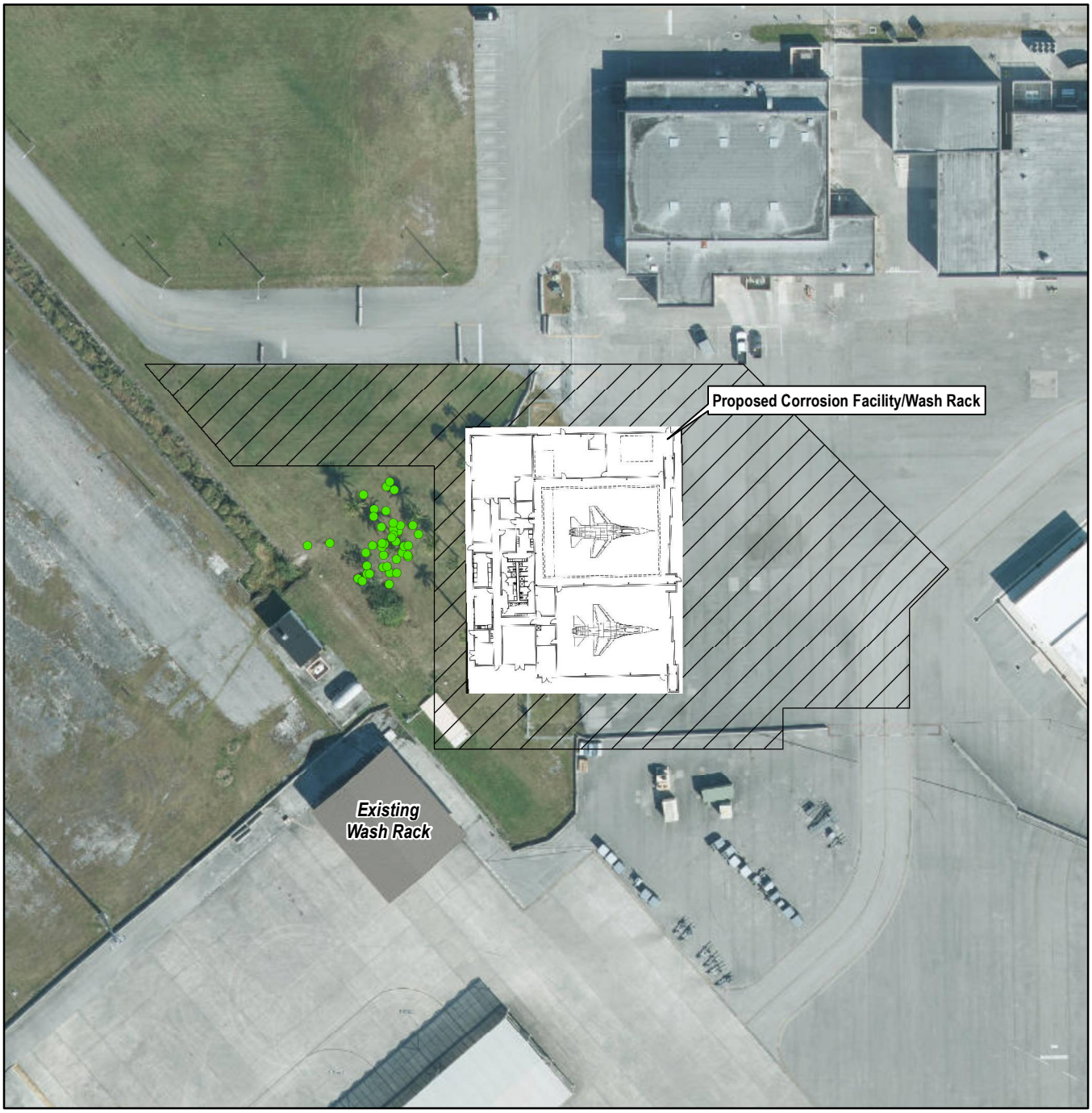

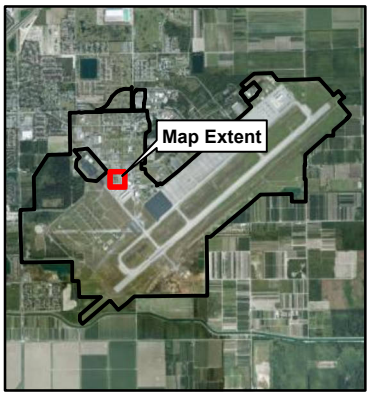

Legend

Proposed Corrosion Facility/Wash Rack
Approximate Limits of Disturbance

Small's Milkpea Location

Source:
1) Esri World Imagery

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Feet

Figure 3-1
Project Area Map
Proposed Corrosion Facility/Wash Rack
Homestead Air Reserve Base
Homestead, Florida

DEPARTMENT OF THE AIR FORCE
AIR FORCE RESERVE COMMAND

23 March 2020

Mr. Timothy Parsons, Ph.D.
State Historic Preservation Officer
Florida Division of Historical Resources
500 South Bronough Street
R.A. Gray Building
Tallahassee, Florida 32399-0250
850-245-6333

Subject: Environmental Assessment for the Construction of a Corrosion Facility/Wash Rack for Homestead Air Reserve Base, Homestead, Florida

Dear Mr. Parsons:

Homestead Air Reserve Base (ARB) is preparing an environmental assessment (EA) for a new corrosion facility/wash rack. The EA will address the potential environmental and socioeconomic impacts associated with the Proposed Action, which is the construction and operation of a two-bay hangar facility for aircraft corrosion mitigation/maintenance and wash rack functions. A preferred alternative and No Action Alternative also will be considered in the EA.

This letter requests your input regarding any issues of concern to the Florida State Historic Preservation Office relevant for consideration in the National Environmental Policy Act analysis.

The attached figures show the location of the Proposed Action at the northern end of the active Mako ramp. The proposed corrosion facility/wash rack would be constructed on an approximately 1.5-acre parcel of previously disturbed land. The Proposed Action would be implemented in accordance with the installation's Integrated Cultural Resources Management Plan.

According to the Florida Department of State Division of Historical Resources, no archaeological or historical sites are located at Homestead ARB. Therefore, archaeological or historical sites are not likely to occur on the subject property. No traditional cultural properties or other items of interest to Native American tribes have been identified at the Base.

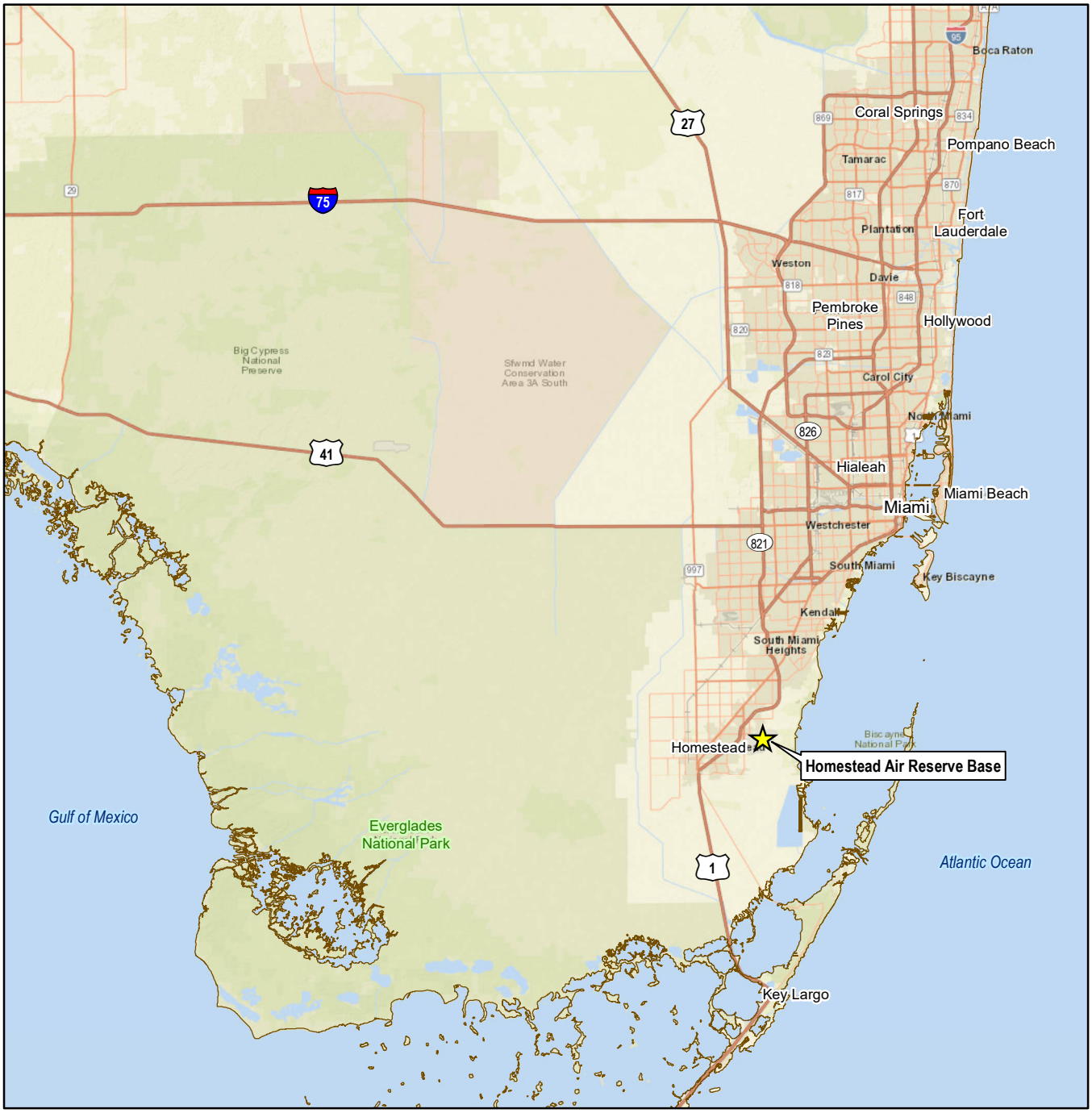
Your office will be given the opportunity to comment on the EA. This letter is not a request for Section 106 consultation. Any consultation that may be required as a result of the Proposed Action would be handled separately.

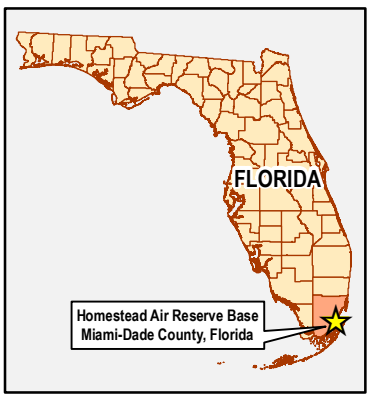
If your office has any questions or concerns, please contact:

Josh Friers
482 MSG/CEV
29350 Westover Street, Bldg 232
Homestead ARB, FL 33039
joshua.friers.2@us.af.mil.

LAWRENCE VENTURA, JR.
Chief, Environmental Flight

Encls.
Figures





Legend

★ Homestead Air Reserve Base

Source:
1) Esri World Street Map

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Miles

Figure 1-1
Vicinity Map
Proposed Corrosion Facility/Wash Rack
Homestead Air Reserve Base
Homestead, Florida

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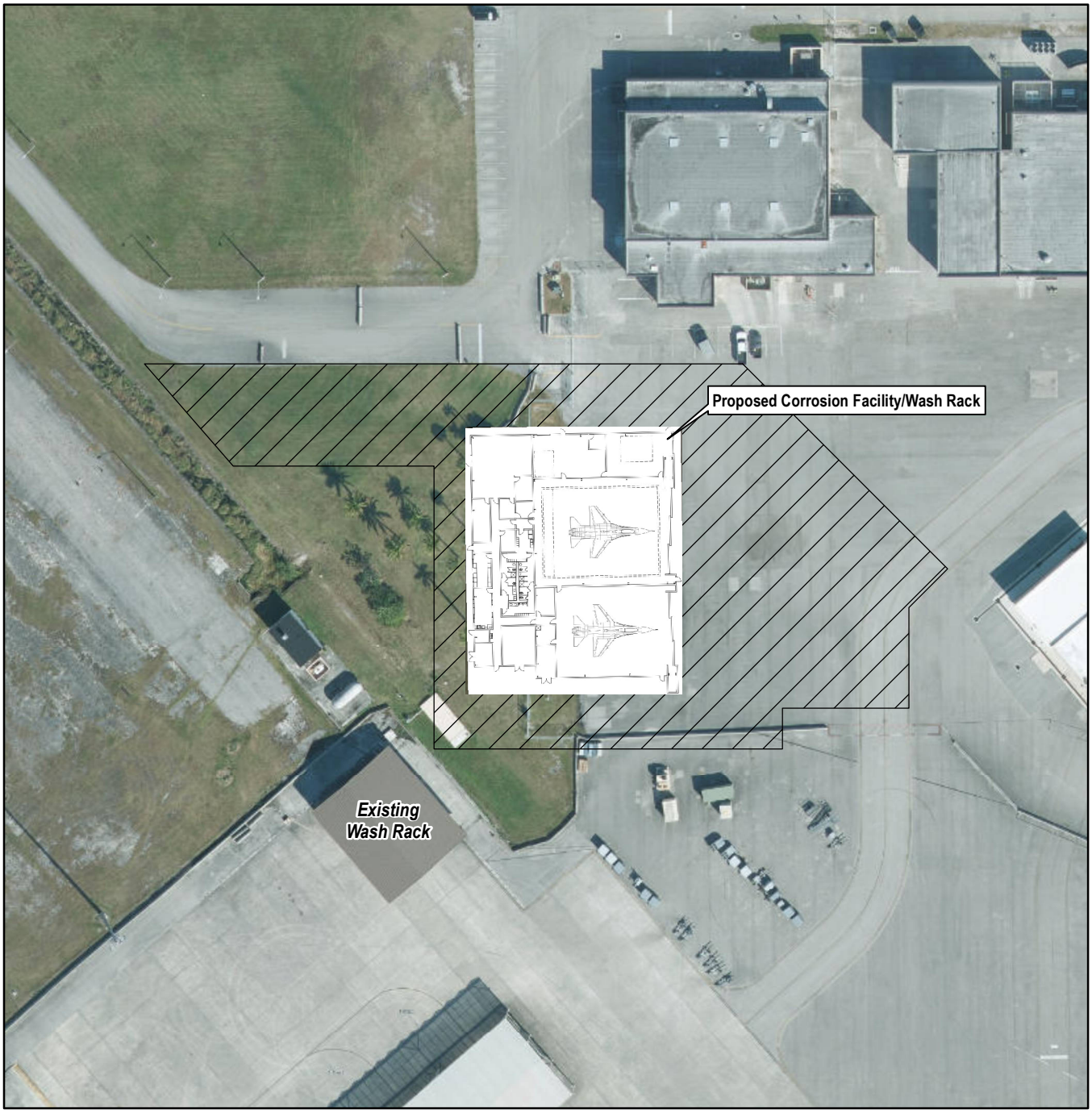

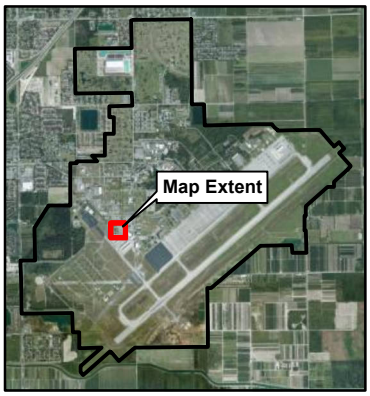

Legend

Proposed Corrosion Facility/Wash Rack
Approximate Limits of Disturbance

Source:
1) Esri World Imagery

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Figure 2-1
Project Area Map
Proposed Corrosion Facility/Wash Rack
Homestead Air Reserve Base Homestead, Florida

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Historical (1993) SHPO Letter

1989804

FLORIDA DEPARTMENT OF STATE
Jim Smith
Secretary of State
DIVISION OF HISTORICAL RESOURCES
R.A. Gray Building
500 South Bronough
Tallahassee, Florida 32399-0250
Director's Office (904) 488-1480
Telecopier Number (FAX) (904) 488-3353

PFN: 932634

In Reply Refer To:
Susan Hammersten
Compliance Review
Section, DHR
(904) 487-2333

September 16, 1993

Gary P. Baumgartel, Lt Col
HQ AFCEE/ESE
8106 Chennault Road
Brooks AFB, Texas 78235-5318

RE: Disposal and Reuse in Support of Realignment
Homestead Air Force Base
Homestead, Dade County, Florida

Dear Col. Baumgartel:

In accordance with the procedures contained in 36 C.F.R., Part 800 ("Protection of Historic Properties"), we have reviewed the referenced project(s) for possible impact to historic properties listed, or eligible for listing, in the National Register of Historic Places. The authority for this procedure is the National Historic Preservation Act of 1966 (Public Law 89-665), as amended.

A review of our files indicates that there are no recorded archaeological sites or historic structures located at Homestead Air Force Base. Furthermore, it is the opinion of this office that it is unlikely that any significant archaeological sites or historic structures will be found in the area affected by the referenced project. Therefore, it is the opinion of this office that the proposed project will have no effect on any historic properties listed, or eligible for listing in the National Register of Historic Places.

If you have any questions concerning our comments, please do not hesitate to contact us. Your interest in protecting Florida's historic properties is appreciated.

Sincerely,

Laura A. Kammerer

for George W. Percy, Director
Division of Historical Resources
and
State Historic Preservation Officer

GWP/Hsh

Archaeological Research · Florida Folklife Programs · Historic Preservation · Museum of Florida History

Atch 2

M-3

Tribal Letter Example

Distribution of Tribal Letter:

Seminole Tribe of Florida
Chairman – Marcellus W. Osceola, Jr.
Environmental Resources Management Department – Craig Tepper
6300 Stirling Road
Hollywood, FL 33024

The Seminole Nation of Oklahoma
Principal Chief – Leonard Harjo
PO Box 1498
Wewoka, OK 74884

Miccosukee Tribe of Indians of Florida
Chairman – Billy Cypress
PO Box 440021
Miami, FL 33194

DEPARTMENT OF THE AIR FORCE
AIR FORCE RESERVE COMMAND

16 December 2019

Miccosukee Tribe of Indians of Florida

Billy Cyprus
PO Box 4440021
Miami Fl 32399

Subject: Environmental Assessment for the Construction of a Corrosion Facility/Wash Rack for Homestead Air Reserve Base, Homestead, Florida

Dear Mr. Billy Cyprus

Homestead Air Reserve Base (ARB) is preparing an environmental assessment (EA) for a proposed corrosion facility/wash rack. The EA will address the potential environmental and socioeconomic impacts associated with the Proposed Action, which is the construction and operation of a two-bay hangar facility for aircraft corrosion mitigation/ maintenance and wash rack functions. A preferred alternative and No Action Alternative also will be considered in the EA.

The attached figures show the location of the Proposed Action at the northern end of the active Mako ramp. The proposed corrosion facility/wash rack would be constructed on an approximately 1.5-acre parcel of previously disturbed land. The Proposed Action would be implemented in accordance with the installation's Integrated Cultural Resources Management Plan (ICRMP).

Homestead ARB understands its unique relationship with federally recognized Native American Tribes and takes its consultation responsibilities seriously. In accordance with the National Historic Preservation Act of 1966, as amended, and to ensure the effects of the proposed project on properties listed in, or eligible for listing in, the NRHP are accounted for, the Air Force Reserve Command and March ARB are initiating Section 106 consultation with your tribe pursuant to Title 36 *Code of Federal Regulations* Section 800.2.

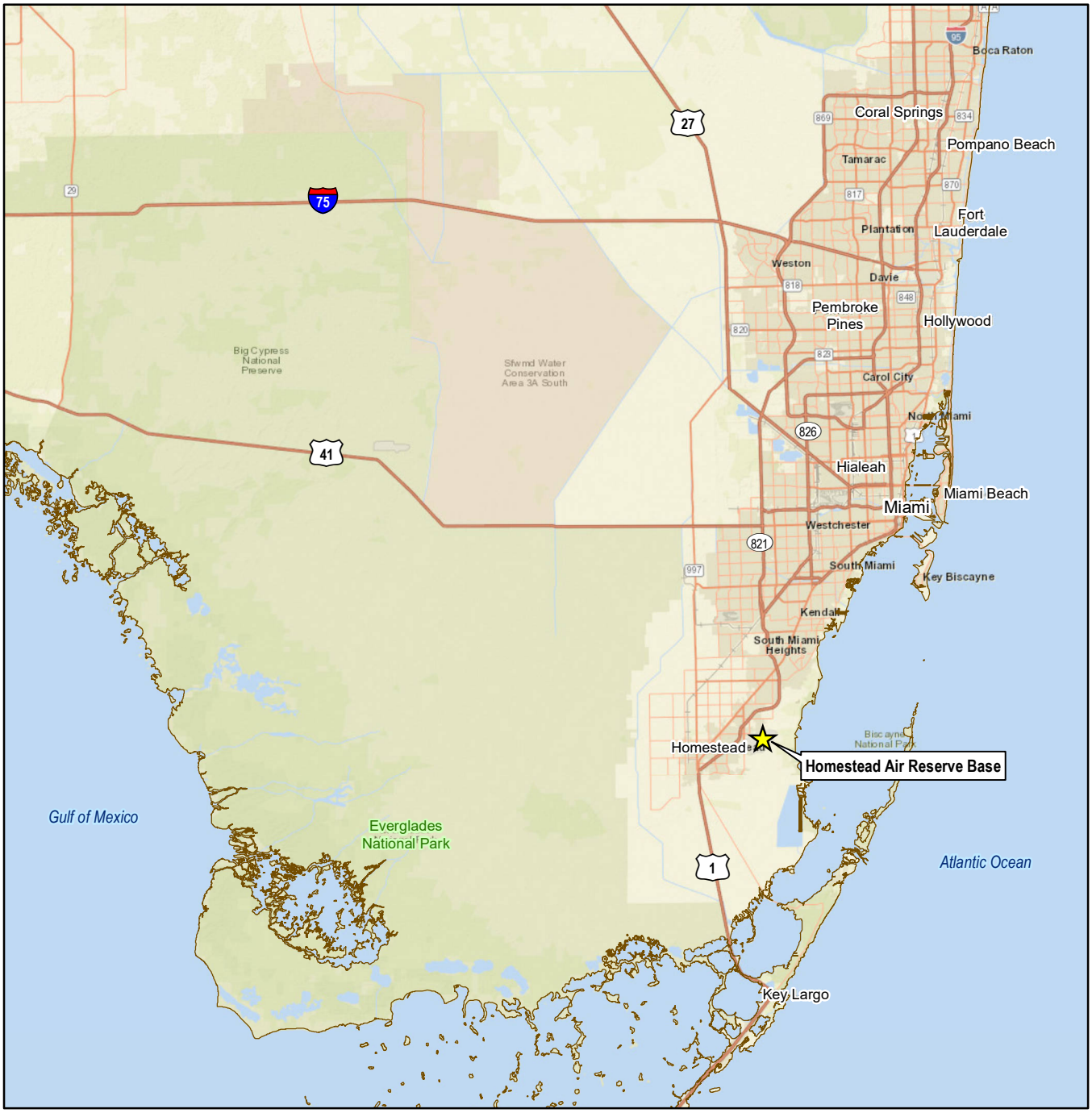
This letter is a formal request for consultation and input with the Miccosukee Tribe of Indians of Florida, which may have concerns about the project area. According to the ICRMP, no archaeological or historical sites are located on the proposed 1.5-acre parcel. While archaeological sites are not likely to occur on the subject property, we encourage you to respond with any concerns you may have relating to cultural sites or materials of significance to the Miccosukee Tribe of Indians of Florida.

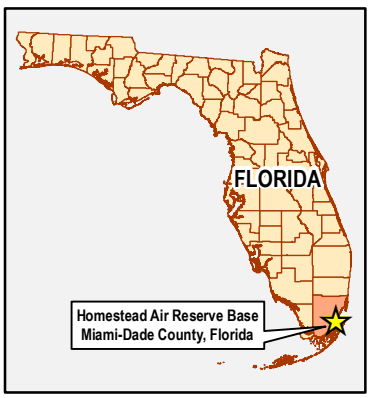
We greatly appreciate your assistance in this matter and request a timely response so that we may address your concerns early in the analysis process. If you have any questions, comments, or concerns about this project, please contact:

Josh Friers
482 MSG/CEV
29350 Westover Street, Bldg 232
Homestead ARB, FL 33039
joshua.friers.1@us.af.mil.

LAWRENCE VENTURA, JR.
Chief, Environmental Flight

Encls.
Figures





Legend

★ Homestead Air Reserve Base

Source:
1) Esri World Street Map

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Figure 1-1
Vicinity Map
Proposed Corrosion Facility/Wash Rack
Homestead Air Reserve Base
Homestead, Florida

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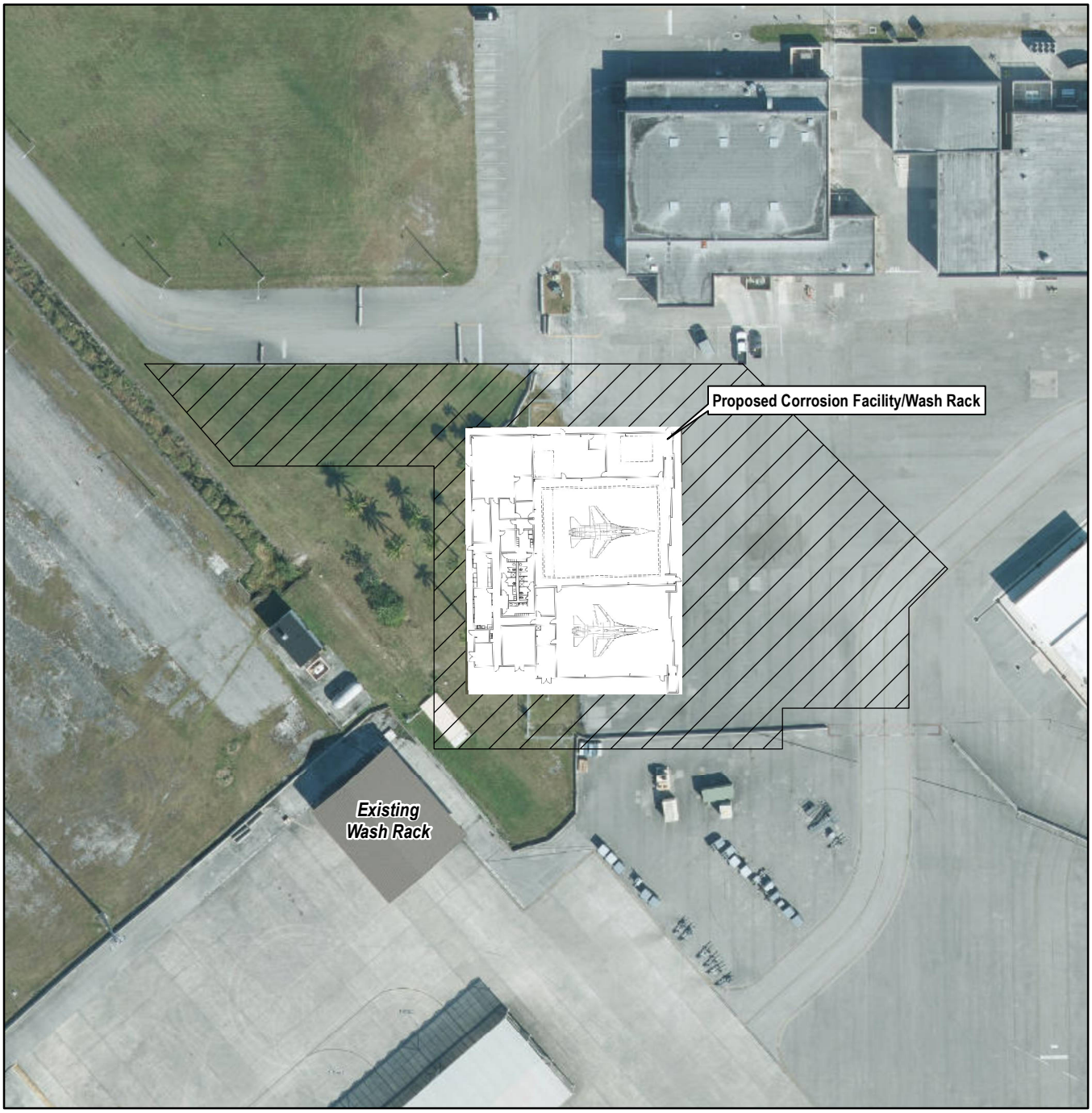

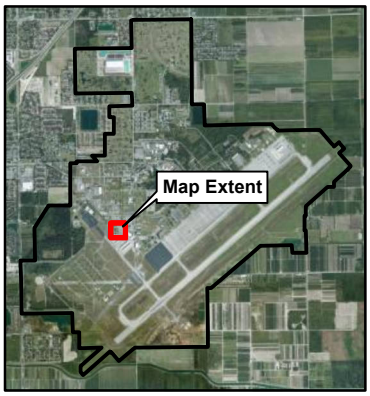

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Proposed Corrosion Facility/
Wash Rack Limits of Disturbance

Source:
1) Esri World Imagery

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Figure 2-1
Project Area Map
Proposed Corrosion Facility/Wash Rack
Homestead Air Reserve Base Homestead, Florida

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Response Letters

FLORIDA DEPARTMENT of STATE

RON DESANTIS
Governor

LAUREL M. LEE
Secretary of State

Mr. Lawrence Ventura, Jr.
Chief, Environmental Flight
482 MSG/CEV
29350 Westover Street, BLDG 232
Homestead Air Reserve Base, Florida 33039

April 20, 2020

RE: DHR Project File No.: 2020-1967
Proposed Environmental Assessment for the Construction of a Corrosion Facility/Wash Rack
Homestead Air Reserve Base, Miami-Dade County

Mr. Ventura:

The Florida State Historic Preservation Officer reviewed the referenced project for possible effects on historic properties listed, or eligible for listing, on the National Register of Historic Places. The review was conducted in accordance with Section 106 of the National Historic Preservation Act of 1966, as amended, and its implementing regulations in 36 CFR Part 800: Protection of Historic Properties.

Based on the information provided and a review of our records, this office concurs with your finding that the proposed undertaking will have no effect on historic properties.

If you have any questions, please contact Scott Edwards, Historic Preservationist, by electronic mail scott.edwards@dos.myflorida.com, or at 850.245.6333 or 800.847.7278.

Sincerely,

Jason Aldridge
For

Timothy A. Parsons, Ph.D.
Director, Division of Historical Resources
and State Historic Preservation Officer

From: Powell, Brian
To: FRIERS, JOSHUA W CIV USAF AFRC 482 FW/SE
Cc: Blackford, Ashleigh; Jorgensen, Betsy
Subject: [EXTERNAL] EA for Corrosion Facility/Wash Rack at HARB
Date: Monday, April 27, 2020 3:57:19 PM

Mr Friers,

The Service has received and reviewed HARB's request for the Service's input regarding any issues of concern relevant for consideration in the NEPA analysis for the wash rack project. At this time the Service does not have any issues or concerns related to the EA NEPA analysis. The Service does wish to suggest that HARB consider developing protective measures to be incorporated into the project design that would provide assurances that the population of Small's milk pea adjacent to the project site will not be impacted.

Additionally, the Service understands that the current request from HARB is not a request for consultation and would like that opportunity to review and comment on the EA when it is completed. Upon review of the EA, the Service recommends that a joint decision be made with regards to the need for any consultation that may be required as a result of the wash rack project.

The Service appreciates HARB's request for comments and looks forward to working with you as this project proceeds.

Brian Powell
Fish and Wildlife Biologist
U.S. Fish and Wildlife Service
South Florida Ecological Service Office
1339 20th Street
Vero Beach, Fl 32960
772-469-4315 - office
772-562-4288 fax

USFWS Section 7 Coordination Letter

DEPARTMENT OF THE AIR FORCE
AIR FORCE RESERVE COMMAND

14 May 2020

Mr. Brian Powell
U.S. Fish and Wildlife Service, Vero Beach Field Office
1339 20th Street
Vero Beach, Florida 32960-3559
772-562-3909

Subject: Section 7 Coordination for the Construction of a Corrosion Facility/Wash Rack for Homestead Air Reserve Base, Homestead, Florida

Dear Mr. Powell:

The U.S. Air Force Reserve Command (AFRC) and Homestead Air Reserve Base (ARB) have prepared an Environmental Assessment (EA) in accordance with the National Environmental Policy Act (NEPA) of 1969. The EA analyzes the potential impacts and environmental consequences associated with the construction and operation of a two-bay hangar facility for aircraft corrosion mitigation/maintenance and wash rack functions. A copy of the complete EA will be provided for your review and comment once it is available.

The area of disturbance, also referred to as the project area, is shown on the attached Figure (Attachment 1). The proposed project area is adjacent to the maintenance apron on the vacant land immediately north of, and adjacent to, Building 4709 (Wash Rack) and south of the existing perimeter security gate. The site design will be developed to avoid existing monitoring wells, an oil/water separator, and a drainage canal. In addition, the site design will avoid or minimize, to the extent possible, encroachment into a known population of the federally endangered Small's milkpea (*Galactia smallii*).

Based on the natural resources survey (Attachment 2) conducted for this project, Small's milk pea occurs in the western portion of the 1.5-acre parcel. Plants were growing in a mowed area consisting of a mix of lawn grasses (*Zoysia*, St. Augustine), weeds, and remnant pine rockland plants. The attached Natural Resources Survey Report shows the location of the plants in relation to the construction boundaries. While the design has not been completed, it will avoid encroachment into the areas of Small's milkpea to the extent possible. There may be unavoidable encroachment into Small's milkpea populations, but it will be the minimum possible. The remaining Small's milkpea plants in the project area will be visibly marked and fenced to prevent inadvertent entry by equipment during construction. Once operational, landscape maintenance will be timed to follow seed set by Small's milkpea and avoid periods of active growth. While some loss of Small's milkpea may be unavoidable, the Proposed Action would not jeopardize the continued existence of Small's milkpea.

The federally endangered Florida bonneted bat (*Eumops floridanus*) is known to occur in the area; however, the U.S. Fish and Wildlife Service determined there are no potential roost areas in the proposed project site during a 2018 site visit (Friers, pers. comm., 2020). Therefore, the Proposed Action would have no effect on the Florida bonneted bat.

There is no designated critical habitat within the project area. There is no potential for adverse modification or destruction of critical habitat.

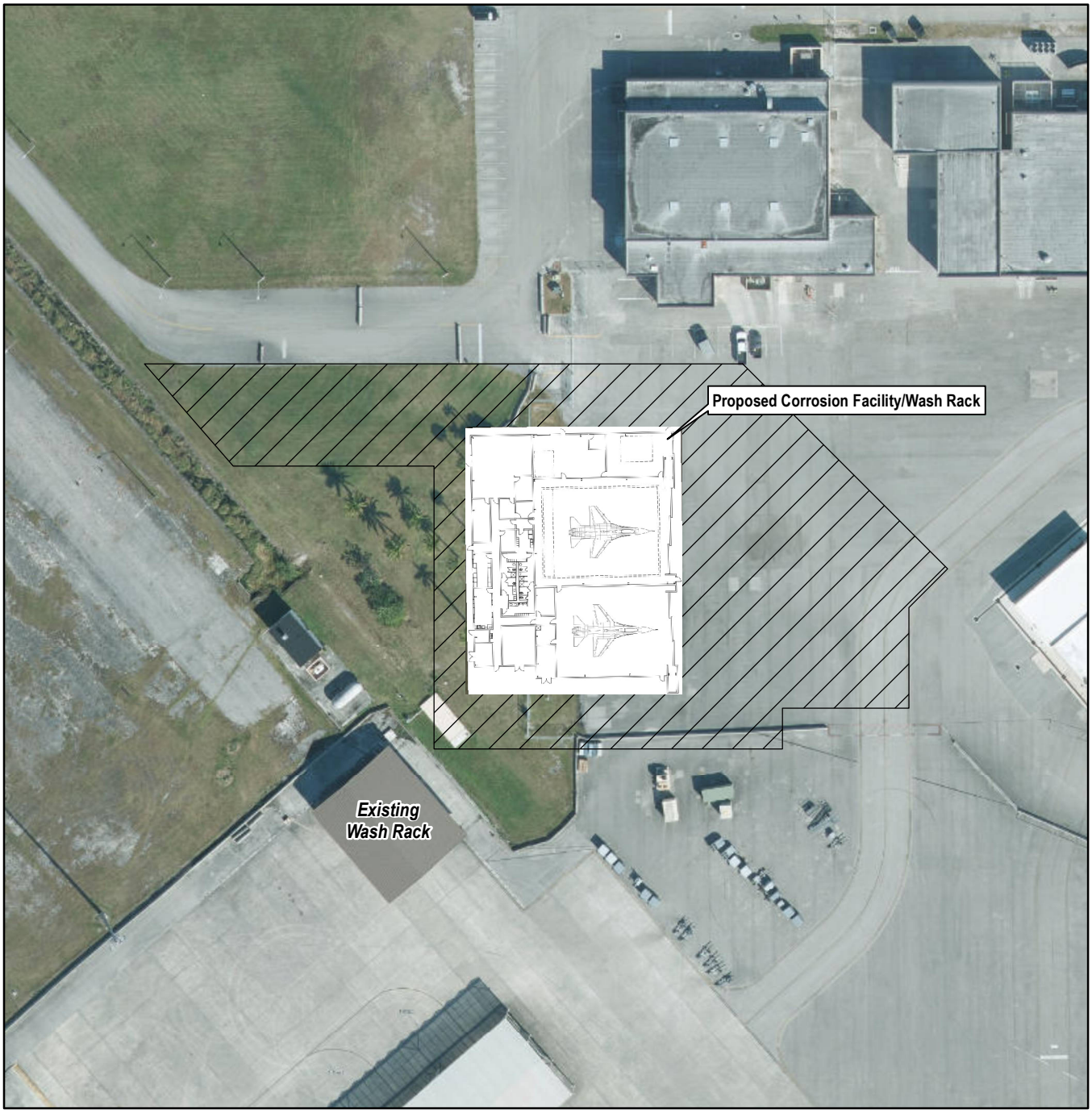
The AFRC respectfully requests concurrence with our determination within 30 days from receipt of this letter. Please direct all correspondence to: 482 MSG/CEV, Attention: Josh Friers, 29350 Westover Street, Building 232, Homestead ARB, FL 33039, or by email at: joshua.friers.2@us.af.mil. If you have any questions, please contact Mr. Friers at 786-415-7344. Thank you for your assistance.

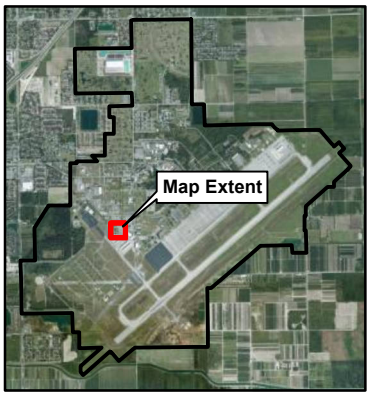
LAWRENCE VENTURA, JR.
Chief, Environmental Flight

Reference

Friers, Joshua, USAF AFRC 482 MSG/CEV. 2020. Personal communication (email) with Betsy Jorgensen, Jacobs Engineering Group. 15 January.

Attachments:
1. Figure – Project Area Map
2. Natural Resources Survey Report





Legend

Proposed Corrosion Facility/Wash Rack
Approximate Limits of Disturbance

Source:
1) Esri World Imagery

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Figure
Project Area Map
Proposed Corrosion Facility/Wash Rack
Homestead Air Reserve Base Homestead, Florida

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Natural Resources Survey

For Sand Flax and Small's Milkpea
on the new Corrosion Facility and Wash Rack Construction Site
Homestead Air Reserve Base

November 23, 2019

George D. Gann

Submitted by:
George D. Gann, Executive Director
The Institute for Regional Conservation
100 East Linton Boulevard, Suite 302B
Delray Beach, FL 33483

Submitted to:
Brent Hefty | Air Force Reserve Command
and

Betsy Jorgensen | Jacobs

Introduction

On October 29, 2019, The Institute for Regional Conservation conducted a survey for two federally endangered plants, sand flax (*Linum arenicola*) and Small's milkpea (*Galactia smallii*), located within a designated potential construction site previously identified by Homestead Air Reserve Base (ARB) (Fig. 1). Both species were known to be present in the vicinity of the construction site. The survey was conducted by Executive Director and senior botanist George Gann, as assisted by Crew Leader Alex Seasholtz. Also present for the survey were Betsy Jorgensen and Richard Reaves from Jacobs (formerly CH2M HILL, Inc, now a wholly owned subsidiary of Jacobs), and Josh Friers from Homestead ARB.

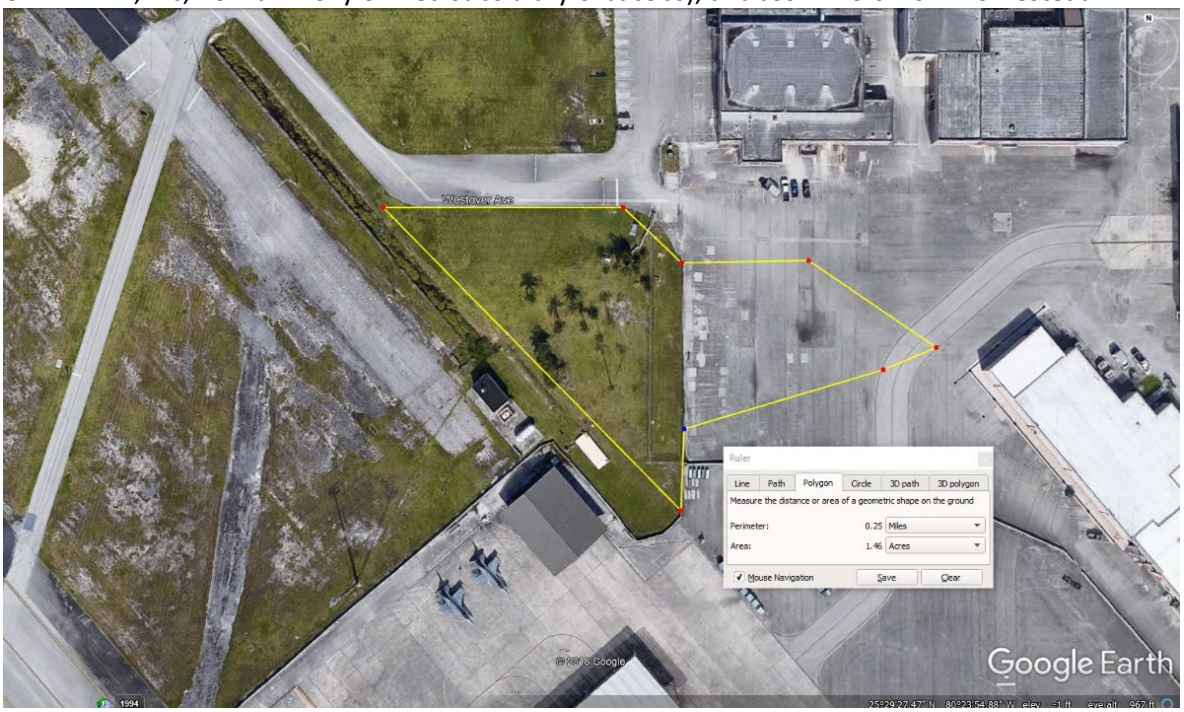


Figure 1. Survey area at Homestead Air Reserve Base.

Methods. Surveys were conducted within all potential habitat within the construction footprint, which included all non-asphalt areas. North-south transects were walked at 5 meter (m) intervals until target plants were encountered. When plants were encountered, they were marked with flagging pins and searches were conducted for neighbors. Once all plants were located with pins, a GPS coordinate was recorded for groups of plants within approximately 1 m distance. After all GPS coordinates were recorded, interior pins were removed, leaving pins along the outside perimeter of the population.

Results. No sand flax was observed, consistent with observations by earlier surveyors (e.g., van der Heiden & Johnson 2013). A total of 137 plants of Small's milkpea were recorded in the same general vicinity as that identified by van der Heiden & Johnson but containing more individuals (137 versus 22 plants). Plants were growing in a mowed area consisting of a mix of lawngrass (Zoysia, St. Augustine), weeds, and remnant pine rockland plants (Fig. 2-4). Forty-one GPS points were recorded in one population, representing between one and 11 plants per point (Fig. 5).

Figure 2. Small's milkpea to the south and west.

Figure 3. Small's milkpea to the southeast.

Figure 4. Small's milkpea to the north.

Figure 5. GPS coordinates of Small's milkpea.

Literature Cited

van der Heiden, C. and **J. Johnson**. 2013. Assessment of the Federally Endangered Small's Milkpea (*Galactia smallii*) and Candidate Sand Flax (*Linum arenicola*) at the Homestead Air Reserve Base, Homestead, Florida. Submitted to the URS Corporation. The Institute for Regional Conservation. Delray Beach, Florida.

Appendix B
Public Notification and Notice of Availability

Notice for Early Public Review of the Preparation of an Environmental Assessment

To: All Interested Agencies, Groups, and Individuals

The U.S. Air Force (USAF) is preparing an environmental assessment (EA) in accordance with the National Environmental Policy Act (NEPA) to analyze the potential environmental impacts of its Proposed Action to construct a corrosion facility/wash rack. The Proposed Action would allow Homestead Air Reserve Base (ARB) to meet the demand for aircraft corrosion mitigation/maintenance and aircraft washing in a facility that is compliant with Unified Facilities Criteria 4-211-02, Aircraft Corrosion Control and Paint Facilities. Implementation of the Proposed Action would support the USAF's continuing responsibility for the safety and efficiency of the mission while practicing sound stewardship of resources and complying with environmental policies and regulations.

The Proposed Action would include the construction of this facility adjacent to protected plant species. Any proposed construction that could affect protected species would be reviewed and, if impacts would occur, the USAF would implement the appropriate permits and mitigation measures per the Homestead ARB Integrated Natural Resource Management Plan. Homestead ARB will coordinate with the U.S. Fish and Wildlife Service during the preparation of the EA.

The Proposed Action is not anticipated to impact wetlands or floodplains. If it is determined that the Proposed Action could affect wetlands or floodplains, the design would be reviewed to minimize or avoid impacts to those resources. If impacts would occur, the USAF would implement the appropriate permits and mitigation measures. This notice is required by Section 2(b) of Executive Order (EO) 11990, "Protection of Wetlands," and by Section 2(a)(4) of EO 11988, "Floodplain Management," and has been prepared and made available to the public by the USAF in accordance with *Code of Federal Regulations*, Title 32, Part 989.24(c) and Air Force Instruction 32-7064, *Integrated Natural Resources Management*, for actions proposed in wetlands and floodplains.

The USAF is seeking public comment on the proposed project in the early stage of the NEPA process to identify any concerns regarding the project's potential impacts. The full draft EA will be available for public review in the spring of 2020. Please provide written comments to: Homestead ARB, Attention: Josh Friers, 482 MSF/CEV, 29350 Westover Street, Bldg 232, Homestead ARB, FL 33039; or by email at: joshua.friers.2@us.af.mil. Written comments will be accepted for 30 days from the publication of this notice.

NOTICE OF 30-DAY PERIOD FOR PUBLIC COMMENT

The U.S. Air Force (USAF) has prepared an environmental assessment (EA) to analyze impacts that could result from constructing and operating a new corrosion facility/wash rack at Homestead Air Reserve Base (ARB) in Homestead, Florida.

The draft final EA and draft final Finding of No Significant Impact (FONSI) are available for 30 days of public review and comment on the internet at https://www.homestead.afrc.af.mil/About-Us/SusOps/.

USAF is aware of the potential impact of the ongoing coronavirus (COVID-19) pandemic on the usual methods of access to information and ability to communicate, such as the mass closure of local public libraries and challenges with the sufficiency of an increasingly overburdened internet. USAF seeks to implement appropriate additional measures to ensure that the public and all interested stakeholders have the opportunity to participate fully in this EA process. Accordingly, please do not hesitate to contact us directly at the email address or telephone number provided above; we are available to discuss and help resolve issues involving access to the EA and FONSI, or the ability to comment.

Written comments will be considered for 30 days after the publication of this notice. Comments should be directed to: Homestead ARB, Attention: Josh Friers, 482 MSF/CEV, 29350 Westover Street, Bldg 232, Homestead ARB, FL 33039; by phone at: 786-415-7344 or by email at: joshua.friers.2@us.af.mil.

Appendix C
FDEP Coastal Zone Act Consistency Determination

APPENDIX C

Federal Agency Coastal Zone Management Act Consistency Determination

Introduction

This document provides the State of Florida with the Consistency Determination under Section 307 of the Coastal Zone Management Act (16 *United States Code* § 1456, as amended) and 15 *Code of Federal Regulations* (CFR) Part 930 subpart C developed by Homestead Air Reserve Base (ARB). The information in this Consistency Determination is provided pursuant to 15 CFR § 930.39. This federal consistency determination addresses the Proposed Action in the Environmental Assessment: *Construction of a Corrosion Facility/Wash Rack for Homestead ARB, Miami-Dade County, Florida* for the construction and operation of a corrosion facility/wash rack two-bay hangar facility for aircraft corrosion mitigation/maintenance and wash rack functions.

Proposed Action

The Proposed Action is to establish a corrosion facility/wash rack that is compliant with Unified Facilities Criteria 4-211-02, *Aircraft Corrosion Control and Paint Facilities* (1 December 2012). The project includes the construction and operation of a corrosion facility/wash rack two-bay hangar facility for aircraft corrosion mitigation and maintenance and wash rack functions. Figure 1 shows the location of the Proposed Action. The facility would include a reinforced concrete foundation, concrete slab, structural steel frame, roofing, lightning protection system, exterior, electrical work, site improvements, utilities, fire detection/protection, wash water retention, worker fall protection, bridge cranes, and all necessary supporting facilities and controls for a complete and usable facility. The proposed facility would have individual work surfaces, restrooms, lockers, transfer and changing areas, showers, break area, offices, computer training area, and two corrosion (maintenance)/wash bays.

The proposed facility would include support areas such as a bead blast room and a paint shop room, with a paint booth for painting smaller pieces. These spaces are considered the “dirty” shops, and these functions, along with the corrosion control hangar bay, must be segregated from the rest of the building. This separation would be achieved by providing a personal protective equipment cleaning room that would lead to the “dirty” toilet/shower areas for men and women and then transition to the “clean” toilet areas, and then to the other “clean” areas of the building.

An access road, a minimum of 5.4 meters wide (17.7 feet), would be constructed behind and on both sides of the proposed hangar to accommodate fire and emergency traffic. There would be an asphalt area behind the hangar to accommodate the access road, the Hopper, various dumpsters, and storage and delivery areas.

A new manhole wastewater sewer line would be constructed to accommodate the discharge of the maintenance facility’s sewage. Greywater would discharge through an existing oil/water separator (OWS) for discharge into the existing wastewater sewer line. A lift station may be needed for greywater and a sewage grinder pump may be needed to transmit wastewater. An existing potable water main onsite would be relocated and adapted to the proposed site. An existing drainage canal adjacent to the site would be used for stormwater discharge and conveyance. The existing electrical underground line would be relocated to accommodate the facility.

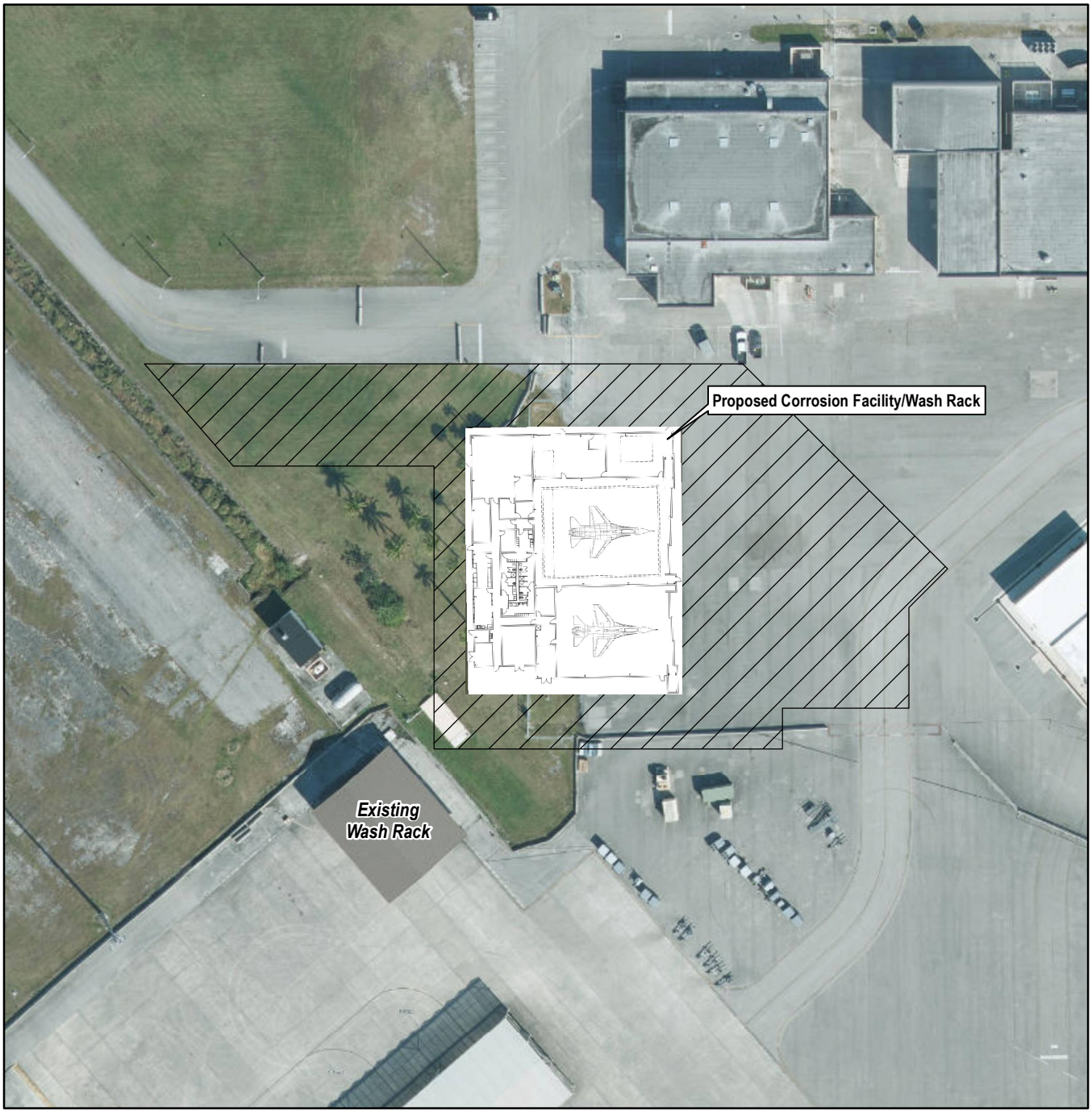
While sidewalks, parking lots, and a new access gate could be constructed in the future, they are not included under this Proposed Action and would require a separate site-specific environmental review prior to construction, which would include a Consistency Determination.

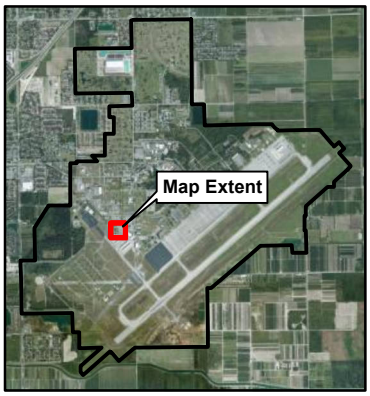
The proposed project area is adjacent to the maintenance apron on the vacant land immediately north of, and adjacent to, Building 4709 (Wash Rack) and south of the existing perimeter security gate. The site design was developed to avoid existing monitoring wells, an OWS, and a drainage canal. In addition, the site design avoids or minimizes encroachment into a known population of the federally endangered Small's milkpea (*Galactia smallii*). Small's milkpea populations will be visibly marked and fenced to prevent inadvertent entry by equipment. The federally endangered Florida bonneted bat (*Eumops floridanus*) is known to occur in the area. Because the U.S. Fish and Wildlife Service (USFWS) determined there are no potential roost areas in the proposed action area during a 2018 site visit (Friers, pers. comm., 2020[1]), there would be no effects on the species.

Up to 1.5 acres of land, including land already covered by asphalt, would be disturbed for construction of the proposed corrosion facility/wash rack. Of that 1.5 acres, 0.6-acre of urban land (currently mowed grass and scattered palm trees and shrubs) would be converted to impervious surfaces.

The Consistency Determination is based on the assumption that the corrosion facility/wash rack would be constructed.

[1] Friers, Joshua, USAF AFRC 482 MSG/CEV. 2020. Personal communication (email) with Betsy Jorgensen, Jacobs. 15 January.





Legend

Proposed Corrosion Facility/Wash Rack
Approximate Limits of Disturbance

Source:
1) Esri World Imagery

N

0 100 200
Feet

Figure 1
Project Area Map
Proposed Corrosion Facility/Wash Rack
Homestead Air Reserve Base Homestead, Florida

\\galt\proj\Homestead_ARB\D3286700\MapFiles\DOPAA\Figure_2_191126.mxd

Federal Consistency Review

The Proposed Action is consistent to the extent practicable with the enforceable provisions of the Florida Coastal Zone Management Program. Statutes addressed as part of the Florida Coastal Zone Management Program consistency review and considered in the analysis of the proposed action are discussed in the following table.

Table 1. Florida Coastal Management Program Consistency Review

Statue	Consistency	Scope
Chapter 161 *Beach and Shore Preservation*	The proposed project would not adversely affect beach and shore management, specifically as it pertains to: • The Coastal Construction Permit Program • The Coastal Construction Control Line (CCCL) Permit Program • The Coastal Zone Protection Program All activities would occur inland on federal property.	Authorizes the Bureau of Beaches and Coastal Systems within Florida Department of Environmental Protection to regulate construction on or seaward of the states' beaches.
Chapter 163, Part II *Growth Policy; County and Municipal Planning; Land Development Regulation*	The Proposed Action would not have a negative effect on county and municipal planning. The project is on federal land not subject to Miami-Dade County planning and land regulation. Homestead ARB would adhere to applicable policies.	Requires local governments to prepare, adopt, and implement comprehensive plans that encourage the most appropriate use of land and natural resources in a manner consistent with the public interest.
Chapter 186 *State and Regional Planning*	The Proposed Action would not have a negative effect on state plans for water use, land development, or transportation.	Details state-level planning requirements. Requires the development of special statewide plans governing water use, land development, and transportation.
Chapter 252 *Emergency Management*	The Proposed Action would not increase the state's vulnerability to natural disasters. Emergency response and evacuation procedures would not be impacted by the Proposed Action.	Provides for planning and implementation of the state's response to, efforts to recover from, and the mitigation of natural and manmade disasters.
Chapter 253 *State Lands*	All activities would occur on restricted federal property; therefore, there would be no impact to state or public lands.	Addresses the state's administration of public lands and property of this state and provides direction regarding the acquisition, disposal, and management of all state lands.
Chapter 258 *State Parks and Preserves*	State parks, recreational areas, and aquatic preserves would not be affected by the Proposed Action.	Addresses administration and management of state parks and preserves (Chapter 258).
Chapter 259 *Land Acquisition for Conservation or Recreation*	Activities would be on federal land not subject to state acquisition at this time. Tourism and outdoor recreation would not be affected by the Proposed Action.	Authorizes acquisition of environmentally endangered lands and outdoor recreation lands (Chapter 259).
Chapter 260 *Recreational Trails System*	Opportunities for recreation on state lands would not be affected by the Proposed Action.	Authorizes acquisition of land to create a recreational trails system and to facilitate management of the system (Chapter 260).

Table 1. Florida Coastal Management Program Consistency Review

Statue	Consistency	Scope
Chapter 375 *Multipurpose Outdoor Recreation; Land Acquisition, Management, and Conservation*	Opportunities for recreation on state lands would not be affected by the Proposed Action.	Develops comprehensive multipurpose outdoor recreation plan to document recreational supply and demand, describes current recreational opportunities, estimates need for additional recreational opportunities, and proposes means to meet the identified needs (Chapter 375).
Chapter 267 *Historical Resources*	A 1986 report, concurred by the State Historical Preservation Office (SHPO), concluded there is virtually no possibility of discovering significant archeological sites in the area. There are no structures in the proposed project area. Therefore, archaeological or historical sites are not likely to occur within the proposed project area. There would be no impacts to cultural resources under the Proposed Action.	Addresses management and preservation of the state's archaeological and historical resources.
Chapter 288 *Commercial Development and Capital Improvements*	Military base closures or base reuse plans would not be affected by the Proposed Action.	Provides the framework for promoting and developing the general business, trade, and tourism components of the state economy.
Chapter 334 *Transportation Administration*	The Proposed Action would not have an impact on transportation other than a short-term increase in traffic volume.	Addresses the state's policy concerning transportation administration (Chapter 334).
Chapter 339 *Transportation Finance and Planning*	The Proposed Action would have no effect on the finance and planning needs of the state's transportation system.	Addresses the finance and planning needs of the state's transportation system (Chapter 339).
Chapter 370 *Saltwater Fisheries*	The Proposed Action would not have an impact on saltwater fisheries.	Addresses management and protection of the state's saltwater fisheries.
Chapter 372 *Wildlife*	The proposed project area does not provide suitable habitat for wildlife and is an isolated area of maintained lawn and parking apron within the larger industrial/urban area. Wildlife use would be limited and no use by species protected by the State of Florida would occur. The Proposed Action would not have a negative impact on wildlife resources.	Addresses the management of the wildlife resources of the state.

Table 1. Florida Coastal Management Program Consistency Review

Statue	Consistency	Scope
Chapter 373 *Water Resources*	Minimal impacts to water resources would occur. The existing drainage canal would be used for stormwater discharge and conveyance. To reduce the potential for impact to water resources, construction best management practices (BMPs) will be used to control erosion and stormwater runoff. Applicable permitting requirements will be satisfied in accordance with 62-25 Florida Administrative Code (FAC). A stormwater permit from South Florida Water Management District would be filed prior to project initiation. The proposed facility would replace an inadequate existing facility and would not have impacts to water resources from operation.	Addresses the state's policy concerning water resources.
Chapter 376 *Pollutant Discharge Prevention and Removal*	Industrial activities would be relocated from the existing inadequate wash rack to the new facility and appropriate procedures would continue to be followed in the new facility. Homestead ARB uses a network of OWSs, which are control devices used to remove oil, grease, fuel, and other floatable materials from stormwater.	Regulates transfer, storage, and transportation of pollutants, and cleanup of pollutant discharges.
Chapter 377 *Energy Resources*	Energy resource production, including oil and gas, and the transportation of oil and gas, would not be affected by the Proposed Action.	Addresses regulation, planning, and development of oil and gas resources of the state.
Chapter 380 *Land and Water Management*	Under the Proposed Action, development of state lands with regional (i.e., more than one county) impacts would not occur. No changes to coastal infrastructure such as capacity increases of existing coastal infrastructure, or use of state funds for infrastructure planning, designing, or construction would occur.	Establishes land and water management policies to guide and coordinate local decisions relating to growth and development.
Chapter 381 *Public Health, General Provisions*	A new manhole wastewater sewer line would be constructed to accommodate the discharge of the facility's sewage. Greywater would discharge through the existing OWS for discharge into the existing wastewater sewer line. The South District Wastewater Treatment Plant has sufficient capacity to treat the discharge. Hazardous waste stream generated by the proposed corrosion facility/wash rack would continue to be handled according to the Hazardous Waste Management Plan. These are existing activities at Homestead ARB that are being relocated to a new, more compliant facility.	Establishes public policy concerning the state's public health system.

Table 1. Florida Coastal Management Program Consistency Review

Statue	Consistency	Scope
Chapter 388 *Mosquito Control*	The Proposed Action would not affect mosquito control efforts.	Addresses mosquito control effort in the state.
Chapter 403 *Environmental Control*	The Proposed Action would have no impact on groundwater, water quality, air quality, pollution control, solid waste management, or other environmental control efforts.	Establishes public policy concerning environmental control in the state.
Chapter 582 *Soil and Water Conservation*	The Proposed Action would include construction activities and soil disturbance. Appropriate BMPs would be applied to prevent soil erosion and water quality degradation.	Establishes policies that require the conservation, development, and use of soil and water resources to preserve natural resources and control and prevent soil erosion.

Appendix D
Natural Resources Survey Reports

The Institute for Regional Conservation
Natural Resources Survey Report

Natural Resources Survey

For Sand Flax and Small's Milkpea
on the new Corrosion Facility and Wash Rack Construction Site
Homestead Air Reserve Base

November 23, 2019

George D. Gann

Submitted by:
George D. Gann, Executive Director
The Institute for Regional Conservation
100 East Linton Boulevard, Suite 302B
Delray Beach, FL 33483

Submitted to:
Brent Hefty | Air Force Reserve Command
and

Betsy Jorgensen | Jacobs

Introduction

On October 29, 2019, The Institute for Regional Conservation conducted a survey for two federally endangered plants, sand flax (*Linum arenicola*) and Small's milkpea (*Galactia smallii*), located within a designated potential construction site previously identified by Homestead Air Reserve Base (ARB) (Fig. 1). Both species were known to be present in the vicinity of the construction site. The survey was conducted by Executive Director and senior botanist George Gann, as assisted by Crew Leader Alex Seasholtz. Also present for the survey were Betsy Jorgensen and Richard Reaves from Jacobs (formerly CH2M HILL, Inc, now a wholly owned subsidiary of Jacobs), and Josh Friers from Homestead ARB.

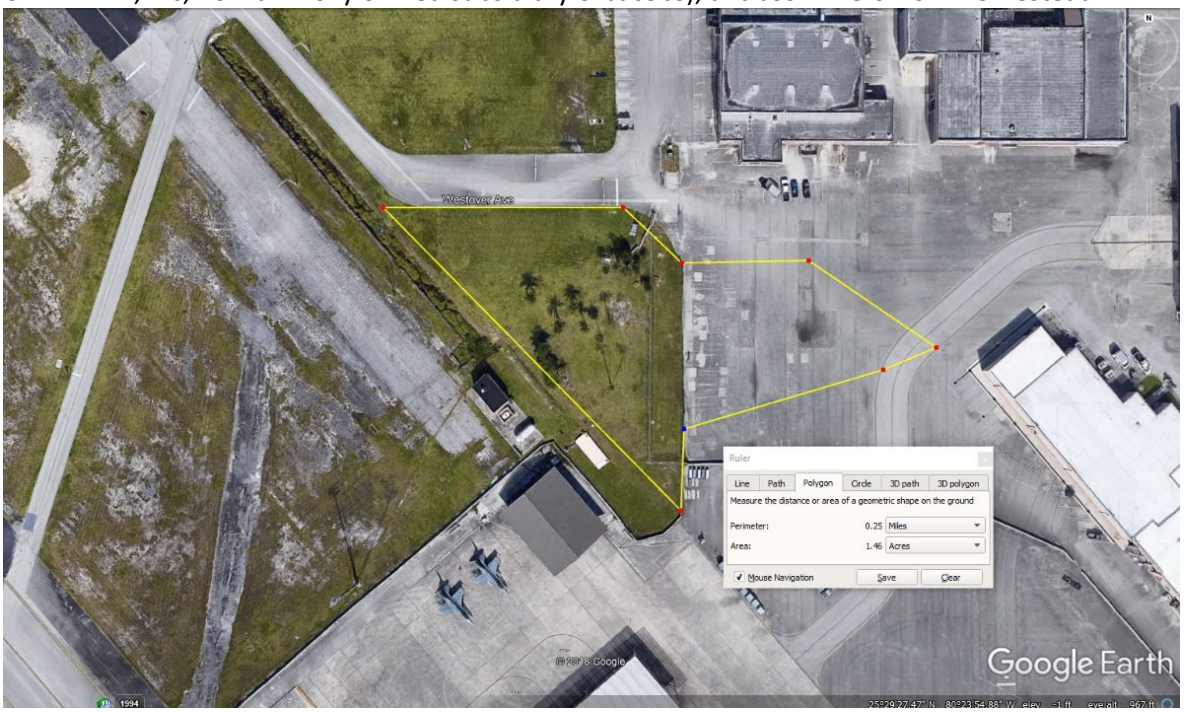


Figure 1. Survey area at Homestead Air Reserve Base.

Methods. Surveys were conducted within all potential habitat within the construction footprint, which included all non-asphalt areas. North-south transects were walked at 5 meter (m) intervals until target plants were encountered. When plants were encountered, they were marked with flagging pins and searches were conducted for neighbors. Once all plants were located with pins, a GPS coordinate was recorded for groups of plants within approximately 1 m distance. After all GPS coordinates were recorded, interior pins were removed, leaving pins along the outside perimeter of the population.

Results. No sand flax was observed, consistent with observations by earlier surveyors (e.g., van der Heiden & Johnson 2013). A total of 137 plants of Small's milkpea were recorded in the same general vicinity as that identified by van der Heiden & Johnson but containing more individuals (137 versus 22 plants). Plants were growing in a mowed area consisting of a mix of lawngrass (Zoysia, St. Augustine), weeds, and remnant pine rockland plants (Fig. 2-4). Forty-one GPS points were recorded in one population, representing between one and 11 plants per point (Fig. 5).

Figure 2. Small's milkpea to the south and west.

Figure 3. Small's milkpea to the southeast.

Figure 4. Small's milkpea to the north.

Figure 5. GPS coordinates of Small's milkpea.

Literature Cited

van der Heiden, C. and **J. Johnson**. 2013. Assessment of the Federally Endangered Small's Milkpea (*Galactia smallii*) and Candidate Sand Flax (*Linum arenicola*) at the Homestead Air Reserve Base, Homestead, Florida. Submitted to the URS Corporation. The Institute for Regional Conservation. Delray Beach, Florida.

USFWS IPaC Resource List

IPaC **U.S. Fish & Wildlife Service**

IPaC resource list

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

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

Location

Miami-Dade County, Florida

Local office

South Florida Ecological Services Field Office

(772) 562-3909
(772) 562-4288

1339 20th Street
Vero Beach, FL 32960-3559

http://fws.gov/verobeach

Endangered species

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

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

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

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

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

Listed species[1] and their critical habitats are managed by the Ecological Services Program of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries[2]).

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

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

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

Mammals

NAME	STATUS

Florida Bonneted Bat Eumops floridanus — Endangered
No critical habitat has been designated for this species.
https://ecos.fws.gov/ecp/species/8630

Florida Panther Puma (=Felis) concolor coryi — Endangered
No critical habitat has been designated for this species.
https://ecos.fws.gov/ecp/species/1763

Puma (=mountain Lion) Puma (=Felis) concolor (all subsp. except coryi) — SAT
No critical habitat has been designated for this species.
https://ecos.fws.gov/ecp/species/6049

Birds

NAME	STATUS

Bachman's Warbler (=wood) Vermivora bachmanii — Endangered
No critical habitat has been designated for this species.
https://ecos.fws.gov/ecp/species/3232

Ivory-billed Woodpecker Campephilus principalis — Endangered
No critical habitat has been designated for this species.
https://ecos.fws.gov/ecp/species/8230

Red Knot Calidris canutus rufa — Threatened
No critical habitat has been designated for this species.
https://ecos.fws.gov/ecp/species/1864

Wood Stork Mycteria americana — Threatened
No critical habitat has been designated for this species.
https://ecos.fws.gov/ecp/species/8477

Reptiles

NAME	STATUS

American Alligator Alligator mississippiensis — SAT
No critical habitat has been designated for this species.
https://ecos.fws.gov/ecp/species/776

American Crocodile Crocodylus acutus — Threatened
There is **final** critical habitat for this species. Your location is outside the critical habitat.
https://ecos.fws.gov/ecp/species/6604

Eastern Indigo Snake Drymarchon corais couperi — Threatened
No critical habitat has been designated for this species.
https://ecos.fws.gov/ecp/species/646

Hawksbill Sea Turtle Eretmochelys imbricata — Endangered
There is **final** critical habitat for this species. Your location is outside the critical habitat.
https://ecos.fws.gov/ecp/species/3656

Leatherback Sea Turtle Dermochelys coriacea — Endangered
There is **final** critical habitat for this species. Your location is outside the critical habitat.
https://ecos.fws.gov/ecp/species/1493

Loggerhead Sea Turtle Caretta caretta — Threatened
There is **final** critical habitat for this species. Your location is outside the critical habitat.
https://ecos.fws.gov/ecp/species/1110

Fishes

NAME	STATUS
Atlantic Sturgeon (gulf Subspecies) Acipenser oxyrinchus (=oxyrhynchus) desotoi There is **final** critical habitat for this species. Your location is outside the critical habitat. https://ecos.fws.gov/ecp/species/651	Threatened

Insects

NAME	STATUS
Bartram's Hairstreak Butterfly Strymon acis bartrami There is **final** critical habitat for this species. Your location is outside the critical habitat. https://ecos.fws.gov/ecp/species/4837	Endangered
Florida Leafwing Butterfly Anaea troglodyta floridalis There is **final** critical habitat for this species. Your location is outside the critical habitat. https://ecos.fws.gov/ecp/species/6652	Endangered
Miami Blue Butterfly Cyclargus (=Hemiargus) thomasi bethunebakeri No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/3797	Endangered

Flowering Plants

NAME	STATUS
Beach Jacquemontia Jacquemontia reclinata No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/1277	Endangered
Blodgett's Silverbush Argythamnia blodgettii No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/6823	Threatened
Cape Sable Thoroughwort Chromolaena frustrata There is **final** critical habitat for this species. Your location is outside the critical habitat. https://ecos.fws.gov/ecp/species/4733	Endangered
Carter's Mustard Warea carteri No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/5583	Endangered
Carter's Small-flowered Flax Linum carteri carteri There is **final** critical habitat for this species. Your location is outside the critical habitat. https://ecos.fws.gov/ecp/species/7208	Endangered
Crenulate Lead-plant Amorpha crenulata No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/6470	Endangered
Deltoid Spurge Chamaesyce deltoidea ssp. deltoidea No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/199	Endangered
Everglades Bully Sideroxylon reclinatum ssp. austrofloridense No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/4735	Threatened
Florida Brickell-bush Brickellia mosieri There is **final** critical habitat for this species. Your location is outside the critical habitat. https://ecos.fws.gov/ecp/species/956	Endangered
Florida Pineland Crabgrass Digitaria pauciflora No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/3728	Threatened

Florida Prairie-clover Dalea carthagenensis floridana — Endangered
No critical habitat has been designated for this species.
https://ecos.fws.gov/ecp/species/2300

Florida Semaphore Cactus Consolea corallicola — Endangered
There is **final** critical habitat for this species. Your location is outside the critical habitat.
https://ecos.fws.gov/ecp/species/4356

Garber's Spurge Chamaesyce garberi — Threatened
No critical habitat has been designated for this species.
https://ecos.fws.gov/ecp/species/8229

Pineland Sandmat Chamaesyce deltoidea pinetorum — Threatened
No critical habitat has been designated for this species.
https://ecos.fws.gov/ecp/species/1914

Sand Flax Linum arenicola — Endangered
No critical habitat has been designated for this species.
https://ecos.fws.gov/ecp/species/4313

Small's Milkpea Galactia smallii — Endangered
No critical habitat has been designated for this species.
https://ecos.fws.gov/ecp/species/3360

Tiny Polygala Polygala smallii — Endangered
No critical habitat has been designated for this species.
https://ecos.fws.gov/ecp/species/996

Ferns and Allies

NAME	STATUS
Florida Bristle Fern Trichomanes punctatum ssp. floridanum No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/8739	Endangered

Critical habitats

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

THERE ARE NO CRITICAL HABITATS AT THIS LOCATION.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act[1] and the Bald and Golden Eagle Protection Act[2].

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

1. The Migratory Birds Treaty Act of 1918.
2. The Bald and Golden Eagle Protection Act of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php
- Measures for avoiding and minimizing impacts to birds http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php
- Nationwide conservation measures for birds http://www.fws.gov/migratorybirds/pdf/management/nationwidestandardconservationmeasures.pdf

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

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

NAME	BREEDING SEASON (IF A BREEDING SEASON IS INDICATED FOR A BIRD ON YOUR LIST, THE BIRD MAY BREED IN YOUR PROJECT AREA SOMETIME WITHIN THE TIMEFRAME SPECIFIED, WHICH IS A VERY LIBERAL ESTIMATE OF THE DATES INSIDE WHICH THE BIRD BREEDS ACROSS ITS ENTIRE RANGE.

"BREEDS ELSEWHERE" INDICATES THAT THE BIRD DOES NOT LIKELY BREED IN YOUR PROJECT AREA.)

American Kestrel Falco sparverius paulus — Breeds Apr 1 to Aug 31
This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

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

Black Skimmer Rynchops niger — Breeds May 20 to Sep 15
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/5234

Black-whiskered Vireo Vireo altiloquus — Breeds May 1 to Aug 15
This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

Clapper Rail Rallus crepitans — Breeds Apr 10 to Oct 31
This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

Common Ground-dove Columbina passerina exigua — Breeds Feb 1 to Dec 31
This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

King Rail Rallus elegans — Breeds May 1 to Sep 5
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/8936

Least Tern Sterna antillarum — Breeds Apr 20 to Sep 10
This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

Lesser Yellowlegs Tringa flavipes — Breeds elsewhere
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9679

Limpkin Aramus guarauna — Breeds Jan 15 to Aug 31
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Magnificent Frigatebird Fregata magnificens — Breeds Oct 1 to Apr 30
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Mangrove Cuckoo Coccyzus minor — Breeds Apr 20 to Aug 20
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Prairie Warbler Dendroica discolor — Breeds May 1 to Jul 31
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Reddish Egret Egretta rufescens — Breeds Mar 1 to Sep 15
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/7617

Ruddy Turnstone Arenaria interpres morinella — Breeds elsewhere
This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

Semipalmated Sandpiper Calidris pusilla — Breeds elsewhere
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Short-tailed Hawk Buteo brachyurus — Breeds Mar 1 to Jun 30
This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA
https://ecos.fws.gov/ecp/species/8742

Smooth-billed Ani Crotophaga ani — Breeds Jan 1 to Dec 31
This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA
https://ecos.fws.gov/ecp/species/1754

Swallow-tailed Kite Elanoides forficatus — Breeds Mar 10 to Jun 30
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/8938

White-crowned Pigeon *Patagioenas leucocephala* — Breeds May 1 to Sep 30
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/4047

Willet *Tringa semipalmata* — Breeds Apr 20 to Aug 5
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Wilson's Plover *Charadrius wilsonia* — Breeds Apr 1 to Aug 20
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Yellow Warbler *Dendroica petechia gundlachi* — Breeds May 20 to Aug 10
This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

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

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

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

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

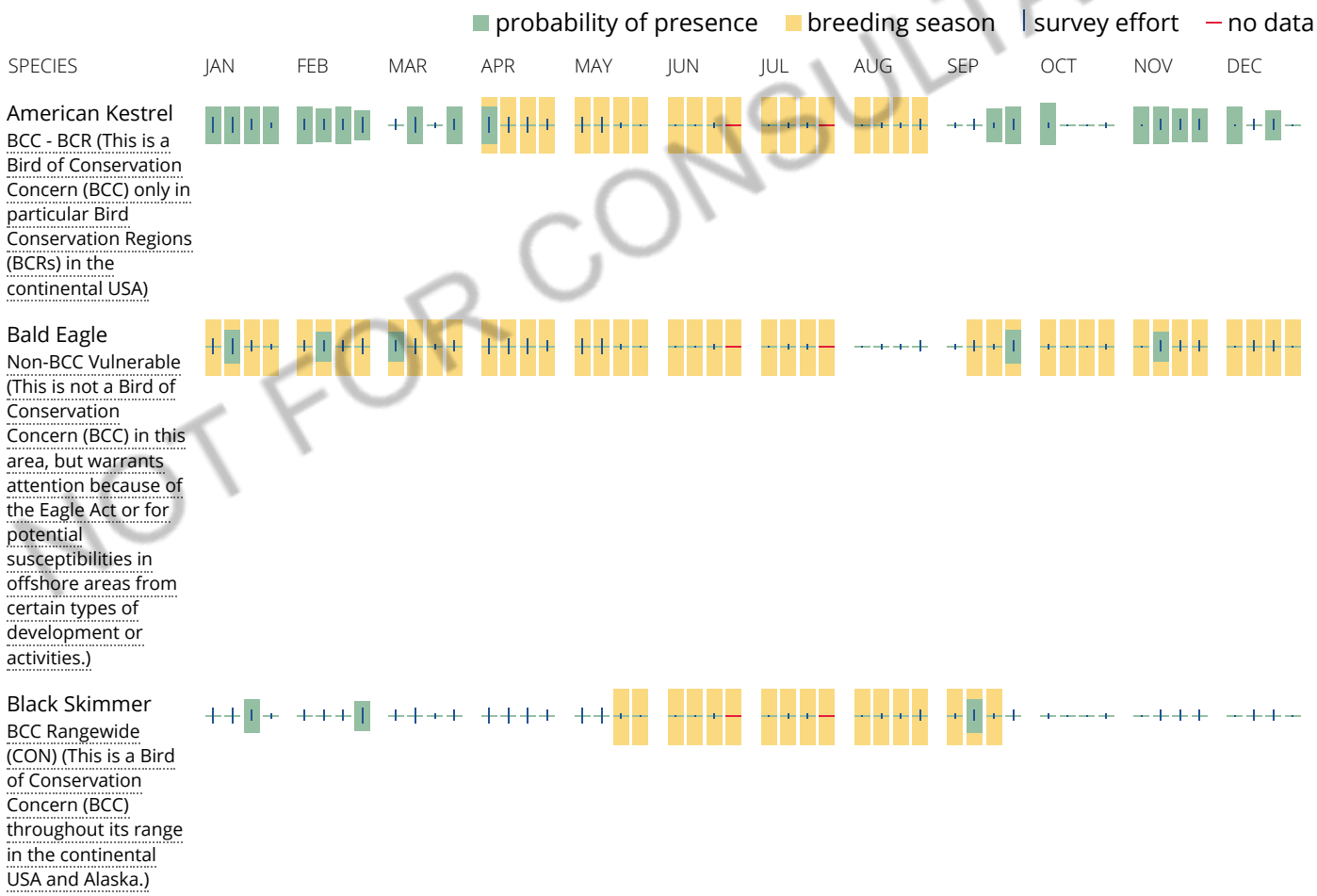
Breeding Season (▪)
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

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

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

No Data (–)
A week is marked as having no data if there were no survey events for that week.

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

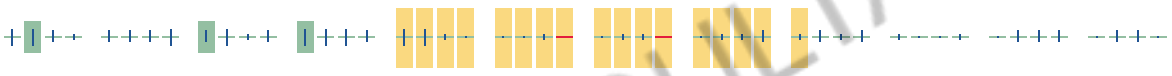


Black-whiskered Vireo
BCC - BCR (This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA)

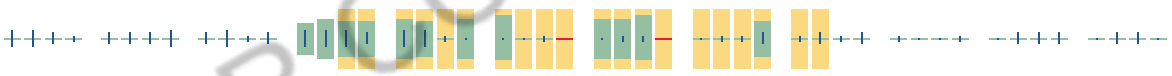
Clapper Rail
BCC - BCR (This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA)

Common Ground-dove
BCC - BCR (This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA)

King Rail
BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)



Least Tern
BCC - BCR (This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA)



Lesser Yellowlegs
BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)

Limpkin
BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)

Magnificent Frigatebird
BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)

Mangrove Cuckoo
BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)

SPECIES JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC

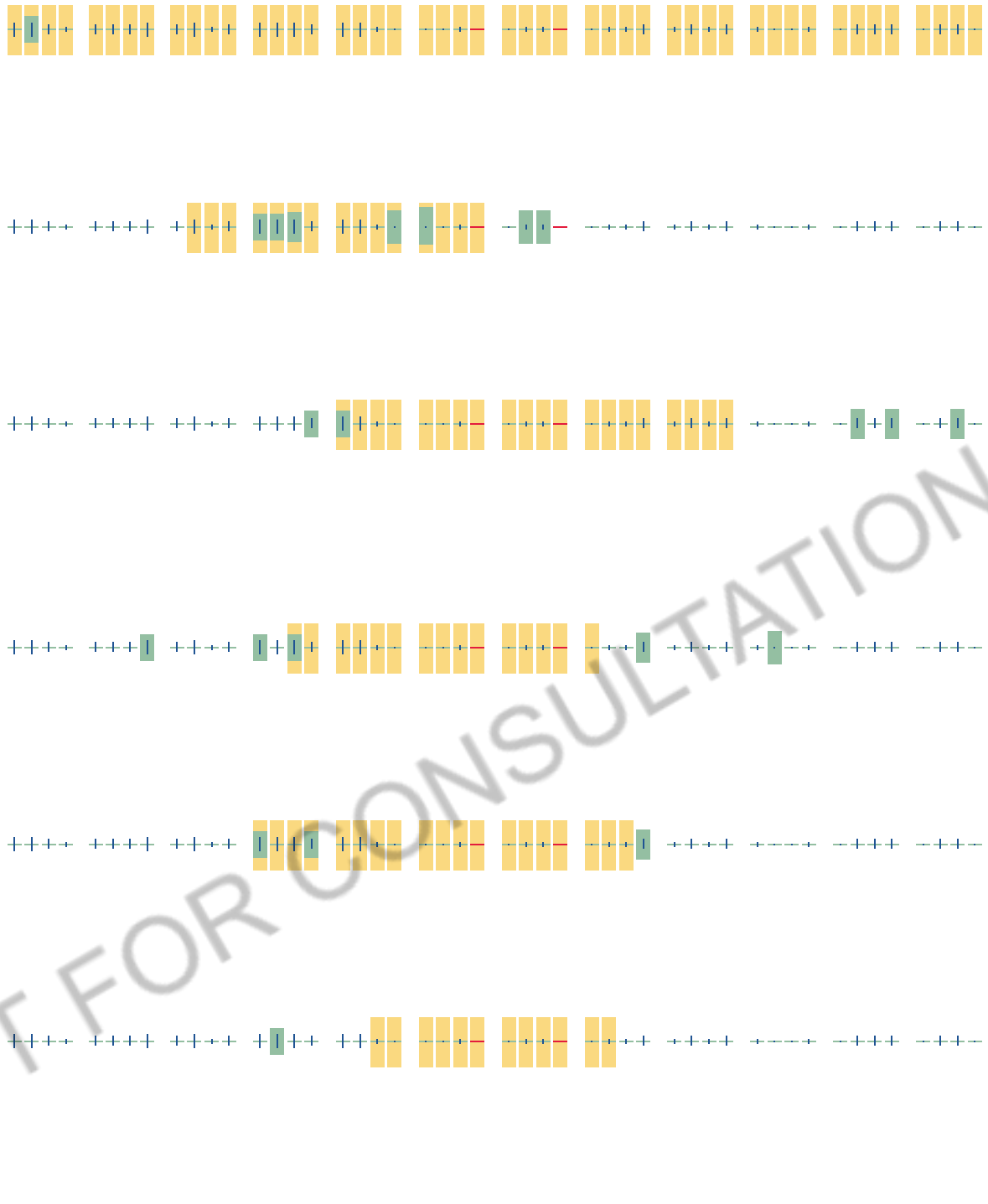
Prairie Warbler
BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)

Reddish Egret
BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)

Ruddy Turnstone
BCC - BCR (This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA)

Semipalmated Sandpiper
BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)

Short-tailed Hawk
BCC - BCR (This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA)



Smooth-billed Ani
BCC - BCR (This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA)

Swallow-tailed Kite
BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)

White-crowned Pigeon
BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)

Willet
BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)

Wilson's Plover
BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)

Yellow Warbler
BCC - BCR (This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA)

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

Nationwide Conservation Measures describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. Additional measures and/or permits may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the migratory birds potentially occurring in my specified location?

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

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

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the AKN Phenology Tool.

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

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

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

How do I know if a bird is breeding, wintering, migrating or present year-round in my project area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may refer to the following resources: The Cornell Lab of Ornithology All About Birds Bird Guide, or (if you are unsuccessful in locating the bird of interest there), the Cornell Lab of Ornithology Neotropical Birds guide. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

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

1. "BCC Rangewide" birds are Birds of Conservation Concern (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the Eagle Act requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

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

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the Northeast Ocean Data Portal. The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review.

Alternately, you may download the bird model results files underlying the portal maps through the NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf project webpage.

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

What if I have eagles on my list?

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

Proper Interpretation and Use of Your Migratory Bird Report

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

Facilities

National Wildlife Refuge lands

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

THERE ARE NO REFUGE LANDS AT THIS LOCATION.

Fish hatcheries

THERE ARE NO FISH HATCHERIES AT THIS LOCATION.

Wetlands in the National Wetlands Inventory

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

For more information please contact the Regulatory Program of the local U.S. Army Corps of Engineers District.

WETLAND INFORMATION IS NOT AVAILABLE AT THIS TIME

This can happen when the National Wetlands Inventory (NWI) map service is unavailable, or for very large projects that intersect many wetland areas. Try again, or visit the NWI map to view wetlands at this location.

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tuberficid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

USFWS IPaC Resource List

Appendix E
Air Quality Emission Estimates and Record of Non-Applicability

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

1. General Information

- Action Location

Base: HOMESTEAD JARB
State: Florida
County(s): Miami-Dade
Regulatory Area(s): NOT IN A REGULATORY AREA

- Action Title: Construction of a Corrosion Facility/Wash Rack

- Project Number/s (if applicable):

- Projected Action Start Date: 4 / 2021

- Action Purpose and Need:

The Proposed Action is to establish a corrosion facility/wash rack that is compliant with UFC 4-211-02. The Proposed Action is the Preferred Alternative and includes the construction and operation of a corrosion facility/wash rack two-bay hangar facility for aircraft corrosion mitigation/maintenance and wash rack functions. The project will include a reinforced concrete foundation, concrete slab, structural steel frame, roofing, lightning protection system, exterior, electrical work, site improvements, utilities, fire detection/protection, wash water retention, worker fall protection, bridge cranes, and all necessary supporting facilities and controls for a complete and usable facility. The proposed facility would have individual work surfaces, restrooms, lockers, transfer and changing areas, showers, break area, offices, computer training area, and two corrosion (maintenance)/wash bays.

- Action Description:

The Proposed Action is to establish a corrosion facility/wash rack that is compliant with UFC 4-211-02. The Proposed Action is the Preferred Alternative and includes the construction and operation of a corrosion facility/wash rack two-bay hangar facility for aircraft corrosion mitigation/maintenance and wash rack functions. The project will include a reinforced concrete foundation, concrete slab, structural steel frame, roofing, lightning protection system, exterior, electrical work, site improvements, utilities, fire detection/protection, wash water retention, worker fall protection, bridge cranes, and all necessary supporting facilities and controls for a complete and usable facility. The proposed facility would have individual work surfaces, restrooms, lockers, transfer and changing areas, showers, break area, offices, computer training area, and two corrosion (maintenance)/wash bays.

- Point of Contact

Name: Robbie Gray
Title: Contractor
Organization: Jacobs Engineering
Email: Robbie.gray@jacobs.com
Phone Number: 334-215-9038

- Activity List:

Activity Type		Activity Title
2.	Construction / Demolition	New Corrosion Control Facility

Emission factors and air emission estimating methods come from the United States Air Force's Air Emissions Guide for Air Force Stationary Sources, Air Emissions Guide for Air Force Mobile Sources, and Air Emissions Guide for Air Force Transitory Sources.

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

2. Construction / Demolition

2.1 General Information & Timeline Assumptions

- Activity Location
County: Miami-Dade
Regulatory Area(s): NOT IN A REGULATORY AREA

- Activity Title: New Corrosion Control Facility

- Activity Description:
New Corrosion Control Facility

- Activity Start Date
Start Month: 4
Start Month: 2021

- Activity End Date
Indefinite: False
End Month: 9
End Month: 2022

- Activity Emissions:

Pollutant	Total Emissions (TONs)
VOC	0.682450
SO_x	0.005973
NO_x	2.475918
CO	2.742596
PM 10	1.411424

Pollutant	Total Emissions (TONs)
PM 2.5	0.111112
Pb	0.000000
NH_3	0.002166
CO_2e	581.2

2.1 Site Grading Phase

2.1.1 Site Grading Phase Timeline Assumptions

- Phase Start Date
Start Month: 4
Start Quarter: 1
Start Year: 2021

- Phase Duration
Number of Month: 2
Number of Days: 0

2.1.2 Site Grading Phase Assumptions

- General Site Grading Information
Area of Site to be Graded (ft^2): 65340
Amount of Material to be Hauled On-Site (yd^3): 0
Amount of Material to be Hauled Off-Site (yd^3): 0

- Site Grading Default Settings
Default Settings Used: Yes
Average Day(s) worked per week: 5 (default)

- Construction Exhaust (default)

Equipment Name	Number Of Equipment	Hours Per Day
Graders Composite	1	6
Other Construction Equipment Composite	1	8
Rubber Tired Dozers Composite	1	6
Tractors/Loaders/Backhoes Composite	1	7

- Vehicle Exhaust

Average Hauling Truck Capacity (yd^3): 20 (default)
Average Hauling Truck Round Trip Commute (mile): 20 (default)

- Vehicle Exhaust Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	0	0	0	0	0	100.00	0

- Worker Trips

Average Worker Round Trip Commute (mile): 20 (default)

- Worker Trips Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	50.00	50.00	0	0	0	0	0

2.1.3 Site Grading Phase Emission Factor(s)

- Construction Exhaust Emission Factors (lb/hour) (default)

Graders Composite								
	VOC	**SO_x**	**NO_x**	**CO**	**PM 10**	**PM 2.5**	**CH_4**	**CO_2e**
Emission Factors	0.0860	0.0014	0.5212	0.5747	0.0247	0.0247	0.0077	132.93
Other Construction Equipment Composite								
	VOC	**SO_x**	**NO_x**	**CO**	**PM 10**	**PM 2.5**	**CH_4**	**CO_2e**
Emission Factors	0.0533	0.0012	0.3119	0.3497	0.0121	0.0121	0.0048	122.61
Rubber Tired Dozers Composite								
	VOC	**SO_x**	**NO_x**	**CO**	**PM 10**	**PM 2.5**	**CH_4**	**CO_2e**
Emission Factors	0.2015	0.0024	1.4660	0.7661	0.0581	0.0581	0.0181	239.53
Tractors/Loaders/Backhoes Composite								
	VOC	**SO_x**	**NO_x**	**CO**	**PM 10**	**PM 2.5**	**CH_4**	**CO_2e**
Emission Factors	0.0407	0.0007	0.2505	0.3606	0.0112	0.0112	0.0036	66.890

- Vehicle Exhaust & Worker Trips Emission Factors (grams/mile)

	VOC	SO_x	NO_x	CO	PM 10	PM 2.5	Pb	NH_3	CO_2e
LDGV	000.282	000.002	000.207	003.392	000.006	000.005		000.023	00341.791
LDGT	000.376	000.003	000.373	004.889	000.007	000.006		000.024	00439.705
HDGV	000.832	000.005	000.964	016.217	000.016	000.014		000.046	00814.851
LDDV	000.084	000.003	000.127	002.822	000.004	000.004		000.008	00334.379
LDDT	000.227	000.004	000.365	004.850	000.007	000.006		000.008	00473.628
HDDV	000.423	000.014	004.175	001.653	000.176	000.162		000.028	01559.331
MC	003.040	000.003	000.626	013.017	000.026	000.023		000.052	00392.775

2.1.4 Site Grading Phase Formula(s)

- Fugitive Dust Emissions per Phase

$PM10_{FD} = (20 * ACRE * WD) / 2000$

$PM10_{FD}$: Fugitive Dust PM 10 Emissions (TONs)
20: Conversion Factor Acre Day to pounds (20 lb / 1 Acre Day)
ACRE: Total acres (acres)
WD: Number of Total Work Days (days)
2000: Conversion Factor pounds to tons

- Construction Exhaust Emissions per Phase

$CEE_{POL} = (NE * WD * H * EF_{POL}) / 2000$

CEE_{POL}: Construction Exhaust Emissions (TONs)
NE: Number of Equipment
WD: Number of Total Work Days (days)
H: Hours Worked per Day (hours)
EF_{POL}: Emission Factor for Pollutant (lb/hour)
2000: Conversion Factor pounds to tons

- Vehicle Exhaust Emissions per Phase

$VMT_{VE} = (HA_{OnSite} + HA_{OffSite}) * (1 / HC) * HT$

VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)
HA_{OnSite}: Amount of Material to be Hauled On-Site (yd^3)
$HA_{OffSite}$: Amount of Material to be Hauled Off-Site (yd^3)
HC: Average Hauling Truck Capacity (yd^3)
(1 / HC): Conversion Factor cubic yards to trips (1 trip / HC yd^3)
HT: Average Hauling Truck Round Trip Commute (mile/trip)

$V_{POL} = (VMT_{VE} * 0.002205 * EF_{POL} * VM) / 2000$

V_{POL}: Vehicle Emissions (TONs)
VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)
0.002205: Conversion Factor grams to pounds
EF_{POL}: Emission Factor for Pollutant (grams/mile)
VM: Vehicle Exhaust On Road Vehicle Mixture (%)
2000: Conversion Factor pounds to tons

- Worker Trips Emissions per Phase

$VMT_{WT} = WD * WT * 1.25 * NE$

VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)
WD: Number of Total Work Days (days)
WT: Average Worker Round Trip Commute (mile)
1.25: Conversion Factor Number of Construction Equipment to Number of Works
NE: Number of Construction Equipment

$V_{POL} = (VMT_{WT} * 0.002205 * EF_{POL} * VM) / 2000$

V_{POL}: Vehicle Emissions (TONs)
VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)
0.002205: Conversion Factor grams to pounds
EF_{POL}: Emission Factor for Pollutant (grams/mile)
VM: Worker Trips On Road Vehicle Mixture (%)
2000: Conversion Factor pounds to tons

2.2 Building Construction Phase

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

2.2.1 Building Construction Phase Timeline Assumptions

- Phase Start Date
Start Month: 6
Start Quarter: 1
Start Year: 2021

- Phase Duration
Number of Month: 12
Number of Days: 0

2.2.2 Building Construction Phase Assumptions

- General Building Construction Information
Building Category: Office or Industrial
Area of Building (ft^2): 23800
Height of Building (ft): 40
Number of Units: N/A

- Building Construction Default Settings
Default Settings Used: Yes
Average Day(s) worked per week: 5 (default)

- Construction Exhaust (default)

Equipment Name	Number Of Equipment	Hours Per Day
Cranes Composite	1	6
Forklifts Composite	2	6
Generator Sets Composite	1	8
Tractors/Loaders/Backhoes Composite	1	8
Welders Composite	3	8

- Vehicle Exhaust
Average Hauling Truck Round Trip Commute (mile): 20 (default)

- Vehicle Exhaust Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	0	0	0	0	0	100.00	0

- Worker Trips
Average Worker Round Trip Commute (mile): 20 (default)

- Worker Trips Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	50.00	50.00	0	0	0	0	0

- Vendor Trips
Average Vendor Round Trip Commute (mile): 40 (default)

- Vendor Trips Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	0	0	0	0	0	100.00	0

2.2.3 Building Construction Phase Emission Factor(s)

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

- Construction Exhaust Emission Factors (lb/hour) (default)

Cranes Composite								
	VOC	**SO_x**	**NO_x**	**CO**	**PM 10**	**PM 2.5**	**CH_4**	**CO_2e**
Emission Factors	0.0845	0.0013	0.6033	0.3865	0.0228	0.0228	0.0076	128.82
Forklifts Composite								
	VOC	**SO_x**	**NO_x**	**CO**	**PM 10**	**PM 2.5**	**CH_4**	**CO_2e**
Emission Factors	0.0293	0.0006	0.1458	0.2148	0.0056	0.0056	0.0026	54.462
Generator Sets Composite								
	VOC	**SO_x**	**NO_x**	**CO**	**PM 10**	**PM 2.5**	**CH_4**	**CO_2e**
Emission Factors	0.0362	0.0006	0.2977	0.2707	0.0130	0.0130	0.0032	61.074
Tractors/Loaders/Backhoes Composite								
	VOC	**SO_x**	**NO_x**	**CO**	**PM 10**	**PM 2.5**	**CH_4**	**CO_2e**
Emission Factors	0.0407	0.0007	0.2505	0.3606	0.0112	0.0112	0.0036	66.890
Welders Composite								
	VOC	**SO_x**	**NO_x**	**CO**	**PM 10**	**PM 2.5**	**CH_4**	**CO_2e**
Emission Factors	0.0280	0.0003	0.1634	0.1787	0.0088	0.0088	0.0025	25.665

- Vehicle Exhaust & Worker Trips Emission Factors (grams/mile)

	VOC	**SO_x**	**NO_x**	**CO**	**PM 10**	**PM 2.5**	**Pb**	**NH_3**	**CO_2e**
LDGV	000.282	000.002	000.207	003.392	000.006	000.005		000.023	00341.791
LDGT	000.376	000.003	000.373	004.889	000.007	000.006		000.024	00439.705
HDGV	000.832	000.005	000.964	016.217	000.016	000.014		000.046	00814.851
LDDV	000.084	000.003	000.127	002.822	000.004	000.004		000.008	00334.379
LDDT	000.227	000.004	000.365	004.850	000.007	000.006		000.008	00473.628
HDDV	000.423	000.014	004.175	001.653	000.176	000.162		000.028	01559.331
MC	003.040	000.003	000.626	013.017	000.026	000.023		000.052	00392.775

2.2.4 Building Construction Phase Formula(s)

- Construction Exhaust Emissions per Phase

$CEE_{POL} = (NE * WD * H * EF_{POL}) / 2000$

CEE_{POL}: Construction Exhaust Emissions (TONs)
NE: Number of Equipment
WD: Number of Total Work Days (days)
H: Hours Worked per Day (hours)
EF_{POL}: Emission Factor for Pollutant (lb/hour)
2000: Conversion Factor pounds to tons

- Vehicle Exhaust Emissions per Phase

$VMT_{VE} = BA * BH * (0.42 / 1000) * HT$

VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)
BA: Area of Building (ft^2)
BH: Height of Building (ft)
(0.42 / 1000): Conversion Factor ft^3 to trips (0.42 trip / 1000 ft^3)
HT: Average Hauling Truck Round Trip Commute (mile/trip)

$V_{POL} = (VMT_{VE} * 0.002205 * EF_{POL} * VM) / 2000$

V_{POL}: Vehicle Emissions (TONs)
VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)
0.002205: Conversion Factor grams to pounds
EF_{POL}: Emission Factor for Pollutant (grams/mile)
VM: Worker Trips On Road Vehicle Mixture (%)

2000: Conversion Factor pounds to tons

- Worker Trips Emissions per Phase
$VMT_{WT} = WD * WT * 1.25 * NE$

VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)
WD: Number of Total Work Days (days)
WT: Average Worker Round Trip Commute (mile)
1.25: Conversion Factor Number of Construction Equipment to Number of Works
NE: Number of Construction Equipment

$V_{POL} = (VMT_{WT} * 0.002205 * EF_{POL} * VM) / 2000$

V_{POL}: Vehicle Emissions (TONs)
VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)
0.002205: Conversion Factor grams to pounds
EF_{POL}: Emission Factor for Pollutant (grams/mile)
VM: Worker Trips On Road Vehicle Mixture (%)
2000: Conversion Factor pounds to tons

- Vender Trips Emissions per Phase
$VMT_{VT} = BA * BH * (0.38 / 1000) * HT$

VMT_{VT}: Vender Trips Vehicle Miles Travel (miles)
BA: Area of Building (ft^2)
BH: Height of Building (ft)
(0.38 / 1000): Conversion Factor ft^3 to trips (0.38 trip / 1000 ft^3)
HT: Average Hauling Truck Round Trip Commute (mile/trip)

$V_{POL} = (VMT_{VT} * 0.002205 * EF_{POL} * VM) / 2000$

V_{POL}: Vehicle Emissions (TONs)
VMT_{VT}: Vender Trips Vehicle Miles Travel (miles)
0.002205: Conversion Factor grams to pounds
EF_{POL}: Emission Factor for Pollutant (grams/mile)
VM: Worker Trips On Road Vehicle Mixture (%)
2000: Conversion Factor pounds to tons

2.3 Architectural Coatings Phase

2.3.1 Architectural Coatings Phase Timeline Assumptions

- Phase Start Date
Start Month: 6
Start Quarter: 1
Start Year: 2022

- Phase Duration
Number of Month: 2
Number of Days: 0

2.3.2 Architectural Coatings Phase Assumptions

- General Architectural Coatings Information
Building Category: Non-Residential

Total Square Footage (ft^2): 23800
Number of Units: N/A

- Architectural Coatings Default Settings
Default Settings Used: Yes
Average Day(s) worked per week: 5 (default)

- Worker Trips
Average Worker Round Trip Commute (mile): 20 (default)

- Worker Trips Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	50.00	50.00	0	0	0	0	0

2.3.3 Architectural Coatings Phase Emission Factor(s)

- Worker Trips Emission Factors (grams/mile)

	VOC	SO_x	NO_x	CO	PM 10	PM 2.5	Pb	NH_3	CO_2e
LDGV	000.282	000.002	000.207	003.392	000.006	000.005		000.023	00341.791
LDGT	000.376	000.003	000.373	004.889	000.007	000.006		000.024	00439.705
HDGV	000.832	000.005	000.964	016.217	000.016	000.014		000.046	00814.851
LDDV	000.084	000.003	000.127	002.822	000.004	000.004		000.008	00334.379
LDDT	000.227	000.004	000.365	004.850	000.007	000.006		000.008	00473.628
HDDV	000.423	000.014	004.175	001.653	000.176	000.162		000.028	01559.331
MC	003.040	000.003	000.626	013.017	000.026	000.023		000.052	00392.775

2.3.4 Architectural Coatings Phase Formula(s)

- Worker Trips Emissions per Phase
$VMT_{WT} = (1 * WT * PA) / 800$

VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)
1: Conversion Factor man days to trips (1 trip / 1 man * day)
WT: Average Worker Round Trip Commute (mile)
PA: Paint Area (ft^2)
800: Conversion Factor square feet to man days (1 ft^2 / 1 man * day)

$V_{POL} = (VMT_{WT} * 0.002205 * EF_{POL} * VM) / 2000$

V_{POL}: Vehicle Emissions (TONs)
VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)
0.002205: Conversion Factor grams to pounds
EF_{POL}: Emission Factor for Pollutant (grams/mile)
VM: Worker Trips On Road Vehicle Mixture (%)
2000: Conversion Factor pounds to tons

- Off-Gassing Emissions per Phase
$VOC_{AC} = (AB * 2.0 * 0.0116) / 2000.0$

VOC_{AC}: Architectural Coating VOC Emissions (TONs)
BA: Area of Building (ft^2)
2.0: Conversion Factor total area to coated area (2.0 ft^2 coated area / total area)
0.0116: Emission Factor (lb/ft^2)
2000: Conversion Factor pounds to tons

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

2.4 Paving Phase

2.4.1 Paving Phase Timeline Assumptions

- Phase Start Date
Start Month: 8
Start Quarter: 1
Start Year: 2022

- Phase Duration
Number of Month: 2
Number of Days: 0

2.4.2 Paving Phase Assumptions

- General Paving Information
Paving Area (ft^2): 41540

- Paving Default Settings
Default Settings Used: Yes
Average Day(s) worked per week: 5 (default)

- Construction Exhaust (default)

Equipment Name	Number Of Equipment	Hours Per Day
Cement and Mortar Mixers Composite	4	6
Pavers Composite	1	7
Paving Equipment Composite	1	8
Rollers Composite	1	7
Tractors/Loaders/Backhoes Composite	1	7

- Vehicle Exhaust
Average Hauling Truck Round Trip Commute (mile): 20 (default)

- Vehicle Exhaust Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	0	0	0	0	0	100.00	0

- Worker Trips
Average Worker Round Trip Commute (mile): 20 (default)

- Worker Trips Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	50.00	50.00	0	0	0	0	0

2.4.3 Paving Phase Emission Factor(s)

- Construction Exhaust Emission Factors (lb/hour) (default)

Graders Composite								
	VOC	SO_x	NO_x	CO	PM 10	PM 2.5	CH_4	CO_2e
Emission Factors	0.0860	0.0014	0.5212	0.5747	0.0247	0.0247	0.0077	132.93
Other Construction Equipment Composite								
	VOC	SO_x	NO_x	CO	PM 10	PM 2.5	CH_4	CO_2e
Emission Factors	0.0533	0.0012	0.3119	0.3497	0.0121	0.0121	0.0048	122.61

Rubber Tired Dozers Composite								
	VOC	SO_x	NO_x	CO	PM 10	PM 2.5	CH_4	CO_2e
Emission Factors	0.2015	0.0024	1.4660	0.7661	0.0581	0.0581	0.0181	239.53
Tractors/Loaders/Backhoes Composite								
	VOC	SO_x	NO_x	CO	PM 10	PM 2.5	CH_4	CO_2e
Emission Factors	0.0407	0.0007	0.2505	0.3606	0.0112	0.0112	0.0036	66.890

- Vehicle Exhaust & Worker Trips Emission Factors (grams/mile)

	VOC	SO_x	NO_x	CO	PM 10	PM 2.5	Pb	NH_3	CO_2e
LDGV	000.282	000.002	000.207	003.392	000.006	000.005		000.023	00341.791
LDGT	000.376	000.003	000.373	004.889	000.007	000.006		000.024	00439.705
HDGV	000.832	000.005	000.964	016.217	000.016	000.014		000.046	00814.851
LDDV	000.084	000.003	000.127	002.822	000.004	000.004		000.008	00334.379
LDDT	000.227	000.004	000.365	004.850	000.007	000.006		000.008	00473.628
HDDV	000.423	000.014	004.175	001.653	000.176	000.162		000.028	01559.331
MC	003.040	000.003	000.626	013.017	000.026	000.023		000.052	00392.775

2.4.4 Paving Phase Formula(s)

- Construction Exhaust Emissions per Phase

$CEE_{POL} = (NE * WD * H * EF_{POL}) / 2000$

CEE_{POL}: Construction Exhaust Emissions (TONs)
NE: Number of Equipment
WD: Number of Total Work Days (days)
H: Hours Worked per Day (hours)
EF_{POL}: Emission Factor for Pollutant (lb/hour)
2000: Conversion Factor pounds to tons

- Vehicle Exhaust Emissions per Phase

$VMT_{VE} = PA * 0.25 * (1 / 27) * (1 / HC) * HT$

VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)
PA: Paving Area (ft^2)
0.25: Thickness of Paving Area (ft)
(1 / 27): Conversion Factor cubic feet to cubic yards (1 yd^3 / 27 ft^3)
HC: Average Hauling Truck Capacity (yd^3)
(1 / HC): Conversion Factor cubic yards to trips (1 trip / HC yd^3)
HT: Average Hauling Truck Round Trip Commute (mile/trip)

$V_{POL} = (VMT_{VE} * 0.002205 * EF_{POL} * VM) / 2000$

V_{POL}: Vehicle Emissions (TONs)
VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)
0.002205: Conversion Factor grams to pounds
EF_{POL}: Emission Factor for Pollutant (grams/mile)
VM: Vehicle Exhaust On Road Vehicle Mixture (%)
2000: Conversion Factor pounds to tons

- Worker Trips Emissions per Phase

$VMT_{WT} = WD * WT * 1.25 * NE$

VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)
WD: Number of Total Work Days (days)
WT: Average Worker Round Trip Commute (mile)

1.25: Conversion Factor Number of Construction Equipment to Number of Works
NE: Number of Construction Equipment

$V_{POL} = (VMT_{WT} * 0.002205 * EF_{POL} * VM) / 2000$

V_{POL}: Vehicle Emissions (TONs)
VMT_{VE}: Worker Trips Vehicle Miles Travel (miles)
0.002205: Conversion Factor grams to pounds
EF_{POL}: Emission Factor for Pollutant (grams/mile)
VM: Worker Trips On Road Vehicle Mixture (%)
2000: Conversion Factor pounds to tons

- Off-Gassing Emissions per Phase
$VOC_P = (2.62 * PA) / 43560$

VOC_P: Paving VOC Emissions (TONs)
2.62: Emission Factor (lb/acre)
PA: Paving Area (ft^2)
43560: Conversion Factor square feet to acre (43560 ft2 / $acre)^2$ / acre)

AIR CONFORMITY APPLICABILITY MODEL REPORT
RECORD OF AIR ANALYSIS (ROAA)

1. General Information: The Air Force's Air Conformity Applicability Model (ACAM) was used to perform an analysis to assess the potential air quality impact/s associated with the action in accordance with the Air Force Instruction 32-7040, Air Quality Compliance And Resource Management; the Environmental Impact Analysis Process (EIAP, 32 CFR 989); and the General Conformity Rule (GCR, 40 CFR 93 Subpart B). This report provides a summary of the ACAM analysis.

a. Action Location:

Base: HOMESTEAD JARB
State: Florida
County(s): Miami-Dade
Regulatory Area(s): NOT IN A REGULATORY AREA

b. Action Title: Construction of a Corrosion Facility/Wash Rack

c. Project Number/s (if applicable):

d. Projected Action Start Date: 4 / 2021

e. Action Description:

The Proposed Action is to establish a corrosion facility/wash rack that is compliant with UFC 4-211-02. The Proposed Action is the Preferred Alternative and includes the construction and operation of a corrosion facility/wash rack two-bay hangar facility for aircraft corrosion mitigation/maintenance and wash rack functions. The project will include a reinforced concrete foundation, concrete slab, structural steel frame, roofing, lightning protection system, exterior, electrical work, site improvements, utilities, fire detection/protection, wash water retention, worker fall protection, bridge cranes, and all necessary supporting facilities and controls for a complete and usable facility. The proposed facility would have individual work surfaces, restrooms, lockers, transfer and changing areas, showers, break area, offices, computer training area, and two corrosion (maintenance)/wash bays.

f. Point of Contact:

Name: Robbie Gray
Title: Contractor
Organization: Jacobs Engineering
Email: Robbie.gray@jacobs.com
Phone Number: 334-215-9038

2. Air Impact Analysis: Based on the attainment status at the action location, the requirements of the General Conformity Rule are:

_____ applicable
__X__ not applicable

Total combined direct and indirect emissions associated with the action were estimated through ACAM on a calendar-year basis for the "worst-case" and "steady state" (net gain/loss upon action fully implemented) emissions.

"Air Quality Indicators" were used to provide an indication of the significance of potential impacts to air quality. These air quality indicators are EPA General Conformity Rule (GCR) thresholds (de minimis levels) that are applied out of context to their intended use. Therefore, these indicators do not trigger a regulatory requirement; however, they provide a warning that the action is potentially significant. It is important to note that these indicators only provide a clue to the potential impacts to air quality.

AIR CONFORMITY APPLICABILITY MODEL REPORT
RECORD OF AIR ANALYSIS (ROAA)

Given the GCR de minimis threshold values are the maximum net change an action can acceptably emit in non-attainment and maintenance areas, these threshold values would also conservatively indicate an actions emissions within an attainment would also be acceptable. An air quality indicator value of 100 tons/yr is used based on the GCR de minimis threshold for the least severe non-attainment classification for all criteria pollutants (see 40 CFR 93.153). Therefore, the worst-case year emissions were compared against the GCR Indicator and are summarized below.

Analysis Summary:

2021

Pollutant	Action Emissions (ton/yr)	AIR QUALITY INDICATOR	
		Threshold (ton/yr)	Exceedance (Yes or No)
NOT IN A REGULATORY AREA			
VOC	0.232	100	No
NOx	1.440	100	No
CO	1.544	100	No
SOx	0.004	100	No
PM 10	1.363	100	No
PM 2.5	0.063	100	No
Pb	0.000	25	No
NH3	0.001	100	No
CO2e	342.5		

2022

Pollutant	Action Emissions (ton/yr)	AIR QUALITY INDICATOR	
		Threshold (ton/yr)	Exceedance (Yes or No)
NOT IN A REGULATORY AREA			
VOC	0.450	100	No
NOx	1.036	100	No
CO	1.199	100	No
SOx	0.002	100	No
PM 10	0.049	100	No
PM 2.5	0.049	100	No
Pb	0.000	25	No
NH3	0.001	100	No
CO2e	238.7		

2023 - (Steady State)

Pollutant	Action Emissions (ton/yr)	AIR QUALITY INDICATOR	
		Threshold (ton/yr)	Exceedance (Yes or No)
NOT IN A REGULATORY AREA			
VOC	0.000	100	No
NOx	0.000	100	No
CO	0.000	100	No
SOx	0.000	100	No
PM 10	0.000	100	No
PM 2.5	0.000	100	No
Pb	0.000	25	No
NH3	0.000	100	No
CO2e	0.0		

None of estimated emissions associated with this action are above the GCR indicators, indicating no significant impact to air quality; therefore, no further air assessment is needed.

AIR CONFORMITY APPLICABILITY MODEL REPORT
RECORD OF AIR ANALYSIS (ROAA)

Robbie Gray, Contractor

DATE

RECORD OF NON-APPLICABILITY (RONA) FOR GENERAL CONFORMITY

NAME OF PROJECT: New Corrosion Control Facility, Homestead Air Reserve Base, Miami-Dade County, Florida

PROJECT ID NUMBER: _____

POINT OF CONTACT: _____

PHONE/EMAIL: _____

START DATE: 2021

General Conformity under the Clean Air Act, Section 1.76 has been evaluated for the project described above according to the requirements of 40 CFR 93, Subpart B. The requirements of the rule are not applicable to this project/action because:

The project/action qualifies as an exempt action. The applicable exemption citation is 40 CFR 93.153: _____.

OR

Total direct and indirect emissions from this project/action have been estimated at *(only include information for the applicable pollutants):*

2.48 tons/yr of NO_x

0.68 tons/yr of VOC

1.41 tons/yr of PM_{10}

2.74 tons/yr of carbon monoxide (CO)

0.006 tons/yr of sulfur dioxide (SO_2)

These levels are below the conformity threshold values established at the 40 CFR 93.153 (b).

Supporting documentation and emission estimates are:

Attached Environmental Assessment for New Corrosion Control Facility

Appear in NEPA Documentation _____ *(cite reference)*

Other _____ *(cite reference)*

_____

Environmental Coordinator *(Title and Signature)* Date

CFR 93.153