
FINAL
Environmental Assessment
for
Expansion of Sanitary Sewer System
MacDill AFB, Florida

July 2022

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1.0 PURPOSE OF AND NEED FOR PROPOSED ACTION

This Environmental Assessment (EA) identifies, describes, and evaluates potential environmental impacts associated with the proposed expansion of the base sanitary sewer system to the western portion of MacDill AFB. Expansion of the base wastewater collection system to areas west of the runway would allow removal of several aging septic systems that current serve this portion of the installation. Adding a sanitary sewer collection system west of the runway would also encourage development of the western portions of the base, an area that has historically been underutilized.

1.1 PURPOSE OF THE PROPOSED ACTION

The purpose of the Proposed Action is to extend the existing wastewater collection system west of the runway to improve the base sanitary sewer system and eliminate the localized septic systems that have historically served this area of the base. Facilities west of the runway have always utilized septic systems to process wastewater because a connection to the base sanitary sewer system did not exist west of the runway. Extending the wastewater collection network across the runway would allow facilities west of the runway to connect to the sanitary sewer system and the local septic systems would no longer be required. Elimination of these local septic systems would improve the environment by eliminating the discharge of process wastewater to the shallow surficial groundwater system. Consequently, expansion of the sanitary sewer system to the western portion of the installation would provide two significant benefits. It would improve the value of the land by providing infrastructure and utilities that would encourage development. It would also allow the decommissioning of several septic systems which would result in a substantial improvement to the groundwater quality in the surficial aquifer.

1.2 NEED FOR THE PROPOSED ACTION

The military mission and personnel on MacDill Air Force Base have expanded continuously over the past 25 years and there has been no significant change in the installation boundary since initial development of the base in the early 1940's. It is not possible to expand the installation boundary due to heavy residential and commercial development to the north and water bodies that surround the base to the west, south, and east. Force protection requirements and environmental constraints

further reduce the land that is available for development on the installation. The western portion of the base has historically been under-utilized, partially due to lack of robust utilities and infrastructure in this area of the base. Expanding the sanitary sewer system west of the runway would improve opportunities for development in this part of the base. Furthermore, wastewater treatment for facilities on the western portion of the installation is accomplished through the use of septic systems. Septic systems provide an acceptable level of wastewater treatment but they do not compare to the quality of treatment provided by a tertiary treatment wastewater treatment plant. This EA examines the potential for impacts that may result from the installation of approximately 12,900 linear feet of below ground PVC and HDPE piping as well as the construction of multiple lift stations and grinder stations to create a wastewater collection system west of the runway.

1.3 SCOPE OF THE ENVIRONMENTAL REVIEW

This EA examines the potential for impacts to the environment resulting from the installation of below ground piping and construction of several lift stations that would expand the existing wastewater collection system to the western portion of the installation. This environmental analysis has been conducted in accordance with the President’s Council on Environmental Quality (CEQ) regulations, Title 40 of the Code of Federal Regulations (CFR) §§1500-1508, as they implement the requirements of the National Environmental Policy Act (NEPA) of 1969, 42 U.S.C. §4321, et seq., and 32 CFR Part 989, Environmental Impact Analysis Process.

The federal Coastal Zone Management Act (CZMA) requires federal agencies carrying out activities subject to the Act to provide a “consistency determination” to the relevant state agency. The Florida Department of Environmental Protection (FDEP), with input from state and county agencies, determined that the proposed project is consistent with the Florida Coastal Management Program. The Air Force’s Consistency Determination and the Florida State Clearinghouse concurrence is contained in Appendix A. This EA is available for public review. The public notice and any comments received are included in Appendix E.

1.4 ENVIRONMENTAL PERMIT REQUIREMENTS

Completion of this project would require application for a permit from the Environmental Protection Commission of Hillsborough County to construct a domestic wastewater

collection/transmission system. In addition, since the area of land disturbance is anticipated to be larger than one acre in total area, a National Pollutant Discharge Elimination System (NPDES) Construction Generic Permit (CGP) would be required. Impacts to wetlands are not anticipated with this project, and no storm water management permitting would be required since the amount of impervious surface created is considered de minimis.

2.0 DESCRIPTION OF THE PROPOSED ACTION AND ALTERNATIVES

This section provides a description of the Proposed Action and alternatives to the Proposed Action. The Proposed Action involves the installation of a sanitary sewer system to western portions of the installation. This Environmental Assessment considered several alternatives for installation of a new sanitary sewer system including: 1) extending the new system across the airfield (Preferred Alternative), 2) extending the new system around the north end of the runway (Northern Route Alternative), 3) extending the new system around the southern end of the runway (Southern Route Alternative), and 4) connecting the new system to the City of Tampa wastewater infrastructure (City of Tampa Alternative). The No Action alternative was also considered as part of the environmental impact analysis process. Only the Preferred Alternative, Northern Route Alternative and No Action Alternative were evaluated in detail.

2.1 SELECTION STANDARDS

Several scenarios were considered for addressing how to best expand the sanitary sewer system to the west side of the runway. The following selection standards (screening criteria) were used to develop the reasonable range of alternatives described in Sections 2.2 and 2.3.

1. The preferred alternative would use the existing on-base wastewater treatment plant to process wastewater to capitalize on a treatment system that already exists, has sufficient treatment capacity, and has been historically cost effective to operate.
2. The preferred alternative would keep the wastewater distribution system within the installation boundary to ensure that the wastewater treatment process is fully controlled by the Air Force to maintain operational security.

3. The preferred alternative would minimize fixed long-term costs for operation of the system.
4. The preferred alternative would allow the elimination of all septic systems on the west side of the installation.
5. The preferred alternative would minimize impacts to the existing sanitary sewer system where increases in wastewater flow would require upgrades or improvements to infrastructure downstream of the new system.
6. The preferred alternative would minimize impacts to sensitive environmental resources (e.g. wetlands, threatened and endangered species, and archaeological sites) to the maximum extent practical.

2.2 DETAILED DESCRIPTION OF THE PROPOSED ACTION

2.2.1 Background

Areas west of the runway are somewhat geographically separated from the main portion of the installation and have not historically been heavily utilized for base operations. The airfield takes up the majority of the central portion of the base, and the eastern portion of the base is generally the most developed and has historically been the hub of mission-related activity. MacDill's military mission has continued to expand over the last 25 years, but there has not been an increase in the installation footprint, as the base is constrained by water to the east, south and west and by residential and commercial development for the City of Tampa to the north. Force protection requirements, safety restrictions and environmental constraints further limit the availability of buildable land. Expanding the sanitary sewer system would improve the opportunity for development in areas of the installation that have historically been underutilized. Furthermore, the installation currently operates an advanced wastewater treatment system. The existing wastewater treatment plant has a permitted treatment capacity of 1.2 million gallons per day but currently only treats around 0.6 million gallons per day. The wastewater collection, treatment, and disposal facilities for this system are fully located within the installation boundary allowing the Air Force to maintain complete control over the wastewater collection, treatment, and disposal process. The ability to fully operate a wastewater treatment system inside the installation fence line improves

MacDill's operational security since there is no reliance on off-base entities if the base must take a defensive posture and lock down.

2.2.2 Proposed Action

The Proposed Action involves installation of a sanitary sewer system to the western side of the installation. The Proposed Action would construct wastewater collection and distribution infrastructure that would include several thousand feet of below ground force main and gravity drain piping, multiple lift stations and grinder stations, and associated appurtenances. Ideally, the new wastewater collection system would connect to the existing wastewater collection system on the eastern portion of the installation, and collected wastewater would be treated by the existing on-base wastewater treatment facility. Implementation of the Proposed Action would allow several septic systems that currently operate west of the runway to be removed from service and demolished. Several possible ideas were initially developed for accomplishing the Proposed Action; however, only two alternatives were considered truly viable based on the selection criteria. The two primary alternatives considered for implementation of the Proposed Action, one was considered more favorable and is identified as the Preferred Alternative. Both alternatives are described in detail below.

2.2.2.1 Preferred Alternative

The Preferred Alternative would involve the installation of approximately 12,900 linear feet of sanitary sewer force main and the construction of three lift stations and several grinder stations. Construction of the new sanitary sewer system would be accomplished in at least three phases over multiple years. The initial phase is planned for FY22 and would include construction of 4,900 linear feet of below ground piping that crosses the airfield between the new U.S. Army Reserve UH-60 facility and the Control Tower on the west side of the runway. Follow-on phases of work would construct approximately 8,000 linear feet of additional below ground force main piping and additional lift stations along North Boundary Boulevard between Tanker Way Gate and the Defense Fuel Support Point all of which would connect to the lift station near the Control Tower (Figure 2.1).



Figure 2.1: General route identified for expansion of sanitary sewer system under the Preferred Alternative.

Each section of force main would be constructed using PVC or HDPE piping which would be installed below ground. The piping would vary in size from 6 to 12 inches in diameter. The initial phase of work would construct approximately 4,900 linear feet of force main across the airfield to connect the existing lift station at the U.S Army Reserve UH-60 facility to a proposed new lift station near the Control Tower. This initial section of force main would be installed primarily through the cut-and-cover trenching method; however, directional boring would be used to install piping in areas where trenching is not practical, such as crossing the runway and any drainage ditch crossings. Follow-on phases of work would construct additional force main on the west side of the runway between the Defense Fuel Support Point and the Tanker Way Gate. For the follow-on phases of work, force main piping would largely be installed within existing rights-of-way along North Boundary Boulevard and connected side roads. Force main piping would generally be installed three to four feet below land surface except in areas where directional boring is required and piping depths may reach 10 to 20 feet below land surface. In areas where cut-and-cover trenching is used for the installation of piping, temporary ground disturbance would occur along

the length of the linear trench and a width of approximately 10 feet. Between the additional phases of work, it is estimated that approximately 9,900 linear feet of cut-and-cover trenching would be required. Temporary ground disturbance would also result from the establishment of equipment and materials laydown areas. After the force main is installed and the areas of ground disturbance restored, there would be no visible indication of the force main at the land surface and no new impervious surfaces.

Construction of the proposed lift stations and grinder stations would be accomplished using a combination of pre-fabricated and cast-in-place concrete structures. The typical site plan for each lift station is expected to include a deep wet-well, a pump and valve vault, and an above ground equipment enclosure. It is anticipated that the lift station vaults that house the pumps, electrical boxes, piping and equipment would be installed largely below ground with a portion rising above ground to provide access to the vault. Each lift station would likely include a small (roughly 10 ft by 10 ft) concrete block building to house telemetry control equipment and other electrical control panels that would be susceptible to the damp conditions if installed in a below ground vault. Grinder stations would have an even smaller footprint than a lift station. Heavy equipment and typical construction methods would be employed to construct the lift stations/grinder stations. Excavation and ground disturbance would result from construction of the lift station, as well as, creation of equipment/materials laydown areas. Upon completion of each lift station, some above ground infrastructure would be visible on site, including the concrete pump and valve vault, the wet-well lid, and the small equipment enclosure. In total, each lift station is expected to create roughly 300 square feet of added impervious surface and a grinder station slightly less at around 200 square feet of impervious surface.

2.2.2.2 Northern Route Alternative

The Northern Route Alternative would expand the base sanitary sewer system to the western side of the base by routing the pipeline around the north end of the runway over to the Contractor Village area south of Tanker Way Gate. The sewer force main would connect to an existing lift station near the base Medical Clinic (Building 1078) travel north along the Zemke Avenue right-of-way to North Boundary Boulevard then travel west along North Boundary to the Contractor Village area where a new lift station would be constructed (Figure 2.2). This route would primarily follow the utility corridors along existing roadways; areas that have been disturbed routinely through the

installation of utilities in the past. Force main piping would primarily be installed by a standard cut-and-cover trenching approach; however, directional boring would be employed in areas where surface disturbance must be avoided, such as roadway crossings and a culturally significant archaeological site.



Figure 2.2: General route for expanding the sanitary sewer along the Northern Route Alternative.

The Northern Route alternative is slightly longer than the Preferred Alternative running approximately 1.5 miles from the Medical Clinic to the proposed location for the lift station in the Contractor Village area. From the lift station at the Contractor Village area, the sanitary sewer system would follow the same route outlined for the Preferred Alternative, extending south along the edge of the airfield and then west along North Boundary Boulevard to the Control Tower and the Defense Fuels Support Point. As with the Preferred Alternative, two lift stations or grinder stations would be constructed near the Defense Fuel Support Point and near the Contractor Village area as well as the Control Tower.

2.2.3 Alternatives Eliminated from Further Study

2.2.3.1 Southern Route Alternative

The Southern Route Alternative involves expanding the sanitary sewer system to the west side of the runway but routing force main piping around the southern end of the runway. For this route, the first phase of work would create a connection between the existing lift station at the USAR UH-60 facility and the Control Tower. For Phase 1, force main piping would start from the existing lift station at the USAR UH-60 facility and run south to Southshore Avenue then extend to the west following Southshore Avenue around the runway extension to the west side of the runway then along the edge of the airfield up to the Control Tower. This route would utilize the right-of-way along existing roadways for the majority of its route, but would cut across undisturbed land for the last mile where the new force main would travel along the west side of the airfield. For the Southern Alternative, the location of the new distribution system north and west of the Control Tower (i.e. the sections between DFSP and the Tanker Way Gate) would be the same as the Preferred Alternative and the Northern Route Alternative. Consequently, the comparisons shown below only compare the first phase of work for each alternative, since that is the only difference between each alternative. The Southern Route would require more than 13,000 linear feet of construction and temporary land disturbance within the airfield, which is preferred habitat for protected species such as the gopher tortoise and Florida burrowing owl. The disturbance of habitat for state-listed species for the Southern Route Alternative is substantially larger than the disturbance that would occur for either the Preferred Alternative (3,600 LF) or the Northern Route Alternative (3,400 LF). Likewise, the Southern route would result in more than 1,200 LF of construction within contamination clean-up sites, slightly less than that required for the Northern Route Alternative (1,500 LF) and substantially more than the Preferred Alternative (0 LF). Because the Southern Route is substantially longer and would be constructed in the southern portions of the installation, this alternative would require approximately 18,700 LF of construction and land disturbance within the 100-year floodplain. The temporary disturbance of the floodplain associated with the Southern Route is substantially greater than both the Preferred Alternative (~4,000 LF) and the Northern Route Alternative (~1,000 LF). This Southern Route is 3.6 miles in length and is substantially longer than either of the other Phase I (i.e. initial connection) routes considered. The Southern Route would also cost substantially more to install because it requires more than two miles of additional piping and it is anticipated that an additional lift station would also be required. Long-

term maintenance costs would also be higher for the Southern Route because the system is longer and more complex than either the Preferred Alternative or the Northern Route Alternative. Due to the greater potential for temporary disturbance of protected species habitat, an increased potential for adverse effects on worker health and safety associated with construction within contaminated sites, the increased temporary disturbance of the 100-year floodplain, and the added cost associated with construction and long-term maintenance, the Southern Route Alternative was eliminated from further consideration in this Environmental Assessment.

2.2.3.2 Connect to City of Tampa System Alternative

The Connect to City of Tampa Alternative involves the installation of a sanitary sewer system between the Defense Fuel Support Point and the Tanker Way Gate, similar to what is described in the Proposed Action. This alternative would include the installation of lift stations at the Defense Fuel Support Point and in the Contractor Village area to move wastewater effluent to the north. However, instead of making a connection to the base wastewater collection system via the airfield route or along North Boundary Boulevard, this alternative would send wastewater off base to the City of Tampa sanitary sewer system for treatment at the Howard F. Curren Advanced Wastewater Treatment Plant operated by the City of Tampa. Connection to the City of Tampa wastewater collection system would be made somewhere near the Tanker Way Gate along Interbay Boulevard or South Manhattan Avenue. This alternative would eliminate the need for approximately one mile of force main piping and possibly one lift station, thereby reducing initial construction costs. However, this alternative does not meet one of the primary selection criteria. To maintain operational security for the installation, the wastewater collection system should be fully contained within the installation boundaries and not rely on outside support. In addition, by connecting to the City of Tampa sanitary sewer system, MacDill AFB would incur a monthly impact fee from the City for disposal of the wastewater generated by this western collection system. The monthly fee would be tied directly to the quantity of wastewater generated each month, would most likely increase over time, and would be charged in perpetuity. The Florida Government Utility Authority would still own the western collection system and would be required to maintain the system at their own cost. Because this alternative did not meet the selection criteria for maintaining operational security for the installation, as well as the unknown long-term costs associated with this option, the Connect to City of Tampa Alternative was eliminated from further consideration in this Environmental Assessment.

2.3 DESCRIPTION OF THE NO ACTION ALTERNATIVE

Under the No Action Alternative, the sanitary sewer system would not be expanded, and there would be no connection to the sanitary sewer system west of the runway. Under the No Action Alternative, facilities on the western portion of the installation would continue to utilize local septic systems for management of their wastewater effluent.

3.0 AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

In compliance with NEPA, CEQ, and EIAP (32 CFR 989) guidelines, Section 3 of this document focuses only on those resource areas potentially subject to impacts from the two alternatives carried forward for implementation of the Proposed Action, as well as the No Action Alternative. Sections 3.1 thru 3.9 present the potential environmental impacts from the Preferred Alternative and the Northern Route Alternative and also address the No Action Alternative. All potentially relevant resource areas were initially considered for analysis in this EA. Some resource areas would not be affected with implementation of the Proposed Action or the No Action Alternative. Resource areas that have been eliminated from further detailed study in this document and the rationale for eliminating them are presented below:

Transportation. The western portion of the installation has essentially only one roadway, North Boundary Boulevard, and because of the limited number of facilities west of the runway, there is very little vehicle traffic on the road. In addition, the majority of the construction activities associated with the expansion of the sanitary sewer system would be constructed on the airfield or within the existing utility right-of-way for existing roads. During construction, roadway cuts that might divert traffic or require traffic management are not expected because directional boring would be used to install wastewater utilities beneath existing roads. There would be no long-term effects on transportation upon completion of the new wastewater utility system. The proposed action would have a negligible impact on traffic patterns and transportation either short term or long term.

Socioeconomics. The estimated cost of construction for all phases of the sanitary sewer expansion project was \$15M. This expenditure would be spread out over the estimated five years needed to complete all three phases of work, and would have a negligible impact on the \$3.9 billion in total economic impact that MacDill AFB provides to the Economic Impact Region (50-mile radius) around the installation. Similarly, implementation of the Proposed Action would not alter Land Use within or adjacent to project areas. Upon completion of the sanitary sewer expansion, there would be no indication of the wastewater pipelines above ground and land use would not change in areas where wastewater piping are installed.

Environmental Justice and Protection of Children. There are no environmental justice areas of low-income and (or) minority or child populations immediately adjacent to the proposed

project areas. Site construction would not adversely impact low-income and (or) minority or child populations. No subsistence populations, facilities utilized for environmental justice communities, or school or daycare locations exist within or adjacent to the project area. Consequently, environmental justice and protection of children was eliminated from further analysis in this environmental assessment.

Land Use. Construction of the below ground wastewater utility would not change land use classifications in any areas where it is constructed, neither in the short term or the long-term. Since the proposed action would have no effect on land use, it was eliminated from further consideration in this environmental assessment.

3.1 AIR QUALITY

3.1.1 Definition of the Resource

Air pollution is the presence in the outdoor atmosphere of one or more contaminants (e.g., dust, fumes, gas, mist, odor, smoke, or vapor) in quantities and of characteristics and duration such as to be injurious to human, plant, or animal life, or to interfere unreasonably with the comfortable enjoyment of life and property. Air quality as a resource incorporates several components that describe the levels of overall air pollution within a region, sources of air emissions, and regulations governing air emissions.

3.1.2 Existing Conditions

The Clean Air Act (CAA), as amended in 1977 and 1990, provides the basis for regulating air pollution to the atmosphere. The United States Environmental Protection Agency (USEPA) established National Ambient Air Quality Standards (NAAQS) for six “criteria” pollutants: carbon monoxide (CO), nitrogen dioxide (NO₂), ozone (O₃), sulfur oxides (SO_x), measured as sulfur dioxide (SO₂), lead (Pb), and particulate matter with an aerodynamic diameter less than or equal to 10 micrometers (PM₁₀). These standards are the cornerstone of the CAA. Although not directly enforceable, they are the benchmark for the establishment of emission limitations by the states for the pollutants USEPA determines may endanger public health or welfare.

The Environmental Protection Commission of Hillsborough County (EPC) is responsible for issuing and enforcing the CAA Non-Title V Synthetic Minor Air Operation Permit (Permit No. 0570141-027-AO issued 10 September 2021) for MacDill AFB. The 2020 air emission inventory at MacDill AFB found the installation is not a major source of potential emissions for any criteria pollutants.

The USEPA tracks compliance with the air quality standards through designation of a particular region as “attainment” or “non-attainment.” MacDill AFB is located in Hillsborough County within the West Central Florida Intrastate Air Quality Control Region (AQCR). The area encompassed by MacDill AFB is currently classified as being in attainment for all criteria pollutants stipulated under the NAAQS.

3.1.3 Environmental Consequences

Environmental impacts on air quality are determined based on increases in emissions of regulated pollutants when compared to existing conditions. Impacts would be considered significant if the Proposed Action were to exceed the general conformity rule de minimis thresholds, or would contribute to a violation of any federal, state, or local air regulations. Although the area within and around MacDill AFB is in attainment for the NAAQS and the general conformity rule doesn’t apply, the de minimis thresholds have been utilized as a surrogate to determine the level of effects under NEPA.

3.1.3.1 Preferred Alternative

Air quality impacts would occur during expansion of the sanitary sewer system; however, these air quality impacts would be insignificant, minor, and temporary.

Fugitive dust (suspended and PM₁₀ particulate matter) and construction vehicle exhaust emissions would be generated during construction. Dust generated by equipment and construction activities would fall rapidly within a short distance from the source. If required, areas of exposed soil could be sprayed with water daily to suppress dust.

Pollutants from construction equipment and vehicle exhausts include carbon monoxide and carbon dioxide, nitrogen dioxide and nitrogen monoxide, sulfur dioxide, particulate matter, and volatile

organic compounds. Internal combustion engine exhausts from the proposed action would be insignificant and temporary and, like fugitive dust emission would not result in long-term impacts.

For projects not directly related to aircraft, such as the sanitary sewer expansion project, an approved air quality database or tool should be used in conjunction with best available local information to quantify air emissions and estimate potential for impacts to air quality. For the purposes of this project, the air emissions generated from construction equipment and workers commuting to the project site were estimated using the Air Force Air Conformity Applicability Model (ACAM). The ACAM evaluation consisted of two modeling scenarios: the first included all of the phased construction activities for the multi-year project being completed over a one-year period (to estimate a high-end of emissions associated with the project) and a second run that included only the construction activities planned for the first phase of the project over the same one-year period. The modeling results identified priority pollutant emissions for both scenarios; however, all of the emission estimates are significantly lower than applicable Major Source thresholds and generally reflect the nature of the planned work that is characterized by excavation and earth moving activities. In addition, none of the estimated emissions associated with this action as estimated by both of the model runs are above the conformity threshold values established at 40 CFR 93.153 (b). Therefore, the requirements of the General Conformity Rule are not applicable. Copies of the ACAM reports are found in Appendix C.

Emissions from the use of construction equipment would be short-term and occur in low concentrations due to the limited use of heavy equipment. In addition, the open-air nature of the project vicinity would minimize the potential for the concentration of harmful air pollutants to hazardous levels. Overall, no significant impact on regional or local air quality is expected from implementation of the proposed action.

3.1.3.2 Northern Route Alternative

The Northern Route alternative for expansion of the sanitary sewer system is roughly 25% longer than the Proposed Action; however, the type of construction activities involved and the potential to generate fugitive dust and vehicle emission would be the same as those generated under the Proposed Action. No significant impacts to air quality would result from the Northern Route Alternative.

3.1.3.3 No Action Alternative

Because the status quo would be maintained, there would be no impacts to air quality under the No Action Alternative.

3.1.3.4 Cumulative Air Quality Impacts

The Proposed Action would not have adverse cumulative impacts on air quality. Air emissions from expansion of the sanitary sewer system would be negligible with respect to regional criteria pollutant emissions. Air emissions from other ongoing or future development projects at MacDill AFB would be temporary, intermittent, and minor.

3.2 NOISE

3.2.1 Definition of the Resource

Sound is a physical phenomenon consisting of vibrations that travel through a medium, such as air or water, and are sensed by the human ear. Noise is defined as any sound that is undesirable because it interferes with communication, is intense enough to damage hearing, or is otherwise intrusive. Human response to noise varies depending on the type and characteristics of the noise, distance between the noise source and the receptor, receptor sensitivity, and time of day. Noise is often generated by activities essential to a community's quality of life, such as aircraft operations, construction or vehicular traffic.

Sound varies by both intensity and frequency. Sound pressure level, described in decibels (dB), quantifies sound intensity. The dB is a logarithmic unit that expresses the ratio of a sound pressure level to a standard reference level. Hertz quantifies sound frequency. The human ear responds differently to different frequencies. "A-weighting," measured in A-weighted decibels (dBA), approximates a frequency response expressing the perception of sound by humans.

The dBA noise metric describes steady noise levels, although very few noises are, in fact, constant; therefore, day-night sound level (DNL) has been developed. DNL is defined as the average sound energy in a 24-hour period with a 10-dB penalty added to the nighttime levels (10 p.m. to 7 a.m.). DNL is a useful descriptor for noise because: (A) it averages ongoing yet intermittent noise and (B) it measures total sound energy over a 24-hour period. The USAF uses the DNL metric in assessing

the amount of aircraft noise exposure, and as a metric for community response to the various levels of exposure. In addition, equivalent sound level (Leq), the average sound level in dBA, is often used to describe the overall noise environment.

3.2.2 Existing Conditions

The Air Installation Compatible Use Zone (AICUZ) Study (2014) plotted the DNL from 65 to 80 dB for an average day and a busy day at the base. The DNL contours reflect the aircraft operations at MacDill AFB. The DNL 65 dB contour covers the main runway, and extends about one mile southwest over Tampa Bay, and about one mile northeast over South Tampa. Smaller DNL 65 dB contours are centered near the north and south parking ramps. Construction activities for the Proposed Action would occur in the vicinity of the runway which is generally the noisiest part of the base. Work areas for the Proposed Action cross multiple noise zones on MacDill ranging from the noisiest 80 dB zone around the active runway to quieter areas to the west and south; however the DNL for all proposed work areas is 65 dB or higher.



Figure 3.1: Noise contours around MacDill runway range from 80 dB at center to 65 dB at outermost contour

3.2.3 Environmental Consequences

Changes in noise would be considered significant if they were to lead to a violation of any federal, state, or local noise ordinance, or would substantially increase areas of incompatible land use outside the MacDill AFB boundary.

3.2.3.1 Preferred Alternative

The closest noise sensitive receptors in the vicinity of construction activities associated with expansion of the sanitary sewer system (within 500 feet) include the occupants of Buildings 865, 885, 895, 1010, 1011, 1012, 1013, 1014, 1102, 1110, 1115, 1129 and 1180.

The adjacent receptors would probably experience noise impacts from construction activities and/or construction-related vehicles. The magnitude of these impacts would be directly related to the proximity of the occupied facility to the work site. In addition, the impacts vary according to the activity occurring on any particular day, and impacts would cease when construction is completed. Based on a cumulative average construction noise level of approximately 85 dB at 50 feet from the center of the project site (depending upon the current stage of the project), occupants of the nearest buildings would be negatively impacted. However, these impacts are temporary and considered minor.

3.2.3.2 Northern Route Alternative

This Alternative would have impacts to the same noise sensitive receptors that are identified for the Proposed Action since a large portion of the utility route falls within the same areas.

However, the Northern Route Alternative does pass by several other buildings that are not included with the Proposed Action. Buildings 924, 926, 930, 934, and 1078 are occupied facilities that lie within 500 feet of the proposed utility route on the east side of the runway.

Under this Alternative, a greater number of people would be exposed to higher noise levels; however, the exposure would be temporary, intermittent, and minor in nature, and no significant noise impacts would occur.

3.2.3.3 No Action Alternative

Under the No Action Alternative no noise impacts would occur.

3.3 WASTES, HAZARDOUS MATERIALS, AND STORED FUEL

3.3.1 Definition of the Resource

Hazardous materials are defined by 49 CFR § 171.8 as hazardous substances, hazardous wastes, marine pollutants, elevated temperature materials, materials designated as hazardous in the Hazardous Materials Table (49 CFR § 172.101), and materials that meet the defining criteria for hazard classes and divisions in 49 CFR § 173. Hazardous wastes are defined by the Resource Conservation and Recovery Act (RCRA) at 42 USC § 6903(5), as amended by the Hazardous and Solid Waste Amendments, as “a solid waste, or combination of solid wastes, which because of its quantity, concentration, or physical, chemical, or infectious characteristics may (A) cause, or significantly contribute to an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness; or (B) pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, or disposed of, or otherwise managed.”

Evaluation of hazardous materials and wastes focuses on the presence, storage, transport, handling, and disposal of these substances. Consideration of environmental contamination sites also is included during the evaluation of hazardous materials and wastes. In addition to being a threat to humans, the improper release of hazardous materials and wastes can threaten the health and well-being of wildlife species, botanical habitats, soil systems, and water resources. In the event of a release of hazardous materials or wastes, the extent of contamination varies based on the contaminant and the soil, topography, and water resources.

Under the Superfund Amendments and Reauthorization Act, the Defense ERP requires defense installations to identify, investigate, and cleanup hazardous waste dispersal or release sites. In accordance with USAF policy (AFI 32-7020), all ERP sites on MacDill AFB are addressed in a manner consistent with Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and Resource Conservation and Recovery Act (RCRA) requirements and are overseen by FDEP.

3.3.2 Existing Conditions

Hazardous wastes generated at MacDill AFB include solvents, fuels, lubricants, stripping materials, used oils, waste paint-related materials, and other miscellaneous wastes. The responsibility for managing hazardous waste lies with the generating organization and 6 CEIE. Wastes come from approximately 50 locations throughout the base and are managed at satellite accumulation points base-wide.

Approximately 105 operations base-wide use hazardous materials. Hazardous materials on base include various organic solvents, chlorine, freon, paints, thinners, oils, lubricants, compressed gases, pesticides, herbicides, nitrates, and chromates. A detailed tracking and accounting system is in place to identify potentially hazardous materials and to ensure that base organizations are approved to use specific hazardous materials.

The base receives jet fuel (Jet-A) at the Defense Fuel Supply Point (DFSP) by pipeline from Port Tampa. The DFSP facility has three large above ground storage tanks (2.0M gallon each) for storage of Jet-A and there are two additional large above ground storage tanks (1.2M gallon each) at the hydrant fueling system adjacent to the North Flight Apron (North Ramp). Numerous other above ground and underground storage tanks can be found around the installation, ranging in size from 50 gallons to 25,000 gallons that are used primarily for storage of diesel, gasoline, and heating oil.

All generated waste water is treated at the base's privatized waste water treatment plant. The plant is permitted to treat a volume of 1.2 million gallons per day (mgd). Currently, the plant operates at an average of approximately 0.6 mgd. All treated waste water is currently reused on-base by reclamation, principally through spray application at the golf course located at the southeast quadrant of the base.

3.3.2.1 Environmental Restoration Program Sites

Hazardous waste site clean-up operations at MacDill are accomplished under the RCRA Corrective Action program under permit number 34506/HH/00. Several contaminated sites are located along or near areas proposed for construction under the Proposed Action including SWMU-16, SWMU-17, SWMU-18, SWMU-24, SWMU-28, DA568, GR-972, and SS092P. SWMU-16 is an area of

soil and groundwater contamination associated with the historic discharge of petroleum products. The site is an open ERP site with established Land Use Controls; however no construction activities are proposed to occur within the boundary of this site. SWMU-17 is a former drum storage area associated with a historic laundry and dry cleaning facility and is located in the Contractor Village area south of Tanker Way Gate. Soil and groundwater contamination was identified at the site with constituents of concern being volatile compounds, PCBs, and metals. The SWMU-17 site was closed in 2006 with No Further Action required. SWMU-28 is also located in the Contractor Village area. The site had soil and groundwater contamination associated with a former pesticide mixing area for the entomology shop. SWMU-28 is remediated and closed with No Further Action required. SWMU-24 is located in the Defense Fuel Support Point (DFSP) in the western most corner of the installation. The site had soil and groundwater contamination associated with the former DFSP fuel testing laboratory. SWMU-24 is remediated and closed with No Further Action required. SWMU-18 is a Former Chemical Warfare Agent Storage and Training Area located near the new U.S. Army Reserve Aviation Support Facility along Southshore Avenue. SWMU-18 is remediated and closed with No Further Action required. The 76-acre site had metals and polynuclear aromatic hydrocarbons (PAHs) in the soil and groundwater and is under Land Use Controls with no monitoring requirements.

Sites DA568, GR972, and SS092P have all been recently identified as contaminated sites and some initial sampling has occurred; however, full investigation of these sites has not been accomplished and the site boundaries are not fully defined at this time. Site DA568 is associated with a former railroad tracks/rail spur and was only recently discovered. The site is located in the Contractor Village area and has soil and groundwater contamination that include PAHs and arsenic. The boundaries for Site DA568 have not been fully defined at this time and further investigation of the site is proposed for the future. Site GR-972 is a former grenade training and skeet range located in the southwestern portion of the installation near the new U.S. Army Reserve Aviation Support Facility. Constituents of concern include metals and PAHs and the boundaries of the site have not been defined at this time. Further investigation is planned for the future. Site SS092P is located in the DFSP complex and involves soil and groundwater contamination resulting from an Aqueous Fire Fighting Foam (AFFF) release that escaped the containment basin at the truck fill stand. Constituents of concern at the site include perfluorooctanoic acid (PFAS) and perfluorooctane sulfonate (PFOA). The site boundaries for SS092P have not been defined at this time.

Two additional ERP sites are located along the route identified for the Northern Route Alternative. SWMU-13 and SWMU-21 are both located east of the runway near the Base Medical Clinic. SWMU-13 is a former Creosote Pit that had metals contamination in the soils only. SWMU-13 has been closed with No Further Action required. SWMU-21 is a former Refueling and Civil Engineer Storage Area with PAH contamination in the soil. The 4.4 acre SWMU-21 site is also closed with No Further Action required. One open ERP site, Site SS505, is located near the proposed North Alternative route; however, construction activities are not currently proposed to occur within the boundaries of this site. Site SS505 has arsenic contamination in the soil. A conditional Site Rehabilitation Completion Order has been issued that includes Land Use Controls with no monitoring. Annual visual inspections of the site are performed in accordance with the Land Use Control Implementation Plan to confirm that site surface is still a paved surface where no contact with soil is possible.

Additional details on the open Environmental Restoration Program referenced above can be found on the Site Summary sheets located in Appendix D.

3.3.3 Environmental Consequences

Impacts on hazardous materials and wastes would be considered significant if a proposed action would result in noncompliance with applicable federal or state regulations, or increased the amounts generated or procured beyond current MacDill AFB waste management procedures, permits, and capacities. Impacts on the contamination sites would be considered significant if a proposed action disturbed or created contaminated sites resulting in negative effects on human health or the environment, or if a proposed action made it substantially more difficult or costly to remediate existing contaminated sites.

3.3.3.1 Preferred Alternative

A short-term increase in the generation of solid waste would occur during construction activities for the Proposed Action. No long-term changes in the generation or management of solid waste are expected. The base has sufficient resources to manage the short term increase in solid waste and the local landfills have sufficient capacity to accept the solid waste in the short term and long term.

Expansion of the sanitary sewer system to incorporate facilities west of the runway would increase the quantity of water being processed by the wastewater treatment plant, but not significantly. There are approximately 10 facilities west of the runway that are permanently occupied, and another 10 or so facilities (e.g. warehouses) that are occasionally occupied that have restroom facilities. These facilities are currently connected to local septic systems and processed wastewater is discharged to the ground via drainfield. It is estimated that there are 20 to 30 people working in the facilities west of the runway on any given work day. Consequently, expanding the wastewater collection system west of the runway would increase the quantity of water being processed by the wastewater treatment plant by roughly 2,000 gallons a day based on the EPA estimated daily average of 50 to 70 gallons per person per day. An increase of two to three thousand gallons wastewater per day is considered a minor increase for a plant that typically processes an average of 0.6 mdg a day.

Hazardous wastes/materials, such as paint, adhesives, and solvents, may be on site during the construction work for the Proposed Action. All construction related hazardous wastes/materials, including petroleum products, would be removed and disposed of according to base procedures, as well as applicable state and federal regulations. In general, the amount of hazardous materials/wastes would not change with expansion of the sanitary sewer system. No impacts from hazardous materials or waste are anticipated from completion of the project.

Environmental Restoration Program Sites

The Preferred Alternative was evaluated for the potential for impacts to and/or from documented hazardous waste clean-up sites [both Environmental Restoration Account (ERA) and non-ERA funded sites] at MacDill AFB. The Preferred Alternative would involve excavation within SWMU-17 and SWMU-28 in the Contractor Village area for construction of a new lift station and installation of sanitary sewer lines. SWMU-17 and SWMU-28 have both been fully remediated and closed with no further action required. There are no land use controls for these sites and construction within these areas would not result in environmental impacts or represent a threat to health and safety of construction workers. SWMU-24 in the DFSP compound has been remediated and closed. Construction activities are not currently proposed to occur within the boundaries of SWMU-24, and this site has no land use controls, so SWMU-24 would not represent an environmental or health and safety concern. SWMU-18 has also been fully remediated and closed

with no further action required, and would not represent an environmental or human health concern. There are no land use controls for SWMU-18.

SWMU-16 is an active remediation site located on the western portion of the DFSP compound. The site has soil and groundwater contamination associated with petroleum products. Construction activities for the Preferred Alternative would not occur within the boundary of SWMU-16; however, the site is very near one of the proposed grinder stations, as shown in Figure 2.1. If construction plans change, and it becomes necessary to excavate within the boundary of SWMU-16, the site specific requirements for handling contaminated media must be followed. For SWMU-16, these include any groundwater removed for dewatering activities cannot be discharged back to the ground. All removed groundwater must be contained and tested to determine contaminant levels with respect to FDEP Groundwater Clean-up Target Levels. If contained groundwater is below FDEP GCTL's it may be discharged to the storm water drainage system. If contained groundwater exceeds FDEP GCTL's it must be transported off-site for disposal/treatment. Contaminated soil excavated during construction activities can be stage on site and used to backfill excavations upon completion of the utility installation. If excess contaminated soil remains (i.e. backfill of excavations is not required) the excess soil must be hauled off site for disposal at an approved landfill in accordance with FDEP requirements. No other Land Use Controls are established for SWMU-16. The location of SMWU-16, SWMU-17, SWMU-18, SWMU-24, and SWMU-28 are shown in Figure 4-1.

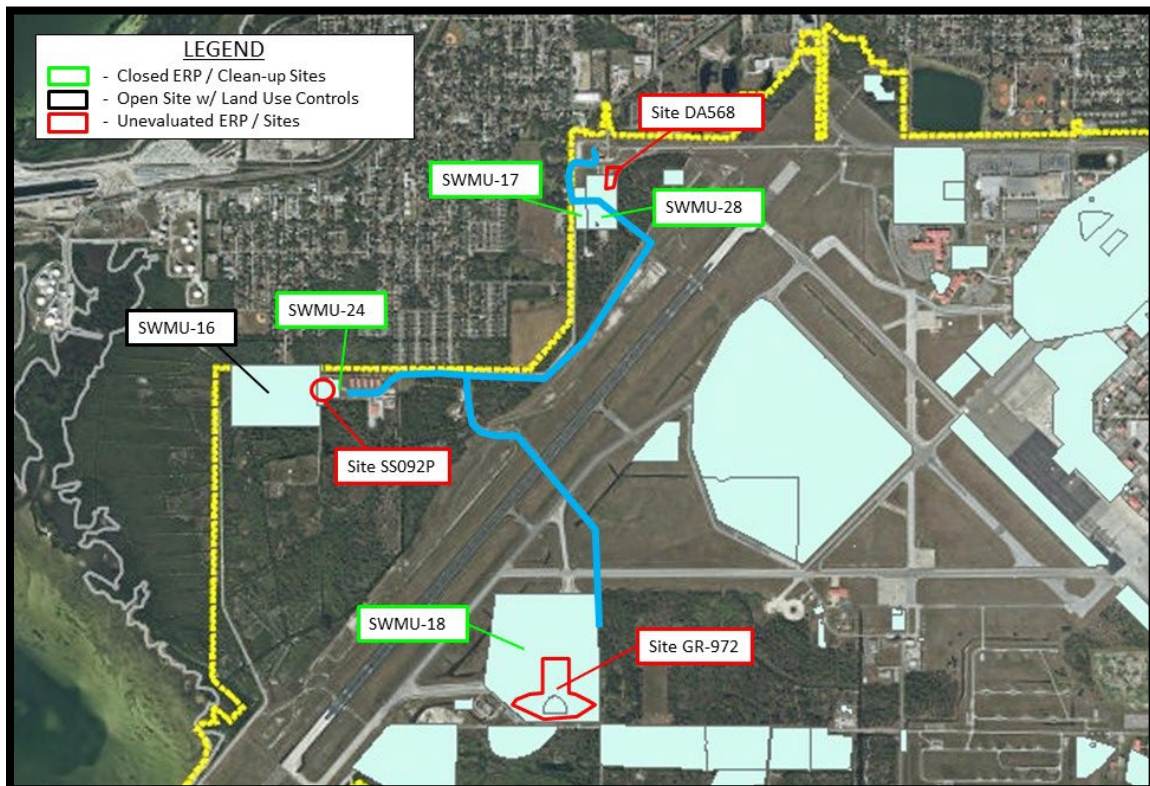


Figure 3.2: Location of Environmental Restoration Program sites in the vicinity of the Preferred Alternative.

There are three newly identified ERP sites in the vicinity of the utility route for the Preferred Alternative. Sites DA568, GR972 and SS092P all require further evaluation to determine the full nature and extent of contamination at each site. As shown in Figure 3.1, construction activities for the Preferred Alternative are not expected to occur within the boundaries of Sites DA568, GR972 and SS092P. If construction plans change, or unexpected contact with contaminated media associated with these sites occurs during construction, construction activities shall halt and the contractor shall coordinate with the MacDill Environmental Restoration Program office and FDEP to establish specific management actions to insure that no environmental impacts or adverse effects to construction worker health and safety occur.

In summary, the Preferred Alternative avoids construction within active or unevaluated ERP sites and should not affect or be affected by any hazardous waste clean-up sites.

3.3.3.2 Northern Route Alternative

There are no differences in the impact on solid waste, hazardous materials, or hazardous waste generation by using the Northern Route alternative.

Environmental Restoration Program Sites

This alternative would include potential contact with two additional hazardous waste clean-up sites (SWMU-13 and SWMU-21); however both of these sites have been remediated and closed with no further action required, so construction in and around these sites does not represent an environmental or health and safety concern. Site SS505 is also located near the proposed route for Northern Route alternative although it is outside the boundary of proposed construction activities. Site SS505 is an active remediation site with soil contaminated with arsenic. The site has Land Use Controls that restrict the site from residential use or the installation of drinking water or irrigation wells. Although not currently proposed, construction within the boundary of the site is permissible as long as proper protective measure are taken to protect the health and safety of workers. Additional information on Site SS505 is provided in Appendix D.



Figure 3.3: Location of Environmental Restoration Program sites in the vicinity of the Northern Route Alternative.

3.3.3.3 No Action Alternative

Under the No Action Alternative, no impacts to wastes, hazardous materials, stored fuel, or Environmental Restoration Program sites would occur since construction or associated improvements would not be implemented.

3.4 WATER RESOURCES

3.4.1 Definition of the Resource

Water resources are natural and man-made sources of water that are available for use by and for the benefit of humans and the environment. Water resources relevant to MacDill AFB in Florida include groundwater, surface water, and wetlands. This section also discusses water quality programs that are enforced as part of water resources protection regulations. Evaluation of water resources examines the quantity and quality of the resource and its demand for various purposes.

3.4.2 Existing Conditions

Surface Water. Surface water flows at the base are primarily from storm water runoff. Topographic maps show that the entire Base is an independent drainage area with no natural surface waters entering or leaving the site prior to final discharge into Tampa Bay. Most of the base drains toward the southern tip of the Interbay Peninsula; however, the easternmost section of the base drains toward Hillsborough Bay.

About 25 percent of the Base surface cover is impervious. The soil type is predominantly poorly drained fine sands. The drainage system consists of piping and surface ditches. Man-made ponds exist primarily on the southeast portion of the Base. In the southern portion of the Base there is a poorly drained area that includes two creeks, Raccoon Hammock Creek and Broad Creek. This area is subject to shallow flooding by the highest of normal tides.

The FDEP issued a National Pollutant Discharge Elimination System (NPDES) Multi-Sector Generic Permit for Storm water Discharge Associated with Industrial Activity (FLR05E128-005) to MacDill AFB in April 2021. The FDEP issued a Phase II Municipal Separate Storm Sewer System (MS4) permit [FLR04E059 (Cycle 4)] to MacDill AFB in January 2018. In accordance with 40 CFR 112, the base has developed a Spill Prevention Control and Countermeasures (SPCC) Plan and a Facility Response Plan given the location of the base adjacent to navigable waters and shorelines, as well as, the amount of fuel storage capacity existing on site.

The Base also maintains a Spill Prevention Control and Countermeasures (SPCC) Plan to satisfy 40 CFR 112. Per the same regulation, a Facility Response Plan was developed given the location of the Base adjacent to navigable waters and shorelines, as well as the amount of fuel storage capacity existing on site.

Groundwater. There are two aquifer systems underlying MacDill AFB, the surficial aquifer and the Floridan aquifer. The surficial aquifer system, which consists generally of sand, clayey sand, and shell, is unconfined and is approximately 20 feet thick; however, the surficial aquifer is not used for water supply at MacDill AFB. The Floridan aquifer underlies the surficial aquifer and is separated from it by a clay confining layer. The Floridan aquifer is a major source of groundwater in the region, but is not used for water supply at MacDill AFB. Potable water is supplied to MacDill AFB by the City of Tampa, which obtains most of its drinking water from surface water sources.

The water table in the surficial aquifer is shallow and ranges from land surface near Tampa Bay and tidal creeks to approximately five feet below land surface at inland locations. Groundwater levels and flow directions generally are determined by low gradients and are tidally influenced by ditches and canals and by Hillsborough and Tampa Bays. The direction of groundwater flow in the surficial aquifer is generally radial from the north-central portion of the Base towards the coastline.

Groundwater quality has been affected by past and present Base activities. Elevated volatile organic compound concentrations have been found in surficial aquifer groundwater at various sites that contain or contained petroleum storage tanks. Elevated metals concentrations have been found in areas of former landfills. Elevated nitrate, nitrite, and pesticide concentrations have been identified in golf course areas.

Wetlands. The 1998 Wetland Delineation Study identified, delineated, and classified approximately 1,195 acres of wetlands on MacDill AFB. Wetland systems included palustrine wetlands (315 acres) and scrub/shrub wetlands (880 acres). Mangrove wetlands are the principal scrub/shrub wetland community on the Base. Black mangrove (*Avicennia germinans*) and white mangrove (*Laguncularia racemosa*) are the dominant species. Red mangrove (*Rhizophora mangle*) is also present at the waterward fringes of the community. The mangroves have been negatively impacted by historic dredge and fill activities and the excavation of mosquito ditches. However, despite these impacts, this community provides valuable wildlife habitat and is protected by state and local regulations. The only wetlands located in the immediately vicinity of the Proposed Action are drainage ditches located in and around the airfield.

3.4.3 Environmental Consequences

3.4.3.1 Preferred Alternative

Surface Water. Some soil erosion would occur during construction activities for expansion of the sanitary sewer system; however, implementation of a sediment and erosion control plan, including use of best management practices (BMPs) such as silt fencing and hay bales, would dramatically reduce erosion and avoid potential storm water violations. As previously stated, the Proposed Action would disturb more than one acre of soil and would therefore require an NPDES construction general permit from the FDEP. Any potential for impacts to storm water as a result

of soil disturbance would be short term in nature, and would be mitigated once the construction sites are stabilized with sod or seeding. The Preferred Alternative would not increase impervious surfaces, and construction of storm water management systems would not be required.

Groundwater. The Preferred Alternative should have a positive long term effect to groundwater quality in the shallow surficial aquifer. Under the Preferred Alternative, four existing septic systems would be removed from service. Wastewater previously treated by these septic system would now be treated at the base wastewater treatment plant. Both wastewater treatment methods end with the discharge of treated wastewater to the ground; however, the tertiary treatment provided by the wastewater treatment process results in cleaner water, and therefore a reduced potential for impacts to groundwater.

Wetlands. The Preferred Alternative should have no impact on wetlands. Installation of the new sanitary sewer system would cross two man-made drainage ditches, which contain wetlands along the ditch banks; however, directional boring would be used to install the new sanitary sewer lines beneath the drainage ditch to avoid impacts to wetlands.

3.4.3.2 Northern Route Alternative

Surface Water. As with the Proposed Action, some soil erosion would occur during construction activities; however, implementation of a sediment and erosion control plan including use of BMPs would dramatically reduce erosion and avoid potential storm water violations. No long-term impacts to surface water would result.

Groundwater. The Northern Route alternative would also result in the elimination of four existing septic systems, consequently the long term positive effect on groundwater would also occur. Under this alternative, there would be no change in the potable water usage.

Wetlands. The Northern Route Alternative would cross one man-made drainage ditch, which contains wetlands along the ditch banks. Because directional boring would be used to install the new sanitary sewer piping beneath the drainage ditch, there would be no impact to wetlands under the Northern Route Alternative.

3.4.3.3 No Action Alternative

The No Action Alternative would not disturb soils. The four existing septic systems would remain in use. Under the No Action Alternative there would be no change to water resources.

3.5 FLOODPLAINS

3.5.1 Definition of the Resource

Floodplains are areas of low-level ground present along rivers, stream channels, large wetlands, or coastal waters. Floodplain ecosystem functions include natural moderation of floods, flood storage and conveyance, groundwater recharge, and nutrient cycling. Risk of flooding typically depends on local topography, the frequency of precipitation events, and the size of the watershed above the floodplain. Flood potential is evaluated by the Federal Emergency Management Agency (FEMA), which defines 100-year and 500-year floodplains. The 100-year floodplain is an area that has a one percent chance of inundation by a flood event in a given year, while 500-year floodplains have a 0.2 percent chance of inundation in a given year.

EO 11988, Floodplain Management, as amended by EO 13690, Establishing a Federal Risk Management Standard and a Process for Further Soliciting and Considering Stakeholder Input, requires federal agencies to determine whether a proposed action would occur within a floodplain. This determination typically involves consultation of FEMA Flood Insurance Rate Maps, which contain enough general information to determine the relationship of the project area to nearby floodplains. EO 11988 directs Federal agencies to avoid floodplains unless the agency determines that no practicable alternative exists. Where the only practicable alternative is to site in a floodplain, the agency should develop measures to reduce impacts and mitigate unavoidable impacts.

3.5.2 Existing Conditions

According to information provided by the Federal Emergency Management Agency (FEMA Maps effective date 7 October 2021), more than 80 percent of the base is within the 100-year floodplain and nearly all of the installation lies in the 500-year floodplain. The maps indicate that all the residential, industrial, and institutional (medical and education) land uses on the base are within the

100-year floodplain, along with most of the commercial and aviation support areas. The majority of the land that is above the floodplain is found in the northwestern portion of the installation and along the northern portion of the active runway. Much of the area outside of the 100-year floodplain is designated for airfield operations.

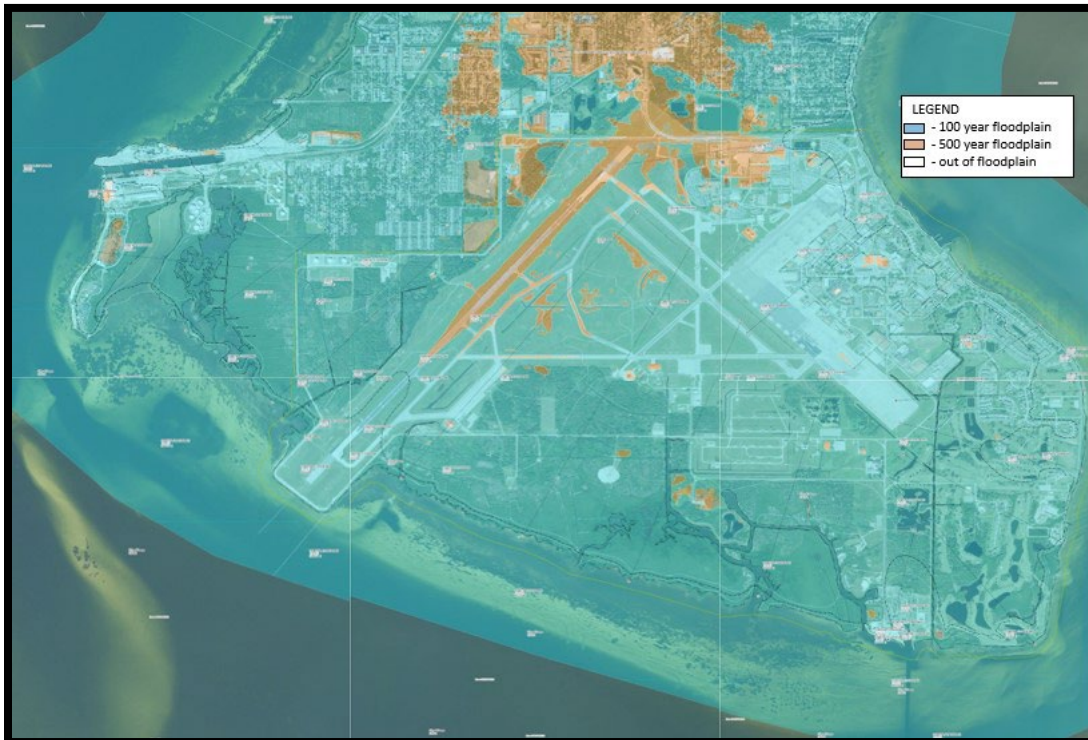


Figure 3.4: Areas of 100-year floodplain (blue) and 500-year floodplain (orange) on MacDill AFB.

Most of the areas where construction activities would occur for the Preferred Alternative fall within the 100-year floodplain except for some scattered areas on the airfield. Conversely, the alternative Northern Route for expanding the sanitary sewer system lies mostly outside the 100-year floodplain (but still largely within the 500-year floodplain).

3.5.3 Environmental Consequences

3.5.3.1 Preferred Alternative

In accordance with the requirements of EO 11988, the Air Force must demonstrate that there is no practicable alternative to carrying out the Proposed Action within the floodplain. The Preferred Alternative would occur within the 100-year coastal floodplain; however, the project would not

result in an increase in impervious surface, or result in an increase risk to human safety and health. The electrical panels associated with the new lift stations would be elevated above the 100-year coastal floodplain. The new wastewater utility lines and associated appurtenances would not be impacted or damaged by flooding. Consequently, there would be no impacts to the floodplain nor would proposed sanitary sewer expansion be impacted by flooding.

3.5.3.2 Northern Route Alternative

A large portion of the Northern Route Alternative would occur within the 100-year coastal floodplain; however, the project would not result in an increase in impervious surface, or result in an increase risk to human safety and health. The electrical panels associated with the new lift stations would be elevated above the 100-year coastal floodplain. The new wastewater utility lines and associated appurtenances would not be impacted or damaged by flooding. Consequently, there would be no impacts to the floodplain nor would proposed sanitary sewer expansion be impacted by flooding.

3.5.3.3 No Action Alternative

The No Action Alternative would have no impact, positive or negative, on the 100-year coastal floodplain.

3.6 NATURAL AND BIOLOGICAL RESOURCES

3.6.1 Definition of the Resource

Biological resources include native or naturalized plants and animals and the habitats (e.g., grasslands, forests, and wetlands) in which they exist. Protected and sensitive biological resources include Endangered Species Act (ESA)-listed species (threatened or endangered) and those proposed for ESA-listing as designated by the U.S. Fish and Wildlife Service (USFWS) (terrestrial and freshwater organisms) and National Marine Fisheries Service (NMFS) (marine organisms), and migratory birds. Migratory birds are protected species under the Migratory Bird Treaty Act (MBTA). Sensitive habitats include those areas designated or proposed by USFWS or NMFS as critical habitat protected by the ESA and as sensitive ecological areas designated by state or other Federal rulings. Sensitive habitats also include wetlands, plant communities that are unusual or

limited in distribution, and important seasonal use areas for wildlife (e.g., migration routes, breeding areas, crucial summer and winter habitats).

The ESA (16 USC § 1531 et seq.) establishes a federal program to protect and recover imperiled species and the ecosystems upon which they depend. The ESA requires federal agencies, in consultation with USFWS, to ensure that actions they authorize, fund, or carry out are not likely to jeopardize the continued existence of any listed species or result in the destruction or adverse modification of designated critical habitat of such species. Under the ESA, “jeopardy” occurs when an action is reasonably expected, directly or indirectly, to diminish numbers, reproduction, or distribution of a species so that the likelihood of survival and recovery in the wild is appreciably reduced. An “endangered species” is defined by the ESA as any species in danger of extinction throughout all or a significant portion of its range. A “threatened species” is defined by the ESA as any species likely to become an endangered species in the foreseeable future. The ESA also prohibits any action that causes a “take” of any listed animal. “Take” is defined as “to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect or attempt to engage in any such conduct.” Listed plants are not protected from take, although it is illegal to collect or maliciously harm them on federal land.

Critical habitat is designated if USFWS or NMFS determines that the habitat is essential to the conservation of a threatened or endangered species. Federal agencies must ensure that their activities do not adversely modify designated critical habitat to the point that it will no longer aid in the species’ recovery.

The Florida Fish and Wildlife Conservation Commission oversees the protection and management of state-protected fauna under the Florida Endangered and Threatened Species Act (Florida Statute 372.072). Within the FAC, protection is provided to endangered species (68A-27.003 FAC) and threatened species (68A-27.004 FAC). The Florida Department of Agriculture and Consumer Services maintains the state list of plants designated as endangered, threatened, and commercially exploited (5B-40 FAC) as defined under Florida Statute 581.185(2).

The MBTA of 1918 (16 U.S.C. 703–712), as amended, and EO 13186, Responsibilities of Federal Agencies to Protect Migratory Birds, require Federal agencies to minimize or avoid impacts on migratory birds. Unless otherwise permitted by regulations, the MBTA makes it unlawful to (or attempt to) pursue, hunt, take, capture, or kill any migratory bird, nest, or egg. If design and

implementation of a federal action cannot avoid measurable negative impacts on migratory birds, EO 13186 directs the responsible agency to develop and implement, within two years, a Memorandum of Understanding with the USFWS that shall promote the conservation of migratory bird populations.

Bald and golden eagles are protected under the Bald and Golden Eagle Protection Act, which prohibits the “take” of bald or golden eagles in the United States. The Act defines “take” as “pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest, or disturb.” For purposes of these guidelines, “disturb” means “to agitate or bother a bald or golden eagle to a degree that causes, or is likely to cause: (1) injury to an eagle; (2) a decrease in its productivity by substantially interfering with normal breeding, feeding, or sheltering behavior; or (3) nest abandonment, by substantially interfering with normal breeding, feeding, or sheltering behavior” based on the best scientific information available. In addition to immediate impacts, this definition also covers impacts that result from human-induced alterations initiated around a previously used nest site during a time when eagles are not present, if, upon the eagle’s return, such alterations agitate or bother an eagle to a degree that interferes with or interrupts normal breeding, feeding, or sheltering habits, and causes injury, death, or nest abandonment.

3.6.2 Existing Conditions

A detailed description of the biological resources found at MacDill AFB is provided in the *Integrated Natural Resources Management Plan (INRMP)* (USAF, 2021). MacDill AFB’s INRMP has been approved by the state and Federal fish and wildlife agencies. Land use on MacDill AFB includes urban, light industrial, residential, or improved vacant land. The few undeveloped areas within the base boundaries have all experienced some degree of disturbance, such as ditching, clearing, or the encroachment of exotic vegetation.

Wildlife species identified in MacDill’s INRMP that are listed by Federal or state agencies as endangered or threatened and known to occur permanently or periodically, or have the potential to occur on the base are shown in Table 3.1. In 2018, the *Threatened and Endangered Species Study for MacDill AFB* identified the general locations of protected species at MacDill AFB. Gopher tortoise colonies are found in one areas where installation of the proposed sanitary sewer lines would occur (Figure 3.5). Gopher tortoise are a keystone species who’s burrows also create habitat for numerous commensal species such as the gopher frog, Florida mouse, Eastern diamondback

snake, and federally protected Eastern Indigo snake among others. Management and protection of gopher tortoise habitat must be considered during project planning and implementation. In addition, numerous other state and/or federally protected avian species are routinely observed in areas identified for the Proposed Action including roseate spoonbill, little blue heron, Florida burrowing owl, and the federally protected wood stork. The American bald eagle is also commonly seen soaring and hunting around the western portion of the airfield, although the two known active bald eagle nests are more than a mile from any proposed construction activities.

TABLE 3.1

Summary of Protected Species Occurring and Potentially Occurring At MacDill AFB

Common name	Scientific Name	Status	
		Federal	State
Reptile/Amphibians			
American alligator **	<i>Alligator mississippiensis</i>	T (SA)	T (SA)C
American crocodile	<i>Crocodylus acutus</i>	T	T
Atlantic loggerhead turtle	<i>Caretta caretta</i>	T	T
Atlantic Green turtle	<i>Chelonia mydas mydas</i>	E	E
Kemp's Ridley turtle	<i>Lepidochelys kempii</i>	E	E
Leatherback turtle	<i>Dermochelys coriacea</i>	E	E
Hawksbill turtle	<i>Eretmochelys imbricata</i>	E	E
Eastern Indigo snake	<i>Drymarchon corais couperi</i>	T	T
Eastern Diamondback snake**	<i>Crotalus adamanteus</i>	UR	-
Gopher tortoise**	<i>Gopherus polyphemus</i>	C	T
Gopher frog**	<i>Rana capito</i>	UR	-
Florida pine snake	<i>Pituophis melanoleucus mugitus</i>	UR	T
Short-tailed snake	<i>Stilosoma extenuatum</i>	UR	T

Common name	Scientific Name	Status	
		Federal	State
Birds			
Scott's seaside sparrow	<i>Ammodramus martimus peninsulae</i>	-	T
Florida scrub jay	<i>Aphelocoma coerulescens</i>	T	T
Florida Burrowing owl **	<i>Athene cunicularia</i>	-	T
Red Knot**	<i>Calidris canutus rufa</i>	T	T
Piping plover **	<i>Charadrius melodus</i>	T	T
Little blue heron **	<i>Egretta caerulea</i>	-	T
Reddish egret **	<i>Egretta rufescens</i>	-	T
Tricolored heron **	<i>Egretta tricolor</i>	-	T
Southeastern American kestrel **	<i>Falco sparverius paulus</i>	-	T
Florida sandhill crane **	<i>Grus canadensis pratensis</i>	-	T
American oystercatcher **	<i>Haematopus palliatus</i>	-	T
Bald Eagle **	<i>Haliaeetus leucocephalus</i>	DL BGEPA	T
Eastern black rail	<i>Laterallus jamaicensis jamaicensis</i>	T	-
Wood stork **	<i>Mycteria americana</i>	E	E
Red cockaded woodpecker	<i>Picoides borealis</i>	E	T
Roseate spoonbill **	<i>Platalea ajaja</i>	-	T
Least tern **	<i>Sterna antillarum</i>	-	T
Black skimmer **	<i>Rynchops niger</i>	-	T
Mammals			
Florida mouse	<i>Podomys floridanus</i>	UR	-
Tricolored bat	<i>Perimyotis subflavus</i>	P	-
West Indian manatee **	<i>Trichechus manatus</i>	E	E
Fish			
Giant manta ray	<i>Manta birostris</i>	T	-
Gulf sturgeon	<i>Acipenser oxyrinchus desotoi</i>	T	T
Smalltooth sawfish	<i>Pristis pectinata</i>	E	E

T=Threatened, T(SA)=Threatened/Similarity of Appearance, E= Endangered, , C2=Candidate for listing, UR = Under Review, P = Petitioned

Source: Integrated Natural Resources Management Plan, MacDill AFB, Florida, 2021

** Species has been documented at MacDill AFB

3.6.3 Environmental Consequences

3.6.3.1 Preferred Alternative

The Proposed Action would require disturbance of grass and other vegetation along the route for the new wastewater utilities and equipment laydown areas. The disturbance would be temporary and construction areas would be stabilized with sod or hydroseeding upon completion of the work, so no long-term impacts to vegetation are anticipated.

The Proposed Action would not cut through any natural wetland areas, but would cross three man-made drainage ditches which have wetlands along their ditch banks. At all ditch crossing locations, the new sanitary sewer lines would be installed beneath the ditch using directional boring to avoid any impacts to wetlands.

Construction for the new sanitary sewer system does create a potential for short-term impacts to wildlife, including threatened and endangered species. Construction activities would pass through some areas of relatively good habitat including the open airfield and the wooded areas north of the control tower and east of the Contractor Village area. The potential for incidental animal mortality exists and with implementation of proposed protective actions the potential is considered relatively low, and any losses would have negligible effect on the local and regional animal population levels. Noise generated during the installation of sanitary sewer lines and associated equipment would most likely disturb wildlife; however, most species have adapted well to elevated noise levels in the vicinity of the airfield and runway, where much of the work would occur.

The MacDill airfield provides habitat for two state-listed ground dwelling species; the Florida burrowing owl (*Athene cunicularia*) and the gopher tortoise (*Gopherus polyphemus*). Both of these species dig burrows for refuge and these burrows often support other wildlife, much of which are also state or federally protected species such as the gopher frog, Florida pine snake, short-tailed snake, eastern indigo snake, and the Florida mouse. Data collected during the most recent threatened and endangered species survey in 2018 identified areas of gopher tortoise habitat on the east and west sides of the runway. Burrowing owl habitat has historically only been found east of the runway, although this species is known to move around the airfield regularly. Figures 3.4 and 3.5 below show the locations where gopher tortoise and burrowing owl burrows, respectively, were found during the 2018 survey, along with the route for sanitary sewer expansion described for the Proposed Action.

As indicated in Figure 3.4, portions of the proposed wastewater collection system would be installed within habitat utilized by gopher tortoise. Prior to initiating construction activities, a project-specific survey of all designated work areas would be accomplished to determine if any gopher tortoise burrows are located within areas proposed for construction, equipment and materials laydown areas, or construction vehicle travel routes. Any burrows identified within the vicinity of the construction work, laydown, or traffic areas would be flagged with surveyor pin

flags or three foot wooden stakes with highly visible surveyor flagging. Marking all burrows in the vicinity to work areas would help remind vehicle and heavy equipment operators of the presence of the tortoise burrows in case they are required to drive beyond planned travel routes or construction zones. Survey data collected during the design stage of the project would be used to adjust the route of wastewater lines, where practical, to avoid gopher tortoise.

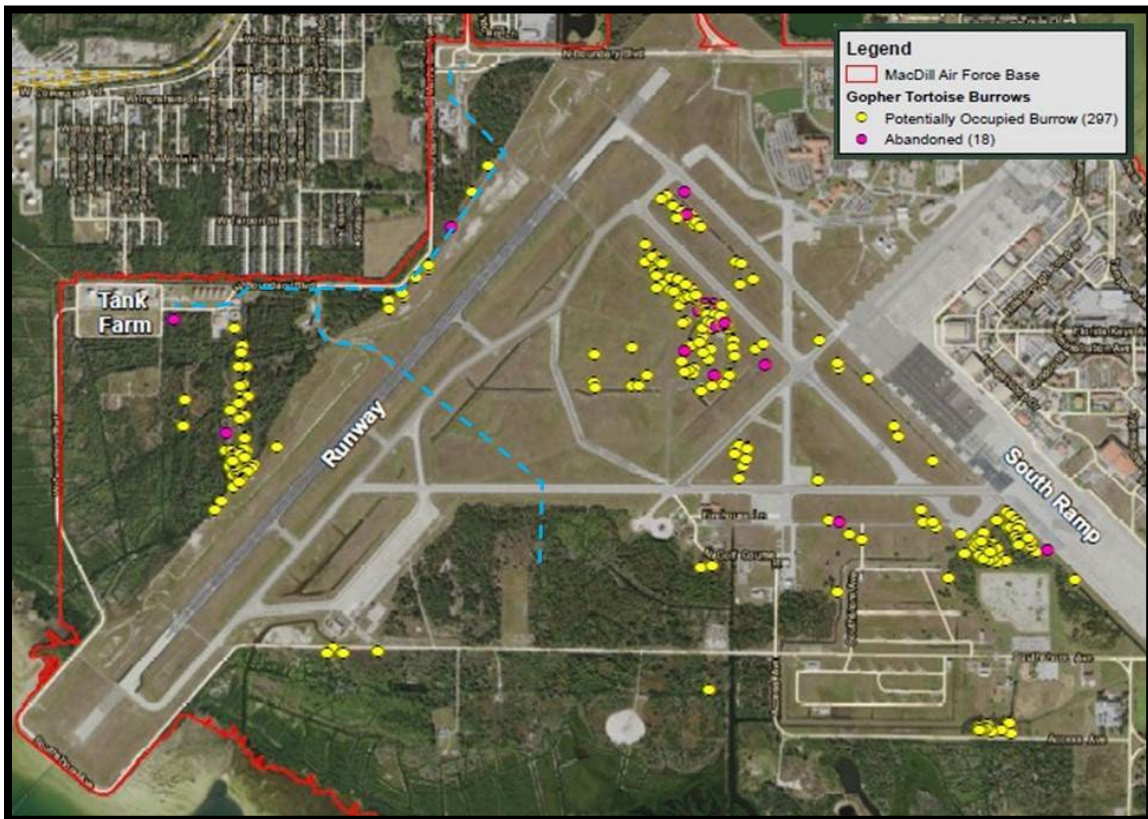


Figure 3.5: Location of gopher tortoise burrows with the utility route for the Preferred Alternative shown in blue dashed line.



Figure 3.6: Location of Florida burrowing owl burrows with the utility route for the Preferred Alternative shown in blue dashed line.

In Florida, the gopher tortoise is federally listed as a candidate species and is classified as State Threatened under state law, primarily due to rapidly diminishing habitat. At MacDill AFB, gopher tortoise are managed under the Gopher Tortoise Candidate Conservation Agreement (GTCCA), a cooperative effort between federal, state and non-governmental agencies to proactively implement gopher tortoise conservation measures. The best option for management of gopher tortoise is to leave them undisturbed whenever possible. To this end, whenever practical, construction activities around identified burrows would be avoided. In accordance with Florida Fish & Wildlife Conservation Commission (FWC) Gopher Tortoise Permitting Guidelines, buffers would be established around each burrow to keep vehicle traffic at least 25 feet from burrow entrances. In addition, silt fence or construction fence would be used to clearly demarcate and protect gopher tortoise habitats. Silt fence or construction fence would be installed roughly parallel to the construction/work area, bending toward the burrows at either end but leaving full access (roughly 180 degrees) to the burrow. Whenever possible, care would be taken to not place silt fence across any clearly visible pathways or trails that the tortoise may routinely follow when accessing the

burrow. If avoidance of a gopher tortoise burrow is not possible and the burrow would be disturbed by construction activities, then the affected animal would be captured and relocated to an existing on-base colony prior to initiating construction work as allowed under the GTCCA. The existing gopher tortoise recipient site is located less than 0.5 miles west of the affected gopher tortoise habitat on the airfield. The recipient site is an existing, robust colony of tortoises in an area of high quality gopher tortoise habitat. The site is separated from the airfield by a large drainage ditch, creating a barrier for tortoises that may try to return “home” (and into harms way).

The eastern indigo snake, often considered a commensal species to the gopher tortoise, could also be present around the work site. The eastern indigo snake is designated as Threatened by the USFWS. To date, the eastern indigo snake has not been found within the installation boundaries, but due to the favorable habitat adjacent to the work site, the potential for encounter does exist.

Prior to initiating construction activities for the project, site workers and supervisors would be briefed on the potential for interaction with gopher tortoise and eastern indigo snake and workers would be advised on the protection that these species are afforded. Construction workers would be provided with an information flyer on how to identify eastern indigo snakes and would be instructed to stop all work if eastern indigo snake or gopher tortoise are observed within construction areas.

Avian species, such as the federally-protected Wood stork (*Mycteria americana*), commonly forage in open areas of freshwater and estuarine wetlands, shallow tidal pools, or creeks and streams. Wood storks have been observed historically at MacDill AFB and construction activities would be accomplished in areas adjacent to drainage ditches where Wood storks could forage. These drainage canals are also utilized as foraging areas by other avian species including Florida species of special concern such as snowy egret, white ibis, tricolored heron, roseate spoonbill, little blue heron, and great blue heron. Project plans call for the use of directional boring to install the wastewater lines beneath drainage ditches, as well as the runway, taxiways, and any roadways to avoid impacts to this infrastructure. The use of directional boring should eliminate the potential for direct impact to drainage ditches and habitat used for foraging by wading birds. All of these avian species are highly mobile and it is reasonable to expect that they would move away from the work zone as work begins. There are miles of drainage canal and water bodies on MacDill AFB, and the temporary impact to this habitat due to nearby construction work is considered insignificant.

The burrowing owl is not federally listed, but is classified as State Threatened by the FWC and is protected under the Migratory Bird Treaty Act. As indicated in Figure 3.5, burrowing owl burrows have not been identified near areas proposed for construction; however, the owls do move around the airfield routinely. During the project design process, a project-specific survey of proposed utility corridors, equipment laydown areas, and vehicle travel routes would be conducted to determine if any burrowing owl burrows have been established within the project footprint. If nests/burrows are identified within areas affected by construction activities, project plans would be modified to avoid each burrow and maintain at least a 33-foot buffer around any burrow entrance. To help visualize and maintain the 33-foot buffer around active owl burrows, a visual barrier consisting of four PVC poles and highly visible string or rope would be constructed around any borrows near construction areas. This is a mitigation strategy recommended by the FWC and is preferred over the use of silt fence as a barrier because it offers the highest level of visibility for the owls and does not clutter or confuse their sightlines.

In accordance with Section 7(a)(2) of the Endangered Species Act of 1973, consultation with the USFWS was initiated to seek concurrence of the Air Force's determination of effect on USFWS resources. The Air Force determined that installation of the proposed below ground wastewater collection system may affect but is not likely to adversely affect the wood stork and eastern indigo snake, and would have no effect on any other federally listed species in the area of potential effect. The USFWS concurred with the Air Force determination that the Proposed Action may affect, but is not likely to adversely affect the eastern indigo snake and wood stork. The USFWS offered no feedback on the Air Force determination of no effect on other federally listed species. Correspondence with the USFWS is included in Appendix B. Likewise, consultation with the FWC was accomplished to evaluate the potential for impact to state-listed species, primarily the gopher tortoise. Through consultation with FWC, several best management practices were developed, as well as, mitigation strategies to avoid potential impact to state-listed species. These protective measures include: surveying project areas during project design; adjusting project boundaries to avoid conflict with species/burrows; use of directional boring to avoid construction in ditches; establishing a 25-foot buffer around any gopher tortoise burrows; use of silt fence to mark and protect tortoise burrows near construction areas; providing an 'awareness briefing' to construction workers; and relocating gopher tortoises (per GTCCA) when conflicts cannot be avoided.

With implementation of the species protection strategies described above, adverse impacts to biological resources are not expected to result from project activities.

3.6.3.2 Northern Route Alternative

The potential for impacts to wildlife, included threatened and endangered species, under the Northern Route Alternative, are nearly identical to those described for the Proposed Action. Connecting the western portion of the installation to the sanitary sewer system via the alternative route along North Boundary Boulevard would avoid crossing the runway and two man-made drainage ditches, but would still involve construction activities within gopher tortoise habitat and at least one drainage ditch crossing. With implementation of the species protection strategies described for the Proposed Action, adverse impacts to biological resources are not expected.

3.6.3.3 No Action Alternative

No impacts to wildlife, including threatened and endangered species would occur under the No Action Alternative.

3.7 CULTURAL RESOURCES

3.7.1 Definition of the Resource

Cultural resources is an umbrella term for many heritage-related resources, including prehistoric and historic sites, buildings, structures, districts, or any other physical evidence of human activity considered important to a culture, a subculture, or a community for scientific, traditional, religious, or any other reason. Depending on the condition and historic use, such resources might provide insight into the cultural practices of previous civilizations, or they might retain cultural and religious significance to modern groups.

Several Federal laws and regulations govern protection of cultural resources, including the National Historic Preservation Act (NHPA) of 1966, the Archeological and Historic Preservation Act (1974), the American Indian Religious Freedom Act (1978), the Archaeological Resources Protection Act (1979), and the Native American Graves Protection and Repatriation Act (1990). MacDill AFB is required to comply with USAF regulations and instructions regarding cultural

resources, including AFI 32-7065, Cultural Resources Management and MacDill AFB's Integrated Cultural Resources Management Plan (MacDill AFB 2021). Consultation with Federally-recognized tribes is required under the laws listed previously; EO 13175, Consultation and Coordination with Indian Tribal Governments; Department of Defense Instruction 4710.02, DOD Interactions with Federally-Recognized Tribes; and AFI 90-2002, Air Force Interactions with Federally-Recognized Tribes. MacDill AFB regularly consults with four federally recognized tribes affiliated with the area: the Seminole Indian Tribe of Florida, the Miccosukee Indian Tribe; the Seminole Nation of Oklahoma, and the Muscogee (Creek) Nation.

The NHPA establishes criteria for assessing the significance of cultural resources. Resources that are listed or eligible for listing in the National Register of Historic Places (NRHP) are termed "historic properties." Under Section 110 of the NHPA, federal agencies are required to inventory resources under their purview and nominate those eligible to the NRHP. Section 106 of the NHPA requires federal agencies to assess the potential impact of their undertakings on historic properties in the area of potential effect (APE). USAF is consulting under Section 106 of the NHPA with the State Historic Preservation Officer (SHPO) and federally recognized tribes for the Proposed Action described in Section 2.1. As a part of the Section 106 process, USAF has defined the Undertaking as the Proposed Action, and defined the APE as the Proposed Action area which includes the footprints for demolition, construction, and renovation activities (Direct APE) and a 0.25-mile radius around demolished or newly constructed aboveground facilities and facilities undergoing exterior renovations (Indirect APE). Additional information on Section 106 consultation, including potential effects on historic properties identified as a part of the Section 106 process, are described in Sections 3.7.2 and 3.7.3.

Typically, cultural resources are subdivided into archaeological resources, architectural resources, or resources of traditional, cultural, or religious significance. Archaeological resources comprise areas where human activity has measurably altered the earth or deposits of physical remains are found (e.g., projectile points and bottles), but standing structures do not remain. Architectural resources include standing buildings, bridges, dams, other structures, and designed landscapes of historic or aesthetic significance. Generally, architectural resources must be more than 50 years old to warrant consideration for the NRHP. More recent structures might warrant protection if they are of exceptional importance or if they have the potential to gain significance in the future. Resources of traditional or religious significance can include archaeological resources, sacred sites,

structures, prominent topographic features, habitat, plants, animals, or minerals considered essential for the preservation of traditional culture.

3.7.2 Existing Conditions

There are two historic districts on base, the MacDill Field District and the Staff Officer's Quarters District (Figure 3.7).

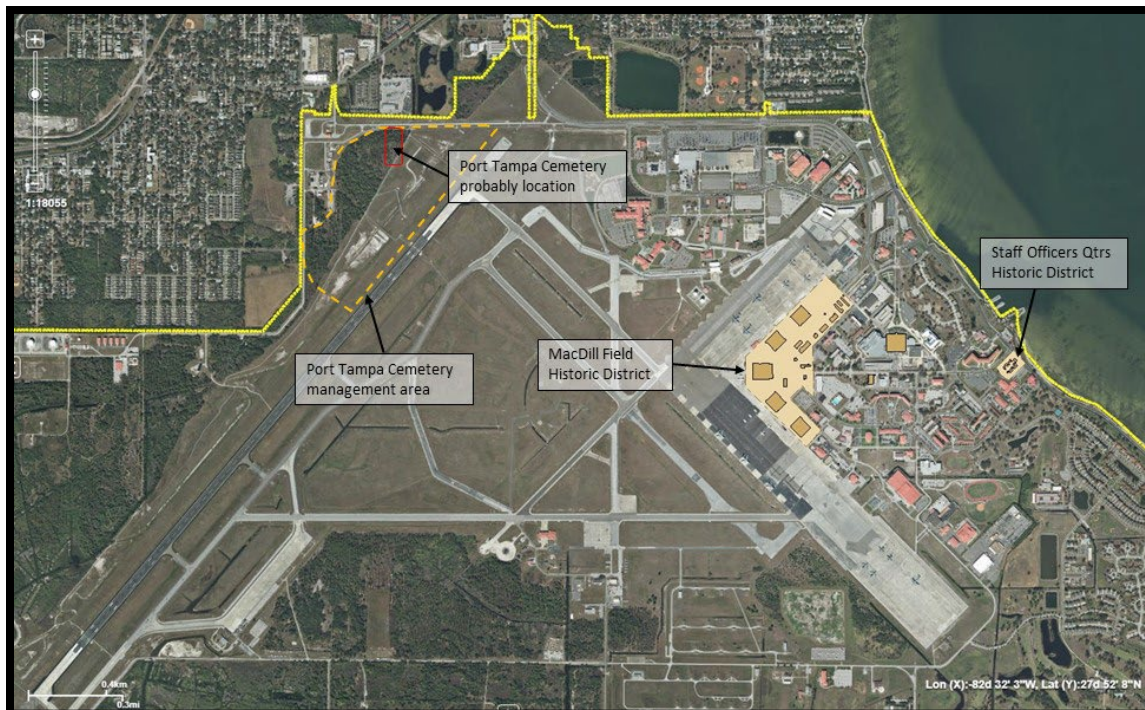


Figure 3.7: Location of MacDill's two historic districts shown in tan with buildings shown in brown

There are 47 known archaeological sites on base, located primarily in the less developed areas of the base in the eastern, southern, and western portions of the installation closer to the coastline. There are a few archaeological sites located near both the proposed action and the northern route alternative locations. Several historic facilities and archaeological sites are significant enough to be eligible for the National Register of Historic Places. Recently, documents indicating the presence of an early 20th century informal burial ground used predominantly by African American residents were discovered. The follow-on investigation identified subsurface anomalies that could be burial sites. The informal burial ground, identified as Port Tampa Cemetery in historic records, is located in the vicinity of the Northern Route alternative. Because the specific boundaries of the

Port Tampa Cemetery are not defined, a land management plan has been developed for the area around the burial ground to ensure construction activities do not result in inadvertent disturbance (Figure 3.6). Construction activities for the proposed action fall within the land management area identified for the Port Tampa Cemetery. The base consults with the State Historic Preservation Office (SHPO) and four Native American tribes regarding the potential effects of base actions on these resources.

3.7.3 Environmental Consequences

3.7.3.1 Preferred Alternative

The Preferred Alternative involves ground disturbance and, therefore, offers the potential for contact with archaeological sites. Previous archaeological surveys including a basewide survey completed between 2017 and 2019 have identified 47 archaeological sites throughout the installation, several of which are located west of the runway. The area of potential effect (APE) is defined as a 50-foot wide linear tract following the force main route outlined in Figure 2.1. The APE around the proposed lift stations would be larger due to increased ground disturbance required for installation of the structures, some of which would be above ground. Only one archeological site is located near the proposed route for the western sanitary sewer system, and with proper project planning MacDill can ensure that all ground disturbing activities remain outside a 25-meter buffer around this site. The site has been determined ineligible for the National Register of Historic Places.

As shown in Figure 3.7, a portion of the Preferred Alternative route is located within the Port Tampa Cemetery management area. Per the existing Land Management Requirements for the Port Tampa Cemetery Area, if the utility route cannot be adjusted to avoid construction activities within identified sensitive areas for this informal burial ground, then additional subsurface investigation of the proposed utility route must occur prior to construction. Additional subsurface investigation along the proposed construction route would ensure that construction activities would not inadvertently disturb burial sites associated with the Port Tampa Cemetery. If suspected archaeological resources are identified within the proposed construction corridor, construction activities would not occur in that area and the wastewater piping location would be changed.

Based on the comprehensive scope of recent archaeological surveys, it is unlikely that previously undocumented archaeological resources would be encountered during installation of the proposed force main piping and lift stations. In the unlikely event of an inadvertent discovery, all work in the vicinity of the discovery would stop and MacDill AFB would follow standard operating procedures described in our Integrated Cultural Resources Management Plan which includes prompt notification to the State Historic Preservation Office and the four tribes.

Regarding architectural historic resources, all of the facilities constructed between 1939 and 1992 on MacDill AFB have been surveyed to determine if they possess any cultural or architectural significance. The results of these surveys have been provided to the State Historic Preservation Office. There are no culturally significant buildings or historic districts within or adjacent to the proposed area of construction for the Preferred Alternative.

The Air Force has determined that no historic properties would be affected by implementation of the Proposed Action (i.e. either of the evaluated routes). The State Historic Preservation Office concurred with the Air Force finding that the proposed undertaking would have no effect on historic properties. Correspondence with them can be found in Appendix B. Likewise, consultation with the four Native American tribes that are historically connected with the land on MacDill AFB is being accomplished to gather their feedback on the proposed project. To date, no feedback from the tribes has been received. Documentation of tribal consultation is provided in Appendix B.

Consequently, no impacts cultural resources would result from the Preferred Alternative.

3.7.3.2 Northern Route Alternative

The Northern Route Alternative has an increased potential for contact with archaeological resources because the route crosses an archaeological site that is eligible for the National Register of Historic Places, and is adjacent to another archaeological site that is currently being evaluated for NRHP significance.

Impacts to archaeological sites would be avoided through the use of directional boring to install new force main piping. No surface excavation would occur within 25 meters of site boundaries, and utility piping would be installed 10 to 20 feet below the land surface to avoid any potential for disturbance of the upper soil horizons. The proposed construction activities in areas near the Port

Tampa Cemetery would occur within existing disturbed areas and roadway rights-of-way, so inadvertent impacts to this early 1900's informal burial ground would not be expected.

Consequently, no impacts to cultural resources would result from the Northern Route Alternative.

3.7.3.3 No Action Alternative

Under the No Action Alternative, no impacts to cultural resources would occur.

3.8 SAFETY AND OCCUPATIONAL HEALTH

3.8.1 Definition of the Resource

A safe environment is one in which there is no, or an optimally reduced, potential for death, serious bodily injury or illness, or property damage. This section addresses the well-being, safety, and health of members of the public, contractors, and USAF personnel during the various aspects of the Proposed Action.

Elements for an accident-prone situation or environment include the presence of the hazard itself together with the exposed (and possibly susceptible) population. The degree of exposure depends primarily on the proximity of the hazard to the population. Hazardous activities can include demolition, construction and training activities. The proper operation, maintenance, fueling, and repair of aircraft and equipment also carry important safety implications. Extremely noisy environments can also mask verbal or mechanical warning signals such as sirens, bells, or horns.

3.8.2 Existing Conditions

The proposed action would pose safety hazards to the workers similar to those associated with typical industrial construction projects, such as slip, trip, fall, heat stress, and machinery injuries. Construction is not expected to involve any unique hazards. Construction methods would comply with OSHA requirements to ensure the protection of workers and the general public during construction. The contractor implementing the proposed construction activities would be responsible for OSHA compliance.

The MacDill AFB Asbestos Management Plan identifies procedures for management and abatement of asbestos. Prior to renovation or demolition activities, asbestos sampling is performed and, if present, the asbestos is removed in accordance with applicable federal and state regulations.

There is no facility demolition proposed for expansion of the sanitary sewer system. According to MacDill utility records there is no Transit concrete piping in the vicinity of potential connection points for the sanitary sewer. Consequently, there is no potential for contact with asbestos with the project.

The Base Civil Engineer assumes that all structures constructed prior to 1978 possibly contain lead-based paint (LBP). When required, LBP abatement is accomplished in accordance with applicable federal and state regulations, and base procedures, prior to demolition activities to prevent any health hazards. It is highly unlikely that expansion of the sanitary sewer system would encounter LBP or involve management of LBP.

3.8.3 Environmental Consequences

3.8.3.1 Preferred Alternative

The proposed construction activities for the project would pose safety hazards to the workers similar to those associated with typical industrial construction projects, such as falls, slips, heat stress, and machinery injuries. Construction would not involve any unique hazards and all construction methods would comply with Occupational Safety and Health Administration (OSHA) requirements to ensure the protection of workers and the general public during construction. Diligent, but not controlling, governmental oversight of contractor activities would help assure OSHA compliance.

Contact with asbestos containing material or lead based paint would not be expected with this wastewater utility installation project.

The Preferred Alternative would not involve construction activities within active or unevaluated ERP sites. There would be no threat to life and health because construction activities would not occur within the boundaries of active ERP sites or unevaluated ERP sites. In addition, project plans would include appropriate measures for dealing with the inadvertent discovery of contaminated

media to protect workers from exposure. Consequently, no impacts to safety and occupational health would be incurred with implementation of the Preferred Alternative.

3.8.3.2 Northern Route Alternative

As with the Preferred Alternative, this alternative would pose safety hazards to the workers similar to those associated with typical industrial construction projects, such as falls, slips, heat stress, and machinery injuries. Construction would not involve any unique hazards and all construction methods would comply with OSHA requirements to ensure the protection of workers and the general public during construction.

Contact with asbestos containing material or lead based paint would not be expected under the Northern Route Alternative.

As with the Preferred Alternative, the Northern Route Alternative would involve construction activities in or near ERP sites; however, appropriate measures have been included in the project to reduce the potential for contact with contaminated media and to protect workers from exposure. None of the constituents of concern at the site represent an immediate threat to life and health. Consequently, no impacts to safety and occupational health would be incurred with implementation of the Northern Route Alternative.

3.8.3.3 No Action Alternative

No impacts on safety and occupational health would be incurred under the No Action Alternative.

3.9 AIRSPACE AND AIRFIELD OPERATIONS

3.9.1 Definition of the Resource

The airspace region of influence for MacDill AFB includes a 20-nautical-mile radius from the ground surface up to 10,000 feet above mean sea level. The Tampa Terminal Radar Approach Control (TRACON) provides radar monitoring and advisories within the region. No special use airspace exists within the region.

An airfield is a highly controlled, typically restricted access environment governed by specific requirements for the movement and operation of aircraft, support vehicles, and personnel. Airfield operations control what activities are permitted to occur within the airfield environment and how they can be conducted.

3.9.2 Existing Conditions

The MacDill AFB airfield infrastructure includes a pavement system comprised of the runway, paved overruns, parking/maintenance aprons, aircraft taxiways, and arm/disarm pad. The base's one runway, Runway 05/23, runs northeast to southwest with a parallel taxiway, Taxiway G. The runway is 11,421 feet long by 151 feet wide. Both ends of the runway have 1,000 foot long concrete touchdown zones with asphalt between them.

Multiple taxiways intersect the airfield to interconnect the north and south flight aprons with the active runway. The portions of the airfield that do not contain paved surfaces such as flight apron, taxiways, or runway, are generally large expanses of grass, weeds, and herbaceous ground cover that is maintained at a height of 7 to 14 inches in accordance with Air Force airfield regulations. The topography is generally flat, yielding clear lines of sight throughout the airfield.

Access to the airfield is restricted with only limited, controlled points of entry. On the airfield, vehicle movement and construction work is regulated and actively monitored by the Airfield Manager and the Control Tower. When working on or adjacent to the active runway constant radio communication with the Control Tower is required.

3.9.2.1 Bird-Aircraft Strike Hazard

Aircraft collision from birds and other wildlife annually cause millions of dollars in aircraft damage and may result in loss of aircraft and aircrews. The Federal Aviation Authority (FAA) Advisory Circular #150/5200 and AFI 91-212 *Bird/Wildlife Aircraft Strike Hazard Management Program* provide guidance for reducing the incidents of bird strikes in and around areas where flying operations occur. BASH Management Techniques establish provisions to disperse information on specific bird hazards and procedures for reporting hazardous bird activity. The design and construction of any facilities within the vicinity of the airfield must comply with certain restrictions

such as covering open water areas that may encourage food sources or bird foraging activity, and keeping grassed areas cut to regulation height.

3.9.3 Environmental Consequences

3.9.3.1 Preferred Alternative

Substantial impacts to airspace and airfield operations are not expected with the Preferred Alternative. The proposed construction work would not impact airspace or aircraft flight activity since all construction work would be accomplished at ground level or below and the use of cranes is not anticipated. The presence of construction vehicle and workers does slightly increase the potential for disturbance of avian species that may be loafing on the airfield; however, increased vigilance by the MacDill BASH team should mitigate any potential increase in strike hazard.

Extensive communication with 6th Operations Support Squadron (6 OSS) Airfield Operations department would be required prior to initiating any construction activities within the boundaries of the airfield. In addition, construction workers and vehicles would require escort by 6 OSS personnel, or an FGUA representative who possesses an airfield driver's license, when they are operating within the airfield environment. 6 OSS personnel or the approved airfield escorts that are monitoring construction activities would remain in direct communication with the MacDill Control Tower to ensure that construction activities/vehicles do not interfere with aircraft movement on the airfield or result in a runway incursion.

3.9.3.2 Northern Route Alternative

Impacts to airspace and airfield operations associated with the Northern Route Alternative would be similar those described for the Preferred Alternative.

3.9.3.3 No Action Alternative

There would be no impacts to airspace and airfield operations under the No Action Alternative.

3.10 REASONABLY FORESEEABLE FUTURE PROJECTS / CUMULATIVE EFFECTS

Table 3-2 is a summary of the potential environmental impacts of the Proposed Action, the Northern Route Alternative, and the No Action Alternative.

TABLE 3-2

Comparison of Environmental Consequences

Environmental Resources	Alternative A - Proposed Action	Alternative B - Northern Route	Alternative C - No Action Alternative
Air Quality	Short-term - <i>Minor Adverse</i> Long-term - No Impact Cumulative - No Impact	Short-term - <i>Minor Adverse</i> Long-term - No Impact Cumulative - No Impact	Short-term - No Impact Long-term - No Impact Cumulative - No Impact
Noise	Short-term - <i>Minor Adverse</i> Long-term - No Impact Cumulative - No Impact	Short-term - <i>Minor Adverse</i> Long-term - No Impact Cumulative - No Impact	Short-term - No Impact Long-term - No Impact Cumulative - No Impact
Hazardous Materials/Wastes/Stored Fuels	Short-term - <i>Minor Adverse</i> Long-term - No Impact Cumulative - No Impact	Short-term - <i>Minor Adverse</i> Long-term - No Impact Cumulative - No Impact	Short-term - No Impact Long-term - No Impact Cumulative - No Impact
Water Resources	Short-term - <i>Minor Adverse</i> Long-term - No Impact Cumulative - No Impact	Short-term - <i>Minor Adverse</i> Long-term - No Impact Cumulative - No Impact	Short-term - No Impact Long-term - No Impact Cumulative - No Impact
Floodplains	Short-term - No Impact Long-term - No Impact Cumulative - No Impact	Short-term - No Impact Long-term - No Impact Cumulative - No Impact	Short-term - No Impact Long-term - No Impact Cumulative - No Impact
Cultural Resources	Short-term - No Impact Long-term - No Impact Cumulative - No Impact	Short-term - No Impact Long-term - No Impact Cumulative - No Impact	Short-term - No Impact Long-term - No Impact Cumulative - No Impact
Transportation	Short-term - No Impact Long-term - No Impact Cumulative - No Impact	Short-term - No Impact Long-term - No Impact Cumulative - No Impact	Short-term - No Impact Long-term - No Impact Cumulative - No Impact
Safety and Occupational Health	Short-term - <i>Minor Adverse</i> Long-term - No Impact Cumulative - No Impact	Short-term - <i>Minor Adverse</i> Long-term - No Impact Cumulative - No Impact	Short-term - No Impact Long-term - No Impact Cumulative - No Impact
Socioeconomics	Short-term - <i>Minor Beneficial</i> Long-term - <i>Minor Beneficial</i> Cumulative - <i>Minor Beneficial</i>	Short-term - <i>Minor Beneficial</i> Long-term - <i>Minor Beneficial</i> Cumulative - <i>Minor Beneficial</i>	Short-term - No impact Long-term - No Impact Cumulative - No Impact
Biological Resources	Short-term - <i>Minor Adverse</i> Long-term - No Impact Cumulative - No Impact	Short-term - <i>Minor Adverse</i> Long-term - No Impact Cumulative - No Impact	Short-term - No Impact Long-term - No Impact Cumulative - No Impact
Geology and Soils	Short-term - No Impact Long-term - No Impact Cumulative - No Impact	Short-term - No Impact Long-term - No Impact Cumulative - No Impact	Short-term - No Impact Long-term - No Impact Cumulative - No Impact
Environmental Justice	Short-term - No Impact Long-term - No Impact Cumulative - No Impact	Short-term - No Impact Long-term - No Impact Cumulative - No Impact	Short-term - No Impact Long-term - No Impact Cumulative - No Impact

Environmental Resources	Alternative A - Proposed Action	Alternative B - Northern Route	Alternative C - No Action Alternative
Airspace and Airfield Operations	Short-term - No Impact Long-term - No Impact Cumulative - No Impact	Short-term - No Impact Long-term - No Impact Cumulative - No Impact	Short-term - No Impact Long-term - No Impact Cumulative - No Impact

As indicated in Table 3-2, the Proposed Action, when examining it as a portion of the total proposed and/or ongoing construction projects on MacDill AFB, would result in minor beneficial cumulative impacts to socioeconomics, due to a less than one percent increase in the annual expenditures MacDill AFB provides to the local economy.

When examining it as a portion of the total proposed and/or ongoing construction projects on MacDill AFB, the Proposed Action would have no significant cumulative impacts to air quality, noise, waste management, water resources, floodplains, transportation, safety and occupational health, biological resources, geology and soils, cultural resources, environmental justice, or airspace and airfield operations, as outlined in Table 3-2.

4.0 CONCLUSIONS

Based upon the analyses presented in this environmental assessment, the Proposed Action alternative would not have a significant affect upon the quality of the human environment.

5.0 MANAGEMENT REQUIREMENTS

5.1 AIR QUALITY

Use reasonable precautions to control the emissions of unconfined particulate matter during construction activities in accordance with Florida Administrative Code (FAC) Rule 62-296. Ensure that all hazardous materials used during construction comply with the MacDill AFB Hazardous Materials Management Program’s requirements for low volatile organic compound content.

5.2 HAZARDOUS MATERIALS/WASTES

Ensure hazardous materials are approved and tracked through MacDill AFB's Hazardous Materials Management Program. Coordinate characterization and disposal of any hazardous or special waste with MacDill AFB's Environmental Compliance Program. Coordinate with MacDill AFB's Pollution Prevention Program to ensure recycling of demolition wastes, if possible. Ensure that any soil removed from active hazardous waste or contaminated environmental restoration sites are tested for contaminants of concern and, if contaminated, properly disposed.

5.3 WATER RESOURCES

Submit appropriate water quality permit applications for active construction sites and post-construction storm water management systems. Ensure BMPs, such as silt screens and placement of hay bales, are employed during construction to prevent erosion and storm water violations during all construction activities. Ensure that the new construction complies with all applicable water and energy conservation requirements.

5.4 SAFETY AND OCCUPATIONAL HEALTH

Ensure construction activities comply with OSHA standards or more stringent standards if applicable. Ensure that a site specific health and safety plan is prepared prior to initiating construction within active hazardous waste clean-up sites or contaminated environmental restoration sites and ensure that all workers completing excavation or dirt moving activities in this area have 40-hour HAZWOPER training and the annual 8-hour refresher course.

5.5 BIOLOGICAL RESOURCES

Ensure that any ground surface area disturbed during construction are re-seeded or revegetated with native flora. Proposed areas of construction, equipment and materials laydown areas, and construction vehicle travel corridors shall be surveyed for the presence of gopher tortoise and burrowing owl burrows prior to beginning construction activities. Any burrows identified within work zones shall have a buffer established around them (25 feet from a tortoise burrow and 33 feet from an owl borrow) using survey flagging or construction fencing to help reduce potential for impacts to these species from construction activities and construction traffic. Construction workers

shall be briefed on the potential for contact with federal and state protected species, how to identify these species, and the added protection that these species are afforded.

6.0 PERSONS CONTACTED

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8.0 REFERENCES

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APPENDIX A

CZMA CONSISTENCY STATEMENT

CONSISTENCY DETERMINATION

Coastal Zone Management Act (CZMA) section 307 provides that federal agency activities shall be carried out in a manner which is consistent to the maximum extent practicable with the enforceable policies of approved state management programs. Section 307 applies to federal agency activity in a state’s coastal zone and also to federal agency activity outside the coastal zone if the activity affects a land or water use in or near natural resources of the coastal zone. Federal agency activity includes activity performed by a federal agency, approved by a federal agency, or for which a federal agency provides financial assistance. Such activity, whether direct, indirect, or cumulative, must be demonstrated to be consistent with the enforceable policies of the state’s coastal management program, unless full consistency is otherwise prohibited by federal law (per 15 CFR part 930.32, “consistent to the maximum extent practicable”).

The State of Florida developed the Florida Coastal Management Program (FCMP), which was approved by the National Oceanic and Atmospheric Administration in 1981. The FCMP consists of a network of 24 Florida statutes, administered by multiple state agencies and water management districts. The FCMP includes enforceable policies that ensure the wise use and protection of the state’s water, cultural, historic, and biological resources; minimize the state’s vulnerability to coastal hazards; ensure compliance with the state’s growth management laws; protect the state transportation system; and protect the state’s proprietary interest as the owner of sovereignty submerged lands.

This document provides the State of Florida with the U.S. Air Force’s (USAF’s) Consistency Determination under the CZMA for the Proposed Action as analyzed in the accompanying Environmental Assessment (EA). This statement examines the potential environmental consequences of the Proposed Action and ascertains the extent to which the Proposed Action would be consistent with the objectives and enforceable policies of the FCMP as presented in the 2018 FCMP Guide (Florida Department of Environmental Protection 2018).

Upon review of the FCMP, it was determined which policies may be applicable to the Proposed Action and then an “effects test” was conducted to determine whether the Proposed Action would have a reasonably foreseeable direct, indirect, or cumulative effect on the state’s coastal uses or resources. After conducting the effects test, the USAF determined whether the Proposed Action would result in reasonably foreseeable direct, indirect, or cumulative effects on Florida’s coastal uses or resources.

Of the Florida Statutory Authorities included in the FCMP, the potential for impacts in the following areas are addressed in the EA: historic preservation (Chapter 267), water resources (Chapter 373), pollutant discharge prevention and removal (Chapter 376), fish and wildlife conservation (Chapter 379), environmental control (Chapter 403), and soil and water conservation (Chapter 582).

This consistency determination statement discusses how the Proposed Action may meet the FCMP objectives.

Table B-1. Florida Coastal Management Program Policy Review

Florida Statute	Legal Scope	Consistency Evaluation
Chapter 161: Beach and Shore Preservation Program	Authorizes the Bureau of Beaches and Coastal Systems within Department of Environmental Protection to regulate construction on or seaward of the state’s beaches.	The Proposed Action would not include construction within or adjacent to any beach or shoreline and would not affect beach and shore management, specifically as it pertains to: <ul style="list-style-type: none"> • Coastal Construction Permit Program • Coastal Construction Control Line Program • Coastal Zone Protection

Florida Statute	Legal Scope	Consistency Evaluation
Chapter 163: Growth Policy; County and Municipal Planning; Land Development Regulation	Chapter 163, Part II 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.	The Proposed Action would not affect local (municipal or county) government comprehensive plans and would not affect public health, safety, comfort, good order, appearance, convenience, law enforcement, fire prevention, general welfare, concentration of population on the land, public facilities and services, or natural resources.
Chapter 186: State and Regional Planning	Details state-level planning requirements. Requires the development of special statewide plans governing water use, land development, and transportation.	The Proposed Action is consistent with state statutes and would not affect Florida state- or regional-level planning requirements or have a negative effect on state plans for water use, land development, or transportation.
Chapter 252: Emergency Management	Provides for planning and implementation of the state’s response to, efforts to recover from, and mitigation of natural and man- made disasters.	The Proposed Action would not have an effect on the ability of the state to respond to or recover from natural or man-made disasters and would not affect evacuation procedures.
Chapter 253: State 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.	No state lands would be disturbed during the construction or operations of the proposed facilities. Therefore, the Proposed Action is consistent with the state’s administration of public lands.
Chapter 258: State Parks and Preserves	Addresses administration and management of state parks and preserves.	The Proposed Action would not impact the administration or management of state parks and preserves.
Chapter 259: Land Acquisitions for Conservation or Recreation	Authorizes acquisition of environmentally endangered lands and outdoor recreation lands.	The Proposed Action would not have an effect on the acquisition of environmentally endangered and outdoor recreation lands.
Chapter 260: Florida Greenways and Trails Act	Authorizes acquisition of land, planning, and management of a statewide system of greenways and trails for recreational and conservation purposes.	The Proposed Action would not have an impact on the acquisition of land, planning or management of the statewide greenways and trails system.
Chapter 267: Historical Resources	Addresses management and preservation of the state’s archaeological and historical resources.	<p>Potential impacts to cultural and historical resources are evaluated in Section 3.7 of the EA. The Florida State Historic Preservation Office concurred on January 13, 2022, with MacDill AFB’s finding that the action is “unlikely to adversely affect historic properties listed, or eligible for listing, in the National Register of Historic Places, or otherwise of historical, architectural, or archaeological value within the area of potential effect.”</p> <p>Therefore, the Proposed Action would be consistent with the management and preservation of the state’s archaeological and historical resources.</p>
Chapter 288: Commercial Development and Capital Improvements	Promotes and develops general business, trade and tourism components of the state economy.	The Proposed Action would not have significant adverse effects on any key Florida industries or economic diversification efforts. There would be a slight positive impact to the local economy associated with the construction activity.

Florida Statute	Legal Scope	Consistency Evaluation
Chapter 334: Transportation Administration	Addresses the state’s policy concerning transportation administration.	The Proposed Action would not affect the state’s administration of transportation.
Chapter 339: Transportation Finance and Planning	Addresses the finance and planning needs of the state’s transportation system.	The Proposed Action would not affect the finance and planning needs of the state’s transportation system.
Chapter 373: Water Resources	This statute addresses sustainable water management; the conservation of surface and ground waters for full beneficial use; the preservation of natural resources, fish, and wildlife; protecting public land; and promoting the health and general welfare of Floridians. The state’s policy manages and conserves water and related natural resources by determining whether activities will unreasonably consume water; degrade water quality; or adversely affect environmental values (such as protected species habitat, recreational pursuits, and marine productivity).	<p>The Proposed Action would be conducted in a manner consistent with Chapter 373. Potential impacts on water resources are evaluated in Sections 3.4 and 3.5 of the EA. The Proposed Action would not unreasonably consume water, degrade water quality, or adversely affect environmental values. The Proposed Action is anticipated to improve groundwater quality since it would remove several existing lift stations from service. There are no wetlands impacted within or adjacent to the project area where facility development would occur. Potential impacts on nearby surface waters from sedimentation associated with construction activities would be minimized by the use of specialized construction techniques (i.e., Horizontal Directional Drilling), appropriate best management practices (BMPs), and all applicable regulatory requirements and stormwater permits (e.g., Environmental Resources Permit) would be obtained prior to any construction activities.</p> <p>The Proposed Action would be fully consistent with Florida’s Water Resources policy. Therefore, the Proposed Action would be consistent with the state’s statutes and regulations regarding water resources.</p>
Chapter 376: Pollution Discharge Prevention and Removal	<p>This statute provides a framework for the protection of the state’s coastline from spills, discharges, and releases of pollutants. The discharge of pollutants into or upon any coastal waters, estuaries, tidal flats, beaches, and lands adjoining the seacoast of the state is prohibited.</p> <p>The statute:</p> <ul style="list-style-type: none"> • Provides for hazards & threats of danger and damages resulting from any pollutant discharge to be evaluated. • Requires the prompt containment and removal of pollution; provides penalties for violations. • Ensures the prompt payment of reasonable damages from a discharge. 	<p>Management of hazardous materials and wastes is addressed in Section 3.3 of the EA. All required permits would be procured for the Proposed Action, and established procedures for transport, storage, and handling of hazardous materials would be followed. USAF does not anticipate the discharge of any pollutants upon surface or ground waters. In the event of a spill, a written Spill Prevention, Control, and Countermeasure Plan would be followed. BMPs would be incorporated to avoid impacts to water quality. The Proposed Action would be fully consistent with Florida’s Pollutant Discharge Prevention and Removal policy. Therefore, the Proposed Action would be consistent with the state’s statutes regarding the transfer, storage or transportation of pollutants.</p>

Florida Statute	Legal Scope	Consistency Evaluation
Chapter 377: Energy Resources	Addresses regulation, planning and development of oil and gas resources of the state.	The Proposed Action would not affect oil and gas resources of the state.
Chapter 379: Fish and Wildlife Conservation	This statute establishes the framework for the management and protection of Florida’s wide diversity of fish and wildlife resources. It is Florida’s policy to conserve and wisely manage these resources. Particular attention is given to those species defined as being endangered or threatened.	<p>Potential impacts to fish and wildlife are evaluated in Section 3.6 of the EA. On February 16, 2022, USFWS concurred with MacDill AFB’s effect determination that the proposed action may affect but is not likely to adversely affect the wood stork and eastern indigo snake and that the Proposed Action would have no effect on any other federally listed species.</p> <p>Likewise, the EA determined that the Proposed Action would not result in a significant impact to state listed species. Therefore, the Proposed Action would be consistent with the state’s policies concerning the protection of fish and wildlife resources.</p>
Chapter 380: Land and Water Management	Establishes land and water management policies to guide and coordinate local decisions relating to growth and development.	The Proposed Action would not affect state management of land or water.
Chapter 381: Public Health, General Provisions	Establishes public policy concerning the state’s public health system.	The Proposed Action would not affect the state’s policy concerning the public health system.
Chapter 388: Mosquito Control	Addresses mosquito control efforts in the state.	The Proposed Action would not affect mosquito control efforts.

Florida Statute	Legal Scope	Consistency Evaluation
Chapter 403: Environmental Control	The statute establishes public policy concerning environmental control in the state. Those policies most relevant to the Proposed Action include air and water pollution, pollution prevention, and ecosystem management.	<p>The EA addresses the issues of protection of air quality (Section 3.1); conservation and protection of environmentally sensitive living resources and the protection of endangered or listed species (Section 3.6); solid, sanitary, and hazardous waste disposal (Section 3.3); protection of groundwater and surface water quality and quantity (Section 3.4); potable water supply (Section 3.4); and the protection of floodplains and wetlands (Section 3.5).</p> <p>Based on the evaluation, the Proposed Action would not have significant impacts on air quality, hazardous materials/wastes, floodplains or water quality.</p> <p>The Proposed Action would not significantly affect fish, wildlife, or critical habitats. Surface waters of the state would not be significantly affected by the project.</p> <p>The USAF has determined that the Proposed Action would be consistent to the maximum extent practicable with Florida’s Fish and Wildlife Conservation policy.</p> <p>Therefore, the Proposed Action would be consistent with the state’s statues concerning environmental control efforts.</p>
Chapter 553: Building Construction Standards	Provides a mechanism for the uniform adoption, updating, amendment, interpretation, and enforcement of a single, unified state building code, to be called the Florida Building Code. Obtain a permit from the appropriate enforcing agency.	The Proposed Action would be consistent with the state’s regulations and standards pertaining to building construction.
Chapter 582: Soil and Water Conservation	Provides for the control and prevention of soil erosion.	<p>The EA addresses the potential of the Proposed Action and alternatives to disturb soil and presents possible measures to prevent or minimize soil erosion in Section 3.4.</p> <p>Impacts to groundwater and surface water resources also are discussed in Section 3.4 of the EA.</p>
Chapter 597: Aquaculture	Establishes public policy concerning the cultivation of aquatic organisms.	The Proposed Action would not affect the state’s policy regarding aquaculture.

CONCLUSION

Based on the aforementioned, USAF finds implementation of the Proposed Action as presented in the EA is consistent with Florida’s CMP.

From: [State Clearinghouse](#)
To: [KIRKPATRICK, JASON W CTR USAF AMC 6 CES/CEIE](#)
Subject: [URL Verdict: Neutral][Non-DoD Source] FW: State Clearance Letter for FL202205109491C - Draft Environmental Assessment For Expansion Of Sanitary Sewer System Macdill AFB, Hillsborough County, Florida
Date: Wednesday, July 20, 2022 6:01:51 PM

Jason,

Forwarding the letter sent on July 1, 2022 to the incorrect email address.

Kae Craig

*Office of Intergovernmental Programs
Florida Dept. Environmental Protection
Ph: 850-717-9045
state.clearinghouse@dep.state.fl.us*

From: Stahl, Chris <Chris.Stahl@FloridaDEP.gov>
Sent: Friday, July 1, 2022 1:47 PM
To: Jason.Kirkpatrick.CTR@macdill.af.mil
Cc: State_Clearinghouse <State.Clearinghouse@dep.state.fl.us>
Subject: State Clearance Letter for FL202205109491C - Draft Environmental Assessment For Expansion Of Sanitary Sewer System Macdill AFB, Hillsborough County, Florida

July 1, 2022

Jason Kirkpatrick
United States Air Force
MacDill Air Force Base
8209 Hanger Loop Drive
MacDill AFB, Florida 33621-5502

RE: Department of Defense, U.S. Air Force, Draft Environmental Assessment for Expansion of Sanitary Sewer System Macdill AFB, Hillsborough County, Florida
SAI # FL202205109491C

Dear Jason:

Florida State Clearinghouse staff has reviewed the proposal under the following authorities: Presidential Executive Order 12372; § 403.061(42), Florida Statutes; the Coastal Zone Management Act, 16 U.S.C. §§ 1451-1464, as amended; and the National Environmental Policy Act, 42 U.S.C. §§ 4321-4347, as amended.

If prehistoric or historic artifacts, such as pottery or ceramics, projectile points, dugout canoes, metal implements, historic building materials, or any other physical remains that could be associated with

Native American, early European, or American settlement are encountered at any time within the project site area, the permitted project shall cease all activities involving subsurface disturbance in the vicinity of the discovery. The applicant shall contact the Florida Department of State, Division of Historical Resources, Compliance Review Section at (850)-245-6333. Project activities shall not resume without verbal and/or written authorization. In the event that unmarked human remains are encountered during permitted activities, all work shall stop immediately and the proper authorities notified in accordance with Section 872.05, Florida Statutes. If you have any questions, please contact Rachel Thompson, Historic Sites Specialist, by email at Rachel.Thompson@dos.myflorida.com, or by telephone at 850.245.6453 or 800.847.7278.

Based on the information submitted and minimal project impacts, the state has no objections to the subject project and, therefore, it is consistent with the Florida Coastal Management Program (FCMP). Thank you for the opportunity to review the proposed plan. If you have any questions or need further assistance, please don't hesitate to contact me at (850) 717-9076.

Sincerely,

Chris Stahl

Chris Stahl, Coordinator
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Chris.Stahl@floridadep.gov



APPENDIX B

AGENCY COORDINATION LETTERS AND COMMENTS

U.S. FISH & WILDLIFE CONSULTATION



**DEPARTMENT OF THE AIR FORCE
6TH AIR REFUELING WING (AMC)
MACDILL AIR FORCE BASE, FLORIDA**

MEMORANDUM FOR U.S. FISH AND WILDLIFE SERVICE (USFWS)
MS. ANNIE DZIERGOWSKI
7915 BAYMEADOWS WAY, SUITE 200
JACKSONVILLE, FL 32256

FROM: 6 CES/CEIE
7621 HILLSBOROUGH LOOP DRIVE
MACDILL AFB, FL 33261-5207

SUBJECT: Florida Government Utility Authority Sanitary Sewer Expansion at MacDill Air Force Base

1. The Florida Government Utility Authority (FGUA) intends to improve waste water collection system on MacDill Air Force Base by expanding the sanitary sewer system west of the runway. Facilities west of the runway are currently served by local septic systems. Extending the sanitary sewer west of the runway would be accomplished in multiple phases over several years. In total, the waste water improvement project would install approximately 12,900 linear feet of sanitary sewer force main and construct several lift stations. Upon completion of the new sanitary sewer system, the existing septic systems would be decommissioned and removed from service.
2. Two routes are being evaluated for extending the waste water collection system to the west. One route crosses the airfield and runway between the U.S. Army Reserve Aviation Support Facility and the Control Tower. The alternative route brings the new sanitary sewer lines around the north end of the runway along North Boundary Boulevard. The new waste water utility lines would primarily be installed through cut-and-cover trenching installation; however, directional boring would be utilized in select areas to avoid impacts to existing infrastructure such as the runway, roadways, and man-made drainage ditches. The proposed and alternative routes for expanding the sanitary sewer system to the west are presented in Figures 1 and 2, respectively.
3. In accordance with the Code of Federal Regulations, Title 32, Part 989 – Environmental Impact Analysis Process and the National Environmental Policy Act, the USAF is evaluating the potential environmental impacts of the project. We are preparing an Environmental Assessment to evaluate potential environmental impacts from the proposed utility repair work.
4. Gopher tortoises (*Gopherus polyphemus*) are currently a candidate species for listing by USFWS. Gopher tortoise are known to be present throughout the MacDill airfield and data collected during the most recent threatened and endangered species survey (2018) indicate that portions of the new waste water collection system would occur within gopher tortoise habitat (Figures 1). To best manage the protection of gopher tortoise, FGUA staff will work directly with the MacDill Environmental Office to ensure that proposed construction zones, equipment laydown/staging areas, and planned construction-vehicle movement routes would not directly impact gopher tortoise burrows or cause undue deterioration of gopher tortoise habitat. Where

practical, the project footprint can be adjusted during design to avoid any identified tortoise burrows, although it will be hard to completely avoid gopher tortoise habitat with this project. Prior to starting construction, a 25-foot buffer will be established around every active burrow using stakes and survey flagging to keep construction activities and traffic from damaging burrows. If the project footprint cannot be adjusted to avoid conflicts with tortoise burrows, the MacDill AFB Natural Resources management staff shall accomplish the capture and relocation of these tortoises in accordance with the 2012 Gopher Tortoise Candidate Conservation Agreement. After construction activities have begun, a potential for impacts to this species would still exist since tortoises may wander into a work zone as they forage daily. To mitigate the potential for impacts, construction workers would be briefed at the outset of construction on the potential for interaction with gopher tortoise and the legal protection afforded this species. If gopher tortoise are discovered in or immediately adjacent to areas of active construction, work on the site would stop until the installation Natural Resources Manager can evaluate the situation and remove the tortoise from harm's way.

5. The eastern indigo snake (*Drymarchon corais couperi*) can occur in suitable habitat throughout Florida and is considered a gopher tortoise commensal. The presence of gopher tortoise burrows suggests the potential for eastern indigo snake; although the grassy, maintained airfield is less than ideal habitat for the species. The eastern indigo snake has never been observed on the installation and is unlikely to be present in or near the construction area. None the less, construction personnel would be briefed on the potential to encounter, the appearance of, and the legal protection afforded the eastern indigo snake as part of the gopher tortoise briefing.

6. The Proposed Action would occur within a core foraging area for the wood stork (*Mycteria Americana*), and wood storks are regularly observed on MacDill AFB around water features, including drainage swales and ditches. Directional boring is proposed for utility installation in areas where the sanitary sewer lines cross drainage ditches. Consequently, no direct loss of foraging habitat would be expected to result from project construction. Indirect impacts could result when construction activities are conducted near drainage ditches or water bodies as the noise and movement of construction vehicles would likely disturb birds that may be foraging in these areas. However, wood stork are a highly mobile species and if they are inadvertently disrupted as a result of construction work, there are miles of drainage canals and surface water bodies on the installation that remain available to support wood storks. Given that the wood stork is highly mobile, they are expected to move away from construction activities, so the risk of injury or impact related to construction activities is considered negligible.

7. There are two active bald eagle nests (HL024 and HL982) on the installation (Figure 3). At the closest point of construction, nest HL024 is located roughly 1.2 miles east of the project footprint, and nest HL983 is located more than 2.1 miles northeast of project activities. Activity associated with utility installation work is not expected to impact the American Bald Eagle.

8. Historic wildlife survey data for protected species indicates that federally threatened and endangered (T&E) species may exist within or near the project footprint. Additional data collection and survey work would be accomplished during project design to reduce any potential for impacts to T&E species. The completion of additional survey work, adjustments to the

project design, and implementation of the project in the manner described above should dramatically reduce any potential for impact to federal T&E species. In accordance with Section 7(a)(2) of the Endangered Species Act of 1973, the USAF has determined that implementation of the project may affect but is not likely to adversely affect the wood stork and eastern indigo snake and would have no effect on any other federally listed species in the area of potential affect.

9. If you have any questions or require additional information on the Proposed Action, please contact Jason Kirkpatrick, 6 CES/CEIE at (813) 828-0459.

ANDREW W. RIDER, GS-12, DAF
Chief, Environmental Element

Attachments
Figures 1-3

FIGURES 1 THRU 3



Figure 2: General location of the alternative 'Northern Route' for the wastewater utility shown as blue dashed line in comparison to gopher tortoise burrows identified during the most recent (2018) threatened and endangered species survey.



United States Department of the Interior

FISH AND WILDLIFE SERVICE
Florida Ecological Services Field Office



FWS Log No. 2022-0001159

February 14, 2022

Andrew Rider
Environmental Element Chief
6 CES/CEIE
7621 Hillsborough Loop Drive
MacDill AFB, FL 33621-5207

Dear Mr. Rider:

Thank you for your email dated January 5, 2022 to the U.S. Fish and Wildlife Service (Service) regarding the construction of a new sanitary sewer system at MacDill Air Force Base (AFB). This new sanitary system provides additional capacity to facility currently on septic systems. The project will be implemented using a phased approach and existing septic systems will be decommissioned and removed from service. The project is currently in design phase and the Air Force (AF) has presented a preferred project area and an alternative project area. 6 CES/CEI Environmental Element determines that the proposed action or the alternative “may affect, but not likely to adversely affect” eastern indigo snake (*Drymarchon corais couperi*) and wood stork (*Mycteria americana*). The Service provides the following comments in accordance with Section 7 of the Endangered Species Act of 1973, as amended (16 U.S.C. *et seq.*).

Information submitted in the initial concurrence request indicates that the preferred project area impacts currently disturbed habitat within the MacDill AFB airfield, along North Boundary Road, and the Tanker Way Gate developed area, as well as several natural areas on the northern side of the installation. The alternative project area impacts currently disturbed habitat along North Boundary Road and the Tanker Way Gate developed area but does not impact the MacDill AFB airfield. It will also impact several natural areas on the northern side of the installation. Both the preferred and alternative project area would have up to six (6) total lift and/or grinder stations. The final number is to be determined during design phases, which has not been completed as of the date of this transmittal letter.

The new sanitary system will utilize a cut-and-cover trenching installation, with directional boring techniques being utilized in select areas to avoid impacts to existing infrastructure such as the runway, roadways, and man-made drainage ditches throughout the project area. Equipment and material lay down areas have yet to be determined, but are anticipated to be along the preferred or alternative sanitary sewer line project area.

Additional information was provided through email correspondence on January 24, 2022 with the MacDill AFB Environmental Flight Manager. The project will be completed in phases over the course of several years depending on funding. The Air Force has not identified any additional projects that would not be built but for the construction of the new sanitary sewer system. The below comments refer to both the preferred and alternative project areas.

Eastern indigo snake / gopher tortoise

The eastern indigo snake has not been sighted at MacDill AFB in recent history and a thorough review of a Service database shows that there have been no recorded observations within the installation boundaries or adjacent properties. The project will impact a small amount (~2 acres) of potential eastern indigo snake habitat adjacent to the air traffic control tower and the natural areas southeast of the Tanker Way Gate developed area. The project crosses several areas with known gopher tortoise (*Gopherus polyphemus*) burrows, though the exact number has not been determined at this time. The AF will implement the Eastern Indigo Snake Standard Protection Measures throughout project areas that have the potential for eastern indigo snake and/or gopher tortoise habitat. Additional surveys will be completed during the design phase to determine locations of gopher tortoise burrows.

Although the Service does not consult on candidate species such as the gopher tortoise, the Service greatly appreciates the effort the Air Force will engage in to limit the risk to this species during the project in accordance with the *2012 Gopher Tortoise Candidate Conservation Agreement*.

Wood stork

The project area occurs within the core foraging habitat of the core foraging areas of Alligator Lake, Ferman Corporation, and Citrus Park colonies. The species is routinely observed at MacDill AFB foraging in drainage ditches, tidal canals, permanent and ephemeral wetlands. Directional boring techniques will be used for all areas where sanitary sewer lines will cross drainage ditches. There are no anticipated impacts to wood stork suitable foraging habitat throughout the project. Potential secondary impacts from flushing and disturbance of foraging wood storks would be insignificant and discountable based on habituation patterns and previous disturbances observed at MacDill AFB from previous projects.

Based on the above information that was provided to the Service, species occurrence data, and aerial imagery, the Service concurs with 6 CES/CEI Environmental Element determination that the proposed action may affect, but is not likely to adversely affect the eastern indigo snake and wood stork.

If modifications are made to the project that may affect the listed species or habitat in a way not previously considered, if additional information becomes available involving potential effects to

listed species, or if take of a listed species occurs that is relevant to the currently proposed action, consultation shall be reinitiated.

If you have any questions regarding consultation, please contact Brendan Myers at brendan_myers@fws.gov or (904) 731-3328.

Sincerely,

Christopher Putnam
Environmental Review Division Supervisor

CC: Jason Kirkpatrick (AF)
Andrew Lykens (AF)

**FLORIDA WILDLIFE COMMISSION
CONSULTATION**

From: [KIRKPATRICK, JASON W CTR USAF AMC 6 CES/CEIE](#)
To: [Jennings, Nick](#); [Schneider, Rebecca](#); [Brown, Kyle](#)
Cc: [Myers, Brendan T](#); [RIDER, ANDREW W GS-12 USAF AMC 6 CES/CEIE](#); [LYKENS, ANDREW S CTR USAF AMC 6 CES/CEIE](#)
Subject: Burrowing Owls & Gopher Tortoise - Another MacDill AFB Project
Date: Wednesday, January 5, 2022 3:17:00 PM
Attachments: [preDraft EA FGUA Sanitary Expand.doc](#)
[FWC & USFWS Itr figures.pptx](#)

Kyle;

Good morning. Well, we have another utility installation project that will likely occur within the MacDill airfield and involve Gopher Tortoise habitat. Since we accomplished our consultation via e-mail (and phone calls) for the last project, I thought I would initiate it the same way this time....but if you would like a formal letter, we will gladly prepare one.

A description of the Proposed Action (aka project) is provided in Section 2.2.2 of the attached Environmental Assessment (note that there is a 'proposed' route and an 'alternative' route for the wastewater utility lines). The attached EA provides a brief discussion of baseline conditions for biological resources in Section 3.6 and moderately detailed discussion on the potential for impacts to gopher tortoise in Section 4.6, and the proposed management strategies prior to and during construction.

Nick/Rebecca;

I've included you all in this e-mail for your situation awareness regarding the Florida burrowing owl – although it does not look like we will have conflicts with the owls, they do move around the airfield occasionally, so we have included discussion and management of the species in our NEPA document (Section 4.6). Please let me know if there are any other considerations we should make regarding burrowing owls.

Thank you.

JasonK

JASON KIRKPATRICK, Contractor, PAE Inc.
Environmental Element Manager
813-614-5729

From: [KIRKPATRICK, JASON W CTR USAF AMC 6 CES/CEIE](#)
To: [Brown, Kyle](#); [Jennings, Nick](#); [Schneider, Rebecca](#)
Cc: [Myers, Brendan T](#); [RIDER, ANDREW W GS-12 USAF AMC 6 CES/CEIE](#); [LYKENS, ANDREW S CTR USAF AMC 6 CES/CEIE](#)
Subject: RE: Burrowing Owls & Gopher Tortoise - Another MacDill AFB Project
Date: Friday, January 21, 2022 9:09:00 AM

Kyle; Thank you for the quick review and reply. Responses to your comments are included below.

FWC Comment: Would want to make sure silt-fencing is buried if possible to prevent tortoises from burrowing under.

MacDill Response: Concur. I will update the EA to reflect that construction contractors will be informed that silt fencing, when used to demarcate and protect tortoise burrows, must be buried several inches below the surface to ensure tortoises do not go under the fencing.

FWC Comment: What capture methods are used on base? Would want to make sure resident tortoise was captured before collapsing burrow.

MacDill Response: MacDill has a gopher tortoise burrow camera system, so we would attempt to scope the burrow to confirm the presence of a tortoise. If the tortoise is confirmed on the scope, or if the equipment is not working or the end of the burrow cannot be reached with the scope, the preferred capture method, when timing allows, is bucket trap capture. We lay the trap for a 30 day period, and check the trap daily including weekends. The bucket has holes in the bottom for water drainage. Representatives from the MacDill Environmental Element conduct the trapping (not the construction contractor). If the construction schedule does not allow time for bucket trapping, representatives from the MacDill Environmental Element will conduct excavation of the burrow to capture the tortoise. We use a small mechanical excavator, provided and operated by the construction contractor, to dig out the burrow. We use a 10 foot length of flexible PVC pipe inserted into the burrow to help direct which direction to dig, and a shovel to hand dig, as needed, to clear the area after each excavator scoop so that we can keep advancing the PVC pipe ahead of the excavator bucket. The environmental representative maintains communication with the operator of the excavator. To date, we can accomplished three successful tortoise captures using bucket trapping, and only one tortoise capture using excavation.

Please let me know if you have any questions after reviewing the above information.

Jason K

JASON KIRKPATRICK, Contractor, PAE Inc.
Environmental Element Manager
813-614-5729

-----Original Message-----

From: Brown, Kyle <Kyle.Brown@MyFWC.com>
Sent: Thursday, January 20, 2022 4:47 PM

To: KIRKPATRICK, JASON W CTR USAF AMC 6 CES/CEIE <jason.kirkpatrick.2.ctr@us.af.mil>; Jennings, Nick <Nick.Jennings@MyFWC.com>; Schneider, Rebecca <Rebecca.Schneider@MyFWC.com>
Cc: Myers, Brendan T <brendan_myers@fws.gov>; RIDER, ANDREW W GS-12 USAF AMC 6 CES/CEIE <andrew.rider.2@us.af.mil>; LYKENS, ANDREW S CTR USAF AMC 6 CES/CEIE <andrew.lykens.ctr@us.af.mil>
Subject: [Non-DoD Source] RE: Burrowing Owls & Gopher Tortoise - Another MacDill AFB Project

Hi Jason,

I only had two minor comments on the plans. They pertain to silt-fencing and the capture methods used when burrows are not avoidable. Let me know if you have any questions!

Kyle Brown

Gopher Tortoise Conservation Biologist-Southwest Region Florida Fish and Wildlife Conservation Commission

3900 Drane Field Road

Lakeland, Florida 33811

Office: 863-648-3856

Email: Kyle.Brown@myfwc.com

Please Note: Florida has a very broad public records law. Most written communication to or from state officials regarding state business are public records available to the public and media upon request. Your e-mail communications may therefore be subject to public disclosure.

-----Original Message-----

From: KIRKPATRICK, JASON W CTR USAF AMC 6 CES/CEIE <jason.kirkpatrick.2.ctr@us.af.mil>

Sent: Wednesday, January 5, 2022 3:18 PM

To: Jennings, Nick <Nick.Jennings@MyFWC.com>; Schneider, Rebecca <Rebecca.Schneider@MyFWC.com>; Brown, Kyle <Kyle.Brown@MyFWC.com>

Cc: Myers, Brendan T <brendan_myers@fws.gov>; RIDER, ANDREW W GS-12 USAF AMC 6 CES/CEIE <andrew.rider.2@us.af.mil>; LYKENS, ANDREW S CTR USAF AMC 6 CES/CEIE <andrew.lykens.ctr@us.af.mil>

Subject: Burrowing Owls & Gopher Tortoise - Another MacDill AFB Project

[EXTERNAL SENDER] Use Caution opening links or attachments

**STATE HISTORIC PRESERVATION
OFFICE CONSULTATION**



**DEPARTMENT OF THE AIR FORCE
6TH AIR REFUELING WING (AMC)
MACDILL AIR FORCE BASE, FLORIDA**

MEMORANDUM FOR DIVISION OF HISTORIC RESOURCES
MR. SCOTT EDWARDS
R.A. GRAY BUILDING
500 SOUTH BRONOUGH STREET
TALLAHASSEE FL 32399

FROM: 6 CES/CEIE
7621 Hillsborough Loop Drive
MacDill AFB 33621-5207

SUBJECT: Expansion of Sanitary Sewer System on MacDill AFB

1. The water and wastewater utilities on MacDill Air Force Base are owned by the Florida Government Utility Authority (FGUA). FGUA has a large project planned for FY22 to expand the base wastewater collection system to the western side of the installation. Areas west of the runway are currently served by multiple septic systems, and completion of this project would allow these septic systems to be removed from service and demolished. Construction of the new wastewater collection system would involve the installation of approximately 12,900 linear feet of force main and several hundred feet of service laterals, along with three new lift stations. The proposed route for the new force main is presented in Figure 1 (Atch 1). An alternative route for the westward expansion of the sanitary sewer system, the Northern Route, is also being considered. The Northern Route is presented in Figure 2 (Atch 1).

2. MacDill AFB has defined the area of potential effect (APE) as a 50-foot wide linear tract following the force main route outlined in Figure 1 and the alternative route presented in Figure 2. The APE around the proposed lift stations would be larger due to increased ground disturbance required for installation of the structures, some of which would be above ground. Since there are no historic structures on the west side of the installation, there would be no effect on the viewshed for either of MacDill's two historic districts.

3. A Phase I archaeological survey of the western portion of MacDill AFB was accomplished in 2019. Numerous archaeological sites have been discovered on the western portion of the installation. These sites are presented in Figures 1 & 2 along with the location for the proposed sanitary sewer expansion and the alternative route for expansion of the wastewater collection system. A brief description of each archaeological site can be found in Attachment 2. Only one archaeological site (8Hi14613) is located near the proposed route for the western sanitary sewer system, and with proper project planning MacDill can ensure that all ground disturbing activities remain outside a 82-foot buffer (25-meter) around this site. Site 8Hi14613 has been determined ineligible for the National Register of Historic Places.

4. The Northern Route alternative for westward expansion of the sanitary sewer system would pass through two culturally significant archaeological sites (8Hi3382 and 8Hi14510); however, disturbance of both sites would be avoided through selective use of directional boring. Force main piping would be installed 10-20 feet below land surface beneath these sites. No ground disturbing activities would occur within a 25-meter buffer around either site.

MISSION FOCUSED...VALUED AIRMEN

5. Considering the comprehensive scope of recent archaeological surveys, it is unlikely that previously undocumented archaeological resources would be encountered during installation of the proposed force main piping and lift stations. In the unlikely event of an inadvertent discovery, all work in the vicinity of the discovery would stop and MacDill AFB would follow standard operating procedures described in our Integrated Cultural Resources Management Plan, which includes prompt notification to your office.

6. MacDill AFB has determined that this project would have no adverse effect on historic resources under Section 106 of the National Historic Preservation Act. We seek your input on the project and concurrence on our determination of no effect. If you have any questions or require additional information on the proposed project, please contact me at (813) 828-2718 or Mr. Jason Kirkpatrick, at (813) 614-5729.

ANDREW W. RIDER, GS-12, DAF
Chief, Environmental Element

2 Attachments:

1. Figures 1 and 2
2. Archaeological site descriptions

ATTACHMENT 1

ATTACHMENT 2

Archaeological Site Descriptions

Sanitary Sewer Expansion Project

8Hi03382 – The site type is lithic scatter associated with pre-contact archaic cultures. The site is NRHP eligible. The proposed sanitary sewer expansion project is approximately 670m from the site boundary.

8Hi05656 – The site type is lithic scatter associated with pre-contact middle to late archaic cultures. The site is not NRHP eligible. The proposed sanitary sewer expansion project is approximately 740m from the site boundary.

8Hi13595 – The site type is lithic scatter associated with pre-contact unknown cultures. The site is not NRHP eligible. The proposed sanitary sewer expansion project is approximately 890m from the site boundary.

8Hi13596 – The site type is lithic scatter associated with pre-contact unknown cultures. The site is not NRHP eligible. The proposed sanitary sewer expansion project is approximately 100m from the site boundary.

8Hi14510 – The site is a moderately dense lithic scatter with pre-contact unknown cultures. The site is considered potentially eligible for the NRHP and a Phase II investigation of the site is underway. If the proposed sanitary sewer expansion runs along the north side of North Boundary Blvd, the route would fall within the site boundary, however, if the sewer lines are installed on the south side of North Boundary Blvd then the work would be approximately 40 meters from the site boundary.

8Hi14516 – The site type is artifact scatter associated with pre-contact unknown and historic twentieth century unknown cultures. The site is not NRHP eligible. The proposed sanitary sewer expansion project is approximately 240m from the site boundary.

8Hi14517 – The site type is lithic scatter associated with pre-contact unknown cultures. The site is not NRHP eligible. The proposed sanitary sewer expansion project is approximately 475m from the site boundary.

8Hi14537 - The site type is redeposited artifact scatter associated with historic twentieth century cultures. The site is not NRHP eligible. The proposed sanitary sewer expansion project is approximately 420m from the site boundary.

8Hi14609 - The site type is lithic scatter associated with pre-contact unknown cultures. The site is not NRHP eligible. The proposed sanitary sewer expansion project is approximately 125m from the site boundary.

8Hi14610 – The site type is lithic scatter associated with pre-contact unknown cultures. The site is not NRHP eligible. The proposed sanitary sewer expansion project is approximately 820m from the site boundary.

8Hi14611 - The site type is lithic scatter associated with pre-contact unknown cultures. The site is not NRHP eligible. The proposed sanitary sewer expansion project is approximately 950m from the site boundary.

8Hi14612 - The site type is lithic scatter associated with pre-contact unknown cultures. The site is not NRHP eligible. The proposed sanitary sewer expansion project is approximately 160m from the site boundary.

8Hi14613 - The site type is lithic scatter associated with pre-contact unknown cultures. The site is not NRHP eligible. The proposed sanitary sewer expansion project is approximately 2m from the site boundary.

Sources:

1. Schnitzer, L.K, et. al, 2020. Phase I Archaeological Survey of 2,236.79 Acres Within MacDill Air Force Base, Hillsborough County, Florida. Prepared for MacDill AFB and Air Force Civil Engineer Center by New South Associates Inc., Stone Mountain, GA.

2. Lyons, Matt, et. al. 2021. DRAFT Phase I Archaeological Survey of 179.63 Ac and Phase II Investigation of Four Sites at MacDill Air Force Base, Hillsborough County, Florida. Prepared for MacDill AFB and Air Force Civil Engineer Center by New South Associates Inc., Stone Mountain, GA.



FLORIDA DEPARTMENT *of* STATE

RON DESANTIS
Governor

LAUREL M. LEE
Secretary of State

Mr. Andrew W. Rider
Chief, Environmental Element
6 CES/CEIC
7621 Hillsborough Loop Drive
MacDill Air Force Base, Florida 33621-5207

January 13, 2022

Re: DHR Project File No.: 2022-189
Proposed Expansion of Sanitary Sewer System on MacDill AFB
MacDill Air Force Base, Hillsborough County

Dear Mr. Rider:

The Florida State Historic Preservation Officer reviewed the referenced project 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 the conditions outlined in your letter concerning fortuitous finds or unexpected archaeological discoveries, this office concurs with your finding that the proposed undertaking will have no effect on historic properties.

This office would like to thank you and your staff on the detailed content of the submittal. If you have any questions concerning our comments, please contact Scott Edwards, Historic Preservationist, by electronic mail scott.edwards@dos.myflorida.com, or at 850.245.6333 or 800.847.7278.

Sincerely,

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

TRIBAL CONSULTATION



**DEPARTMENT OF THE AIR FORCE
6TH AIR REFUELING WING (AMC)
MACDILL AIR FORCE BASE, FLORIDA**

DEC 15 2021

Colonel Benjamin R. Jonsson
Commander
6th Air Refueling Wing
8208 Hangar Loop Drive, Suite 1
MacDill Air Force Base FL 33621-5407

Mr. Billy Cypress
Chairman
Miccosukee Tribe of Indians of Florida
Tamiami Station
PO Box 440021
Miami FL 33144

Dear Mr. Cypress

The Florida Government Utility Authority (FGUA) has developed plans to implement two large scale improvements to the wastewater collection and treatment system at MacDill Air Force Base. Both of these projects would result in ground disturbance and create a potential, although limited, to affect archaeological resources.

In accordance with Executive Order 13175, *Consultation with Indian Tribal Governments*, the Air Force would like to initiate government-to-government consultation regarding the FGUA's plans to improve the base wastewater collection and treatment system. The Air Force desires to discuss the proposal in detail with you so that we may understand and consider any comments, concerns, and suggestions you may have. This letter also initiates our consultation under Section 106 of the National Historic Preservation Act (Code of Federal Regulations, Title 36, Part 800) and requests your input. The two projects are described in detail below and their locations are presented in the attached figures.

Project #1 would extend the wastewater collection system to the western side of the installation. Expanding the sanitary sewer system west of the runway will eliminate the localized septic systems on the western portion of the installation. It may also encourage future development within a portion of the installation that has historically been under-utilized. The proposed work involves substantial excavation for the installation of multiple lift stations and a network of gravity and force main sanitary sewer lines. Installation of the force main piping would primarily be accomplished using a cut-and-cover trenching approach, although directional boring would be used to avoid the runway, taxiways, roadways, and ditch crossings. The new sanitary lines would connect existing facilities on the west side of the runway to the wastewater collection system that already operates on the eastern portion of the base. Figure 1 presents the proposed location for expansion of the sanitary sewer system. An alternative route for the westward expansion of the sanitary sewer system, the Northern Route, is also being considered. Figure 2 presents the location for the Northern Route for sanitary sewer expansion.

MISSION FOCUSED...VALUED AIRMEN

Project #2 would install a Class I deep injection well near the base wastewater treatment plant to provide an alternative discharge point for tertiary treated wastewater. Initial plans are for a 24" well to be drilled down to the top of the Avon Park Formation with an open borehole from ~700 to 900 feet below land surface. Figure 3 presents the three locations being considered for the deep injection well.

Figure 4 presents the location of ground disturbing activities associated with expansion of the sanitary sewer system west of the runway in relation to known archaeological sites. Figure 4 also presents the location for the Northern Route alternative for expansion of the sanitary sewer system. Only one archaeological site (8Hi14613) is located near the proposed route for the western sanitary sewer system, and with proper project planning MacDill can ensure that all ground disturbing activities remain outside a 25-meter buffer around the site. Site 8Hi14613 has been determined ineligible for the National Register of Historic Places. If the Northern Route alternative for expansion of the sanitary sewer is selected, the route would cross two culturally significant archaeological sites (8Hi03382 and 8Hi14510); however, disturbance of both sites would be avoided through the selective use of directional boring. The force main would be installed 10-20 feet below land surface beneath these sites and no ground disturbing activities would occur within a 25-meter buffer around the site.

Figure 5 presents possible locations for installation of the deep injection well in relation to known archaeological sites. One of the proposed sites for the deep injection well is located very near Site 8Hi00050, which is eligible for the National Register of Historic Places. Figure 6 presents the estimated site boundaries for site 8Hi00050 in relation to sites being considered for installation of the injection well. Attachment 2 provides a short description of the 30 sites within 1 km of both the sanitary sewer project and the injection well project. Overall, we believe the potential for impact to archaeological sites is low; however, if artifacts, concentrations of shell, or unique soil conditions are discovered during earth work, all construction activity in the vicinity of the discovery shall cease until the MacDill Cultural Resources Manager has assessed the situation in consultation with your tribe.

Please let us know when you would be available to discuss the proposed project and your expectations on how to proceed with consultation. Please contact me at (813) 828-4444 to discuss dates and times for consultation.

Sincerely



BENJAMIN R. JONSSON, Colonel, USAF
Commander

2 Attachments:

1. Figures 1 through 6
2. Archaeological Site Descriptions

cc:

Mr. Kevin Donaldson

LEGEND

- Installation Boundary
- Proposed New Sanitary Force Main
- Proposed New Lift Station



UH-60
Area

Figure 1: Location of the proposed force mains to support expansion of the sanitary sewer system to the western side of the installation.

LEGEND

- Installation Boundary
- Proposed New Sanitary Force Main
- Proposed New Lift Station



Figure 2: Location of proposed force main piping for the Northern Route Alternative considered for expansion of the sanitary sewer system to the western side of the installation.



MacDill Air Force Base Environmental
6 CES/CEIEC
7621 Hillsborough Loop Dr.
MacDill AFB, FL 33621

27 April 2022

MEMORANDUM FOR RECORD

FROM: 6 CES/CEIE

SUBJECT: Consultation with the Miccosukee Tribe of Indians of Florida Regarding Florida Government Utility Authority Expansion of the Sanitary Sewer System at MacDill AFB

1. A hard copy consultation letter for the subject project was mailed to the Miccosukee Tribe of Indians of Florida on 15 December 2022. In addition, an electronic version of the letter was e-mailed to Mr. Kevin Donaldson with the Miccosukee Tribe of Indians of Florida on 16 December 2021. A follow-up e-mail was sent to Mr. Donaldson on 1 April 2022 to confirm that the initial consultation letter was received and to request feedback from the Miccosukee Tribe. To date, no reply has been received from Mr. Donaldson on our requests for input on the Florida Government Utility Authority Expand Sanitary Sewer System project.
2. On 27 April 2022, I placed a phone call to Mr. Donaldson to follow-up, there was no answer. Mr. Donaldson has previously stated that if no responses or phone calls are received by the Air Force within 30-60 days of submittal, we can assume the tribe has no objection to the project.
3. The final NEPA documents will be executed, but it is understood that the tribe may provide comments or requests at any time and those requests will be considered accordingly.

Jason Kirkpatrick

JASON W. KIRKPATRICK, Contractor
Environmental Manager, 6th Civil Engineer Squadron



Commit to Serve, Commit to Conserve





**DEPARTMENT OF THE AIR FORCE
6TH AIR REFUELING WING (AMC)
MACDILL AIR FORCE BASE, FLORIDA**

DEC 15 2021

Colonel Benjamin R. Jonsson
Commander
6th Air Refueling Wing
8208 Hangar Loop Drive, Suite 1
MacDill Air Force Base FL 33621-5407

Mr. David Hill
Principal Chief
Muscogee (Creek) Nation
P.O. Box 580
Okmulgee Oklahoma 74447

Dear Mr. Hill

The Florida Government Utility Authority (FGUA) has developed plans to implement two large scale improvements to the wastewater collection and treatment system at MacDill Air Force Base. Both of these projects would result in ground disturbance and create a potential, although limited, to affect archaeological resources.

In accordance with Executive Order 13175, *Consultation with Indian Tribal Governments*, the Air Force would like to initiate government-to-government consultation regarding the FGUA's plans to improve the base wastewater collection and treatment system. The Air Force desires to discuss the proposal in detail with you so that we may understand and consider any comments, concerns, and suggestions you may have. This letter also initiates our consultation under Section 106 of the National Historic Preservation Act (Code of Federal Regulations, Title 36, Part 800) and requests your input. The two projects are described in detail below and their locations are presented in the attached figures.

Project #1 would extend the wastewater collection system to the western side of the installation. Expanding the sanitary sewer system west of the runway will eliminate the localized septic systems on the western portion of the installation. It may also encourage future development within a portion of the installation that has historically been under-utilized. The proposed work involves substantial excavation for the installation of multiple lift stations and a network of gravity and force main sanitary sewer lines. Installation of the force main piping would primarily be accomplished using a cut-and-cover trenching approach, although directional boring would be used to avoid the runway, taxiways, roadways, and ditch crossings. The new sanitary lines would connect existing facilities on the west side of the runway to the wastewater collection system that already operates on the eastern portion of the base. Figure 1 presents the proposed location for expansion of the sanitary sewer system. An alternative route for the westward expansion of the sanitary sewer system, the Northern Route, is also being considered. Figure 2 presents the location for the Northern Route for sanitary sewer expansion.

Project #2 would install a Class I deep injection well near the base wastewater treatment plant to provide an alternative discharge point for tertiary treated wastewater. Initial plans are for a 24" well to be drilled down to the top of the Avon Park Formation with an open borehole from ~700 to 900 feet below land surface. Figure 3 presents the three locations being considered for the deep injection well.

Figure 4 presents the location of ground disturbing activities associated with expansion of the sanitary sewer system west of the runway in relation to known archaeological sites. Figure 4 also presents the location for the Northern Route alternative for expansion of the sanitary sewer system. Only one archaeological site (8Hi14613) is located near the proposed route for the western sanitary sewer system, and with proper project planning MacDill can ensure that all ground disturbing activities remain outside a 25-meter buffer around the site. Site 8Hi14613 has been determine ineligible for the National Register of Historic Places. If the Northern Route alternative for expansion of the sanitary sewer is selected, the route would cross two culturally significant archaeological sites (8Hi03382 and 8Hi14510); however, disturbance of both sites would be avoided through the selective use of directional boring. The force main would be installed 10-20 feet below land surface beneath these sites and no ground disturbing activities would occur within a 25-meter buffer around the site.

Figure 5 presents possible locations for installation of the deep injection well in relation to known archaeological sites. One of the proposed sites for the deep injection well is located very near Site 8Hi00050, which is eligible for the National Register of Historic Places. Figure 6 presents the estimated site boundaries for site 8Hi00050 in relation to sites being considered for installation of the injection well. Attachment 2 provides a short description of the 30 sites within 1 km of both the sanitary sewer project and the injection well project. Overall, we believe the potential for impact to archaeological sites is low; however, if artifacts, concentrations of shell, or unique soil conditions are discovered during earth work, all construction activity in the vicinity of the discovery shall cease until the MacDill Cultural Resources Manager has assessed the situation in consultation with your tribe.

Please let us know when you would be available to discuss the proposed project and your expectations on how to proceed with consultation. Please contact me at (813) 828-4444 to discuss dates and times for consultation.

Sincerely



BENJAMIN R. JONSSON, Colonel, USAF
Commander

2 Attachments:

1. Figures 1 through 6
2. Archaeological Site Descriptions

cc:

Ms. RayLynn Butler

LEGEND

- Installation Boundary
- Proposed New Sanitary Force Main
- Proposed New Lift Station



UH-60
Area

Figure 1: Location of the proposed force mains to support expansion of the sanitary sewer system to the western side of the installation.

LEGEND

- Installation Boundary
- Proposed New Sanitary Force Main
- Proposed New Lift Station



Figure 2: Location of proposed force main piping for the Northern Route Alternative considered for expansion of the sanitary sewer system to the western side of the installation.



MacDill Air Force Base Environmental
6 CES/CEIEC
7621 Hillsborough Loop Dr.
MacDill AFB, FL 33621

27 April 2022

MEMORANDUM FOR RECORD

FROM: 6 CES/CEIE

SUBJECT: Consultation with the Muscogee (Creek) Nation Regarding Florida Government Utility Authority Expand Sanitary Sewer System Project at MacDill AFB

1. A hard copy consultation letter for the subject project was mailed to the Muscogee (Creek) Nation on 15 December 2021. In addition, an electronic version of the letter was e-mailed to Section 106 Administrative Mailbox for the Muscogee Creek Nation (Section106@mcn-nsn.gov) as well as to Ms. RaeLynn Butler with the Muscogee (Creek) Nation on 16 December 2021. A follow-up e-mail was sent to Ms. Butler on 1 April 2022 to confirm that the initial consultation letter was received and to request feedback from the Muscogee (Creek) Nation. To date, no reply has been received from Ms. Butler on our requests for input on the Florida Government Utility Authority Expand Sanitary Sewer System project.
2. On 27 April 2022, I placed a call to the Historic and Cultural Preservation Department for the Muscogee (Creek) Nation to check-in and follow-up. I called Ms. Butler's direct extension and reached her voicemail. I left a detailed message for the reason for the call along with my phone number. No return call was received from Ms. Butler.
3. I will update this Memorandum for Record if additional feedback from the Muscogee tribe is received. The final NEPA documents will be executed, but it is understood that the tribe may provide comments or requests at any time and those requests will be considered accordingly.

Jason Kirkpatrick

JASON W. KIRKPATRICK, Contractor
Environmental Manager, 6th Civil Engineer Squadron



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DEPARTMENT OF THE AIR FORCE
6TH AIR REFUELING WING (AMC)
MACDILL AIR FORCE BASE, FLORIDA

DEC 15 2021

Colonel Benjamin R. Jonsson
Commander
6th Air Refueling Wing
8208 Hangar Loop Drive, Suite 1
MacDill Air Force Base FL 33621-5407

Mr. Greg Chilcoat
Principal Chief
Seminole Nation of Oklahoma
PO Box 1498
Wewoka OK 74884

Dear Mr. Chilcoat

The Florida Government Utility Authority (FGUA) has developed plans to implement two large scale improvements to the wastewater collection and treatment system at MacDill Air Force Base. Both of these projects would result in ground disturbance and create a potential, although limited, to affect archaeological resources.

In accordance with Executive Order 13175, *Consultation with Indian Tribal Governments*, the Air Force would like to initiate government-to-government consultation regarding the FGUA's plans to improve the base wastewater collection and treatment system. The Air Force desires to discuss the proposal in detail with you so that we may understand and consider any comments, concerns, and suggestions you may have. This letter also initiates our consultation under Section 106 of the National Historic Preservation Act (Code of Federal Regulations, Title 36, Part 800) and requests your input. The two projects are described in detail below and their locations are presented in the attached figures.

Project #1 would extend the wastewater collection system to the western side of the installation. Expanding the sanitary sewer system west of the runway will eliminate the localized septic systems on the western portion of the installation. It may also encourage future development within a portion of the installation that has historically been under-utilized. The proposed work involves substantial excavation for the installation of multiple lift stations and a network of gravity and force main sanitary sewer lines. Installation of the force main piping would primarily be accomplished using a cut-and-cover trenching approach, although directional boring would be used to avoid the runway, taxiways, roadways, and ditch crossings. The new sanitary lines would connect existing facilities on the west side of the runway to the wastewater collection system that already operates on the eastern portion of the base. Figure 1 presents the proposed location for expansion of the sanitary sewer system. An alternative route for the westward expansion of the sanitary sewer system, the Northern Route, is also being considered. Figure 2 presents the location for the Northern Route for sanitary sewer expansion.

Project #2 would install a Class I deep injection well near the base wastewater treatment plant to provide an alternative discharge point for tertiary treated wastewater. Initial plans are for a 24" well to be drilled down to the top of the Avon Park Formation with an open borehole from ~700 to 900 feet below land surface. Figure 3 presents the three locations being considered for the deep injection well.

Figure 4 presents the location of ground disturbing activities associated with expansion of the sanitary sewer system west of the runway in relation to known archaeological sites. Figure 4 also presents the location for the Northern Route alternative for expansion of the sanitary sewer system. Only one archaeological site (8Hi14613) is located near the proposed route for the western sanitary sewer system, and with proper project planning MacDill can ensure that all ground disturbing activities remain outside a 25-meter buffer around the site. Site 8Hi14613 has been determine ineligible for the National Register of Historic Places. If the Northern Route alternative for expansion of the sanitary sewer is selected, the route would cross two culturally significant archaeological sites (8Hi03382 and 8Hi14510); however, disturbance of both sites would be avoided through the selective use of directional boring. The force main would be installed 10-20 feet below land surface beneath these sites and no ground disturbing activities would occur within a 25-meter buffer around the site.

Figure 5 presents possible locations for installation of the deep injection well in relation to known archaeological sites. One of the proposed sites for the deep injection well is located very near Site 8Hi00050, which is eligible for the National Register of Historic Places. Figure 6 presents the estimated site boundaries for site 8Hi00050 in relation to sites being considered for installation of the injection well. Attachment 2 provides a short description of the 30 sites within 1 km of both the sanitary sewer project and the injection well project. Overall, we believe the potential for impact to archaeological sites is low; however, if artifacts, concentrations of shell, or unique soil conditions are discovered during earth work, all construction activity in the vicinity of the discovery shall cease until the MacDill Cultural Resources Manager has assessed the situation in consultation with your tribe.

Please let us know when you would be available to discuss the proposed project and your expectations on how to proceed with consultation. Please contact me at (813) 828-4444 to discuss dates and times for consultation.

Sincerely



BENJAMIN R. JONSSON, Colonel, USAF
Commander

2 Attachments:

1. Figures 1 through 6
2. Archaeological Site Descriptions

cc:

Mr. Edwin Marshal

LEGEND

- Installation Boundary
- Proposed New Sanitary Force Main
- Proposed New Lift Station



UH-60
Area

Figure 1: Location of the proposed force mains to support expansion of the sanitary sewer system to the western side of the installation.

LEGEND

- Installation Boundary
- Proposed New Sanitary Force Main
- Proposed New Lift Station



Figure 2: Location of proposed force main piping for the Northern Route Alternative considered for expansion of the sanitary sewer system to the western side of the installation.



MacDill Air Force Base Environmental
6 CES/CEIEC
7621 Hillsborough Loop Dr.
MacDill AFB, FL 33621

27 April 2022

MEMORANDUM FOR RECORD

FROM: 6 CES/CEIEC

SUBJECT: Consultation with the Seminole Nation of Oklahoma Regarding Florida
Government Utility Authority Expand Sanitary Sewer System Project at MacDill
AFB

1. A hard copy consultation letter for the subject project was mailed to the Seminole Nation of Oklahoma on 15 December 2021. In addition, an electronic version of the letter was e-mailed to Mr. Edwin Marshall with the Seminole Nation of Oklahoma on 16 December 2021. A follow-up e-mail was sent to Mr. Marshall on 1 April 2022 to confirm that the initial consultation letter was received and to request feedback from the Seminole Nation of Oklahoma. To date, there has been no reply from Mr. Marshall on our requests for input on the Florida Government Utility Authority Expand Sanitary Sewer project.
2. On 27 April 2022, I placed a call to the Historic Preservation Office for the Seminole Nation of Oklahoma to check-in and follow-up. I was informed that Mr. Edwin Marshall is no longer the THPO, and a new THPO has not been established yet. If I receive any feedback at a later date, then I will update this memorandum.
3. The final NEPA documents will be executed, but it is understood that the tribe may provide comments or requests at any time and those requests will be considered accordingly.

Jason Kirkpatrick

JASON W. KIRKPATRICK, Contractor
Environmental Manager, 6th Civil Engineer Squadron



Commit to Serve, Commit to Conserve





**DEPARTMENT OF THE AIR FORCE
6TH AIR REFUELING WING (AMC)
MACDILL AIR FORCE BASE, FLORIDA**

DEC 15 2021

Colonel Benjamin Jonsson
Commander
6th Air Refueling Wing
8208 Hangar Loop Drive, Suite 1
MacDill Air Force Base FL 33621-5407

Mr. Marcellus W. Osceola, Jr.
Chairman
Seminole Tribe of Florida
30290 Josie Billie Hwy, PMB 1004
Clewiston FL 33440

Dear Mr. Osceola

The Florida Government Utility Authority (FGUA) has developed plans to implement two large scale improvements to the wastewater collection and treatment system at MacDill Air Force Base. Both of these projects would result in ground disturbance and create a potential, although limited, to affect archaeological resources.

In accordance with Executive Order 13175, *Consultation with Indian Tribal Governments*, the Air Force would like to initiate government-to-government consultation regarding the FGUA's plans to improve the base wastewater collection and treatment system. The Air Force desires to discuss the proposal in detail with you so that we may understand and consider any comments, concerns, and suggestions you may have. This letter also initiates our consultation under Section 106 of the National Historic Preservation Act (Code of Federal Regulations, Title 36, Part 800) and requests your input. The two projects are described in detail below and their locations are presented in the attached figures.

Project #1 would extend the wastewater collection system to the western side of the installation. Expanding the sanitary sewer system west of the runway will eliminate the localized septic systems on the western portion of the installation. It may also encourage future development within a portion of the installation that has historically been under-utilized. The proposed work involves substantial excavation for the installation of multiple lift stations and a network of gravity and force main sanitary sewer lines. Installation of the force main piping would primarily be accomplished using a cut-and-cover trenching approach, although directional boring would be used to avoid the runway, taxiways, roadways, and ditch crossings. The new sanitary lines would connect existing facilities on the west side of the runway to the wastewater collection system that already operates on the eastern portion of the base. Figure 1 presents the proposed location for expansion of the sanitary sewer system. An alternative route for the westward expansion of the sanitary sewer system, the Northern Route, is also being considered. Figure 2 presents the location for the Northern Route for sanitary sewer expansion.

MISSION FOCUSED...VALUED AIRMEN

Project #2 would install a Class I deep injection well near the base wastewater treatment plant to provide an alternative discharge point for tertiary treated wastewater. Initial plans are for a 24" well to be drilled down to the top of the Avon Park Formation with an open borehole from ~700 to 900 feet below land surface. Figure 3 presents the three locations being considered for the deep injection well.

Figure 4 presents the location of ground disturbing activities associated with expansion of the sanitary sewer system west of the runway in relation to known archaeological sites. Figure 4 also presents the location for the Northern Route alternative for expansion of the sanitary sewer system. Only one archaeological site (8Hi14613) is located near the proposed route for the western sanitary sewer system, and with proper project planning MacDill can ensure that all ground disturbing activities remain outside a 25-meter buffer around the site. Site 8Hi14613 has been determined ineligible for the National Register of Historic Places. If the Northern Route alternative for expansion of the sanitary sewer is selected, the route would cross two culturally significant archaeological sites (8Hi03382 and 8Hi14510); however, disturbance of both sites would be avoided through the selective use of directional boring. The force main would be installed 10-20 feet below land surface beneath these sites and no ground disturbing activities would occur within a 25-meter buffer around the site.

Figure 5 presents possible locations for installation of the deep injection well in relation to known archaeological sites. One of the proposed sites for the deep injection well is located very near Site 8Hi00050, which is eligible for the National Register of Historic Places. Figure 6 presents the estimated site boundaries for site 8Hi00050 in relation to sites being considered for installation of the injection well. Attachment 2 provides a short description of the 30 sites within 1 km of both the sanitary sewer project and the injection well project. Overall, we believe the potential for impact to archaeological sites is low; however, if artifacts, concentrations of shell, or unique soil conditions are discovered during earth work, all construction activity in the vicinity of the discovery shall cease until the MacDill Cultural Resources Manager has assessed the situation in consultation with your tribe.

Please let us know when you would be available to discuss the proposed project and your expectations on how to proceed with consultation. Please contact me at (813) 828-4444 to discuss dates and times for consultation.

Sincerely



BENJAMIN R. JONSSON, Colonel, USAF
Commander

2 Attachments:

1. Figures 1 through 6
2. Archaeological Site Descriptions

cc:

Dr. Paul Backhouse

LEGEND

- Installation Boundary
- Proposed New Sanitary Force Main
- Proposed New Lift Station



UH-60
Area

Figure 1: Location of the proposed force mains to support expansion of the sanitary sewer system to the western side of the installation.

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Figure 2: Location of proposed force main piping for the Northern Route Alternative considered for expansion of the sanitary sewer system to the western side of the installation.



MacDill Air Force Base Environmental
6 CES/CEIE
7621 Hillsborough Loop Dr.
MacDill AFB, FL 33621

27 April 2022

MEMORANDUM FOR RECORD

FROM: 6 CES/CEIE

SUBJECT: Consultation with the Seminole Tribe of Florida Regarding Florida Government Utility Authority Expand Sanitary Sewer System Project at MacDill AFB

1. A hard copy consultation letter for the subject project was mailed to the Seminole Tribe of Florida on 15 December 2021. In addition, an electronic version of the letter was e-mailed to Dr. Paul Backhouse, Mr. Bradly Mueller, and the STOF THPO Compliance in-box on 16 December 2021. A follow-up e-mail was sent to the above individuals/e-mail box on 1 April 2022 to confirm that the initial consultation letter was received and to request feedback from the Seminole Tribe of Florida. To date, there has been no reply from anyone from the Seminole Tribe of Florida on our requests for input on the Florida Government Utility Authority Expand Sanitary Sewer project.
2. On 27 April 2022, I placed a call to the Historic Preservation Office for the Seminole Tribe of Florida to check-in and follow-up. I left a voicemail message for Anne Mullins in the Tribal Historic Preservation Office. If I receive any feedback at a later date, then I will update this memorandum.
3. The final NEPA documents will be executed, but it is understood that the tribe may provide comments or requests at any time and those requests will be considered accordingly.

Jason Kirkpatrick

JASON W. KIRKPATRICK, Contractor
Environmental Manager, 6th Civil Engineer Squadron



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APPENDIX C

AIR EMISSION CALCULATIONS FOR PROJECT

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

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 Manual 32-7002, Environmental Compliance and Pollution Prevention; 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: MACDILL AFB
State: Florida
County(s): Hillsborough
Regulatory Area(s): Hillsborough County, FL

b. Action Title: FGUA Expansion of Sanitary Sewer System Full Project Scope

c. Project Number/s (if applicable):

d. Projected Action Start Date: 7 / 2022

e. Action Description:

The Proposed Action involves the installation of approximately 12,900 linear feet of sanitary sewer force main and the construction of three lift stations. Construction of the new sanitary sewer system would be accomplished in three phases over multiple years. The initial phase is planned for FY22 and would construct one lift station with the 4,900 linear feet of force main that crosses the airfield between the new U.S. Army Reserve UH-60 facility and the Control Tower on the west side of the runway. Follow-on phases of work would construct approximately 8,000 linear feet of additional force main and two additional lift stations along North Boundary Boulevard between Tanker Way Gate and the Defense Fuel Support Point all of which would connect to the lift station near the Control Tower.

This ACAM evaluation includes all of the phased construction activities for the multi-year project completed during 2022 and 2023 to estimate a high-end of emsions associated with the project. A separate ACAM evaluation was prepared that estimates the air emissions for only the first phase of the project.

f. Point of Contact:

Name: Mike Harrison
Title: Air Quality Program Manager
Organization: 6 CES/CEIE
Email: michael.harrison.19.ctr@us.af.mil
Phone Number: 813-828-0462

2. Analysis: 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. General Conformity under the Clean Air Act, Section 1.76 has been evaluated for the action described above according to the requirements of 40 CFR 93, Subpart B.

Based on the analysis, the requirements of this rule are: applicable
 X not applicable

Conformity Analysis Summary:

		2022	
Pollutant	Action Emissions (ton/yr)	GENERAL CONFORMITY	
		Threshold (ton/yr)	Exceedance (Yes or No)

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

Hillsborough County, FL			
VOC	0.138		
NOx	0.736		
CO	1.012		
SOx	0.003	100	No
PM 10	3.611		
PM 2.5	0.030		
Pb	0.000		
NH3	0.000		
CO2e	246.7		

2023

Pollutant	Action Emissions (ton/yr)	GENERAL CONFORMITY	
		Threshold (ton/yr)	Exceedance (Yes or No)
Hillsborough County, FL			
VOC	0.301		
NOx	1.630		
CO	1.939		
SOx	0.005	100	No
PM 10	3.645		
PM 2.5	0.063		
Pb	0.000		
NH3	0.001		
CO2e	501.6		

2024 - (Steady State)

Pollutant	Action Emissions (ton/yr)	GENERAL CONFORMITY	
		Threshold (ton/yr)	Exceedance (Yes or No)
Hillsborough County, FL			
VOC	0.000		
NOx	0.000		
CO	0.000		
SOx	0.000	100	No
PM 10	0.000		
PM 2.5	0.000		
Pb	0.000		
NH3	0.000		
CO2e	0.0		

None of estimated emissions associated with this action are above the conformity threshold values established at 40 CFR 93.153 (b); Therefore, the requirements of the General Conformity Rule are not applicable.

Mike Harrison, Air Quality Program Manager

DATE

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

1. General Information

- Action Location

Base: MACDILL AFB
State: Florida
County(s): Hillsborough
Regulatory Area(s): Hillsborough County, FL

- Action Title: FGUA Expansion of Sanitary Sewer System Full Project Scope

- Project Number/s (if applicable):

- Projected Action Start Date: 7 / 2022

- Action Purpose and Need:

The purpose of the Proposed Action is to extend the existing, FGUA-owned wastewater collection system from the main Base to the area located west of the runway. Facilities west of the runway have always utilized local, on-site septic systems to process wastewater and extending the wastewater collection network across the runway would allow facilities west of the runway to connect to the sanitary sewer system and the septic systems would no longer be required.

- Action Description:

The Proposed Action involves the installation of approximately 12,900 linear feet of sanitary sewer force main and the construction of three lift stations. Construction of the new sanitary sewer system would be accomplished in three phases over multiple years. The initial phase is planned for FY22 and would construct one lift station with the 4,900 linear feet of force main that crosses the airfield between the new U.S. Army Reserve UH-60 facility and the Control Tower on the west side of the runway. Follow-on phases of work would construct approximately 8,000 linear feet of additional force main and two additional lift stations along North Boundary Boulevard between Tanker Way Gate and the Defense Fuel Support Point all of which would connect to the lift station near the Control Tower.

This ACAM evaluation includes all of the phased construction activities for the multi-year project completed during 2022 and 2023 to estimate a high-end of emissions associated with the project. A separate ACAM evaluation was prepared that estimates the air emissions for only the first phase of the project.

- Point of Contact

Name: Mike Harrison
Title: Air Quality Program Manager
Organization: 6 CES/CEIE
Email: michael.harrison.19.ctr@us.af.mil
Phone Number: 813-828-0462

- Activity List:

	Activity Type	Activity Title
2.	Construction / Demolition	Construction of All phases of the Sanitary Sewer System

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.

2. Construction / Demolition

2.1 General Information & Timeline Assumptions

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

- Activity Location

County: Hillsborough
Regulatory Area(s): Hillsborough County, FL

- Activity Title: Construction of All phases of the Sanitary Sewer System

- Activity Description:

The Proposed Action involves the installation of approximately 12,900 linear feet of PVC and HDPE sanitary sewer force main and the construction of three lift stations. Total force main trenching is estimated as 9,900 feet (aprox. 12-foot wide) with the balance being underground, directional boring. The three lift stations locations each include: 300 square feet of concrete paving, one single-story concrete block building, and an additional 100 feet of trenching (2-foot wide) for associated electric/control cable conduit and water service pipe.

- Activity Start Date

Start Month: 7
Start Month: 2022

- Activity End Date

Indefinite: False
End Month: 6
End Month: 2023

- Activity Emissions:

Pollutant	Total Emissions (TONs)
VOC	0.438568
SO _x	0.007728
NO _x	2.366218
CO	2.950545
PM 10	7.255953

Pollutant	Total Emissions (TONs)
PM 2.5	0.093182
Pb	0.000000
NH ₃	0.001551
CO ₂ e	748.3

2.1 Site Grading Phase

2.1.1 Site Grading Phase Timeline Assumptions

- Phase Start Date

Start Month: 1
Start Quarter: 1
Start Year: 2023

- Phase Duration

Number of Month: 6
Number of Days: 0

2.1.2 Site Grading Phase Assumptions

- General Site Grading Information

Area of Site to be Graded (ft²): 30000
Amount of Material to be Hauled On-Site (yd³): 9800
Amount of Material to be Hauled Off-Site (yd³): 0

- Site Grading Default Settings

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

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

- 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 (yd³): 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	0.0757	0.0014	0.4155	0.5717	0.0191	0.0191	0.0068	132.91
Other Construction Equipment Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0483	0.0012	0.2497	0.3481	0.0091	0.0091	0.0043	122.61
Rubber Tired Dozers Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.1830	0.0024	1.2623	0.7077	0.0494	0.0494	0.0165	239.49
Tractors/Loaders/Backhoes Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0364	0.0007	0.2127	0.3593	0.0080	0.0080	0.0032	66.879

- 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

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

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

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 (yd³)
HA_{OffSite}: Amount of Material to be Hauled Off-Site (yd³)
HC: Average Hauling Truck Capacity (yd³)
(1 / HC): Conversion Factor cubic yards to trips (1 trip / HC yd³)
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 Trenching/Excavating Phase

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

2.2.1 Trenching / Excavating Phase Timeline Assumptions

- Phase Start Date

Start Month: 7
 Start Quarter: 1
 Start Year: 2022

- Phase Duration

Number of Month: 9
 Number of Days: 0

2.2.2 Trenching / Excavating Phase Assumptions

- General Trenching/Excavating Information

Area of Site to be Trenched/Excavated (ft²): 60000
 Amount of Material to be Hauled On-Site (yd³): 0
 Amount of Material to be Hauled Off-Site (yd³): 2200

- Trenching 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
Excavators Composite	2	8
Other General Industrial Equipmen Composite	1	8
Tractors/Loaders/Backhoes Composite	1	8

- Vehicle Exhaust

Average Hauling Truck Capacity (yd³): 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

2.2.3 Trenching / Excavating 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	0.0757	0.0014	0.4155	0.5717	0.0191	0.0191	0.0068	132.91
Other Construction Equipment Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0483	0.0012	0.2497	0.3481	0.0091	0.0091	0.0043	122.61

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

Rubber Tired Dozers Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.1830	0.0024	1.2623	0.7077	0.0494	0.0494	0.0165	239.49
Tractors/Loaders/Backhoes Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0364	0.0007	0.2127	0.3593	0.0080	0.0080	0.0032	66.879

- 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 Trenching / Excavating 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 (yd³)

HA_{OffSite}: Amount of Material to be Hauled Off-Site (yd³)

HC: Average Hauling Truck Capacity (yd³)

(1 / HC): Conversion Factor cubic yards to trips (1 trip / HC yd³)

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 (%)

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

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

2.3 Building Construction Phase

2.3.1 Building Construction Phase Timeline Assumptions

- Phase Start Date

Start Month: 1

Start Quarter: 1

Start Year: 2023

- Phase Duration

Number of Month: 6

Number of Days: 0

2.3.2 Building Construction Phase Assumptions

- General Building Construction Information

Building Category: Office or Industrial

Area of Building (ft²): 300

Height of Building (ft): 12

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	4
Forklifts Composite	2	6
Tractors/Loaders/Backhoes Composite	1	8

- Vehicle Exhaust

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

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

- 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

2.3.3 Building Construction Phase Emission Factor(s)

- 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	0.0754	0.0013	0.5027	0.3786	0.0181	0.0181	0.0068	128.79
Forklifts Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0258	0.0006	0.1108	0.2145	0.0034	0.0034	0.0023	54.454
Tractors/Loaders/Backhoes Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0364	0.0007	0.2127	0.3593	0.0080	0.0080	0.0032	66.879

- 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

2.3.4 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

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

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

VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)
BA: Area of Building (ft²)
BH: Height of Building (ft)
(0.42 / 1000): Conversion Factor ft³ to trips (0.42 trip / 1000 ft³)
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 (ft²)
BH: Height of Building (ft)
(0.38 / 1000): Conversion Factor ft³ to trips (0.38 trip / 1000 ft³)
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

2.4 Architectural Coatings Phase

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

2.4.1 Architectural Coatings Phase Timeline Assumptions

- Phase Start Date

Start Month: 5
 Start Quarter: 1
 Start Year: 2023

- Phase Duration

Number of Month: 2
 Number of Days: 0

2.4.2 Architectural Coatings Phase Assumptions

- General Architectural Coatings Information

Building Category: Non-Residential
 Total Square Footage (ft²): 1440
 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	HDTV	LDDV	LDDT	HDDV	MC
POVs	50.00	50.00	0	0	0	0	0

2.4.3 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
HDTV	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 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 (ft²)
- 800: Conversion Factor square feet to man days (1 ft² / 1 man * day)

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

V_{POL}: Vehicle Emissions (TONs)

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

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 (ft²)
2.0: Conversion Factor total area to coated area (2.0 ft² coated area / total area)
0.0116: Emission Factor (lb/ft²)
2000: Conversion Factor pounds to tons

APPENDIX D

ERP SITE SUMMARIES

Site 16:

Clean up managed by the Defense Logistics Agency (DLA). POC: Ms. Jeanne Rector, 8725 John J. Kingman Road, Suite 2941, Ft. Belvoir, VA 22060-6220; phone: (571) 767-8305.

Both soil and groundwater are contaminated with petroleum products.

Requirements for Handling of Contaminated Media

Dewatering on Contaminated Sites. Produced groundwater is not to be discharged back to the site. The Contractor must contain and test all removed groundwater, and share test results with 6 CES/CEVR prior to any action. Based on the test results, the Contractor has the following options:

1. If the test results are below FDEP Groundwater Cleanup Target Levels (GCTLs), the Contractor may discharge the groundwater to stormwater drainage system in accordance with the requirements of the FDEP;
2. If the test results are above FDEP GCTLs, the contaminated groundwater must be transported off-site for disposal/treatment;

Groundwater Monitoring Well Procedures:

1. The government has tried to identify as many wells as possible, however, more wells may exist in the project area than are shown in the MacDill GeoBase system. Therefore, the contractor must survey the site prior to start of work for exact locations of all wells. Great care must be taken to protect and not damage all the wells found in the project area in accordance with FAR 52.236-9. If any of these wells are damaged during this project, it is the contractor's responsibility to either repair or abandon and reinstall the well in accordance with the MacDill AFB Basewide Environmental Restoration Work Plan, at their expense. The determination as to whether the well can be repaired or must be properly abandoned and a new well installed will be made by MacDill AFB Environmental Restoration Personnel. Appendix A of the MacDill AFB Basewide Environmental Restoration Work Plan, Standard Operating Procedures (SOP) Numbers 4 and 6 are attached to this specification. SOP Number 4 is Investigation Derived Waste (IDW) Management and SOP Number 6 is Well Installation, Development, and Abandonment Procedures.
2. If the work is such that damage to a well is unavoidable, the well must be properly abandoned prior to construction activities and a new well installed upon completion of construction activities at the contractor's expense. Groundwater monitoring well abandonment and installation shall be performed in accordance with procedures mentioned above. The contractor shall coordinate the well abandonment and reinstallation activities with MacDill AFB Environmental Restoration Personnel (ERP) to ensure monitoring requirements and schedules are acceptable to regulators before construction activities take place. MacDill AFB ERP will determine the location of any replacement wells to be installed.

Site Summary: Site SS-C505

Environmental Restoration Program, MacDill AFB, FL

Site ID: Site SS-C505 (SS505)

Site Name: Facility 931-AAFES Service Station

Site Acreage: 2.2 acres

Buildings on Site: 931

Monitoring Wells on Site: None

Site Status: Long Term Monitoring

Institutional Controls: Land Use Controls for soil and groundwater with no monitoring



Contaminants of Concern (CoCs):

Groundwater: None

Soils: Arsenic

Surface Water: None

Sediments: None

Point of Contact:

Tish Matty, Program Manager
 6 CES/CEVR
 7621 Hillsborough Loop Dr. (Bldg 30)
 MacDill AFB, FL 33621
 P: 813-828-0776
 C: 813-833-1997

Physical Setting:

The AAFES Service Station (SS-C505 (F931)) is located in an industrial portion of the base and is surrounded by the Base Exchange to the east, a grassy lot and Burger King to the north, a car wash to the west, and an empty grass lot to the south. The site encompasses the service station, an asphalt parking lot, and the grassy area to the north.

Site History:

The AAFES Gas Station, Facility 931 (approximately 2.2 acres), is located in an industrial portion of the base (Figure 24-1) and is surrounded by the Base Exchange to the east, a grassy lot and Burger King to the north, a car wash to the west, and an empty grass lot to the south. The site encompasses the service station, an asphalt parking lot, and the grassy area to the north. Based on review of construction reports, historical aerial photographs, and interviews with base personnel, Site SS-C505 (F931) was placed into use for vehicle fueling and repair service operations in April 1997. Three double-walled, 12,000 gallon fuel underground storage tanks (UST) were installed at the north east corner of the property to facilitate vehicle fueling operations. The tanks were constructed with spill buckets as well as vapor recovery buckets to provide containment of spilled fuels during tanker off-loading. In March 2007, deterioration of the spill/vapor recovery buckets was observed by service station personnel during fuel off-loading operations. In April 2007 the single wall spill buckets on three 12,000 gallon USTs were replaced with double wall stainless steel buckets. During replacement, one sample was collected from soil surrounding the buckets. Results of the soil samples were submitted to the Environmental Protection Commission (EPC), Hillsborough County in Jul 2007. In a letter dated September 5, 2007, the EPC requested that a site assessment be performed at the site. A Site Assessment Work Plan was submitted to FDEP in Jun 2008 and approved July 22, 2008. Soil borings were collected from January 12, 2009 through May 19, 2010 to evaluate the nature and extent of petroleum and arsenic contamination at the site. A Site Assessment and Interim Measure Report (3E Consultants, Inc.) recommended No Further Action with Controls based on the absence of groundwater contamination, the absence of evidence of arsenic contamination leaching into the groundwater, and all remaining arsenic-contaminated site soils located beneath the paved portions of the site. FDEP issued a conditional Site Rehabilitation Completion Order on 20 December 2013. LUC inspections have been conducted annually at SS505 since the Conditional SRCO was issued.

Remedial Actions to Date:

January 17, 2011 through January 20, 2011 soil with arsenic concentrations greater than the residential Soil Cleanup Target Levels (SCTL) in unpaved areas was excavated and transported to a disposal facility.

Land Use Control Surveillance

LUC inspections have been conducted annually at SS505 since the LUCIP was approved. Annual LUC surveillance at SS505 was performed on January 25, 2021. The site is restricted to nonresidential use. The site was inspected for changes in land use; no changes in land use from the previous inspection in 2020 were observed:

- No drinking water or irrigation wells were identified on the site.
- No residential development has occurred at the site or within the LUC boundaries identified in the LUCIP (3E, 2012).
- No unauthorized land use changes or activities have occurred in the last year.
- No requests for land use changes have been made.

SS505 (Facility 931) is classified as non-residential with land use restrictions. The area is used for vehicle fueling and maintenance operations with no immediate plans to change the use of this land. The LUCs are sufficient and effective at preventing risk to human health under the current land use.



Updated By: R Greller
Date Updated: 30 August 2021

Site Summary: Site SS092P

Environmental Restoration Program, MacDill AFB, FL

Site ID: Site SS092P

Site Name: Defense Fuel Supply Point (DFSP)

Site Acreage: NA

Buildings on Site: DFSP

Monitoring Wells on Site: 3 Wells

Site Status: Remedial Investigation

Institutional Controls: NA



Contaminants of Concern (CoCs):

Groundwater: PFOS/PFOA/PFBS

Soils: PFOS/PFBS

Surface Water:

Sediments

Point of Contact:

Kristy Snyder, Program Manager
6 CES/CEVR
7621 Hillsborough Loop Dr. (Bldg 30)
MacDill AFB, FL 33621
P: 813-828-0776
C: 813-716-4293

Physical Setting:

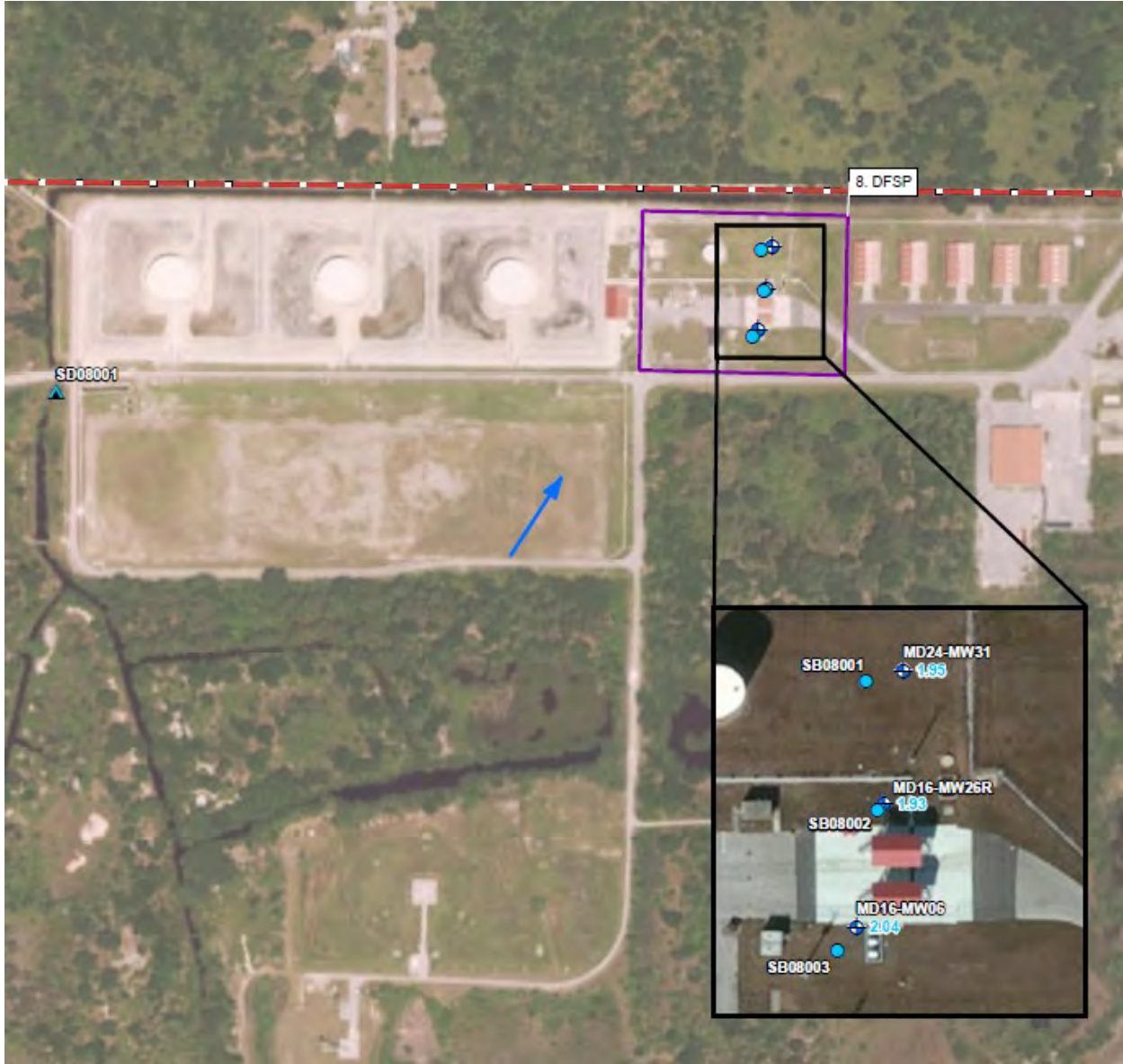
Located in the Northeast section of base along the perimeter.

Site History:

A lightning strike in 2015 triggered the AFFF fire suppression system and a release of 40 to 50 gallons of AFFF onto the loading rack ramp, where it overflowed onto grassy areas north and south of the loading ramp.

PFOS in soil was detected at concentrations below the USEPA RSL in all three borings, with the highest concentrations in subsurface soils at SB08002. PFOA in soil was detected below the USEPA RSL in one boring (subsurface soil at SB08002). PFBS in soil was detected in two of the three borings at concentrations below the USEPA RSLs, with the highest concentrations in subsurface soils at SB08002. PFOS, PFOA, and PFOS+PFOA in groundwater exceeded the USEPA HA values in each of the three monitoring wells, while PFBS was detected at concentrations below the USEPA Tap Water RSL in each of the three wells. PFOS was detected in sediment at concentrations below the USEPA RSL, while PFOA was not detected.

Remedial Actions to Date:



Updated By: R Greller
Date Updated: 30 August 2021

Site Summary: Site GR972

Environmental Restoration Program, MacDill AFB, FL

Site ID: Site GR972

Site Name: Former Grenade/
Skeet Range

Site Acreage: NA

Buildings on Site: USAR Center/ Aviation Support Facility

Monitoring Wells on Site: NA

Site Status: Remedial Investigation

Institutional Controls: NA



Contaminants of Concern (CoCs):

Groundwater:

Soils: PAHs, Lead

Surface Water:

Sediments

Point of Contact:

Kristy Snyder, Program Manager
6 CES/CEVR
7621 Hillsborough Loop Dr. (Bldg 30)
MacDill AFB, FL 33621
P: 813-828-0776
C: 813-716-4293

Physical Setting:

Located Southeast of the runway, was constructed in 1990 and was closed in 2017.

Site History:

The skeet range and practice grenade range is located on the north side of Southshore Road in the southwestern portion of MacDill AFB. It was constructed in 1990 and closed in August of 2017. The site was validated in May of 2020. The purpose of the SI was to compare surface soil concentrations of lead and polycyclic aromatic hydrocarbons (PAHs) to commercial/industrial soil cleanup target levels for selected areas within the skeet and practice grenade range site and to evaluate how the historic use of the site may impact future use as a helicopter bed down area.

Worker exposures to potentially contaminated soils and soil dust should be prevented. Construction work at the skeet and grenade range site should be conducted under the auspices of a Health and Safety Plan and Activity Hazard Analysis that meets Occupational Safety and Health Administration requirements as presented in 29 CFR Parts 1910 and 1926.

This site is under the ORC contract and will have an RI, FS, PP, and ROD to be conducted between 2021—2031.

Remedial Actions to Date:



Updated By: R Greller
Date Updated: 30 August 2021

APPENDIX E

PUBLIC NOTICE DOCUMENTS

Tampa Bay Times
Published Daily

STATE OF FLORIDA
COUNTY OF Pinellas, Hillsborough, Pasco,
Hernando Citrus

} ss

Before the undersigned authority personally appeared **Deirdre Almeida** who on oath says that he/she is **Legal Advertising Representative** of the **Tampa Bay Times** a daily newspaper printed in St. Petersburg, in Pinellas County, Florida; that the attached copy of advertisement, being a Legal Notice in the matter **RE: Notice of Floodplain** was published in **Tampa Bay Times: 11/24/21** in said newspaper in the issues of **Tampa Bay Times\Local B\Full Run**

Affiant further says the said **Tampa Bay Times** is a newspaper published in Pinellas, Hillsborough, Pasco, Hernando Citrus County, Florida and that the said newspaper has heretofore been continuously published in said Pinellas, Hillsborough, Pasco, Hernando Citrus County, Florida each day and has been entered as a second class mail matter at the post office in said Pinellas, Hillsborough, Pasco, Hernando Citrus County, Florida for a period of one year next preceding the first publication of the attached copy of advertisement, and affiant further says that he/she neither paid not promised any person, firm or corporation any discount, rebate, commission or refund for the purpose of securing this advertisement for publication in the said newspaper.

NOTICE FOR EARLY PUBLIC REVIEW OF A PROPOSED ACTIVITY IN THE 100-YEAR FLOODPLAIN

The Air Force is inviting public input on any practicable alternatives for a proposed activity within the 100-year floodplain. The Proposed Action is expansion of the base sanitary sewer system to areas west of the MacDill Air Force Base runway. This notice is required by Section 2(a)(4) of EO 11988, Floodplain Management, and has been prepared and made available to the public by the Air Force in accordance with 32 Code of Federal Regulations, Part 989.24(c) and Air Force Manual 32-7003 for actions proposed in a floodplain.

Wastewater treatment in areas west of the MacDill runway is currently accomplished by multiple septic systems near existing facilities. The proposed project would construct approximately 12,900 linear feet of new force main and service laterals, along with several new lift stations, to provide a wastewater collection system for facilities west of the runway. The new wastewater collection system would be connected to the existing collection system east of the runway allowing wastewater to be conveyed to the base wastewater treatment plant where it would receive tertiary treatment. Upon completion of the new sanitary sewer system west of the runway, the existing septic systems in this area of the base would be demolished.

The public comment period will run for 30 days past the published date of this notice. Address written comments to 6 ARW Public Affairs, 8208 Hangar Loop Drive, Suite 14, MacDill AFB, FL 33621-5502 or via email to 6.arw.pa@us.af.mil. The telephone number is (813) 828-2215. Comments must be received by 15 January 2022.

11/24/2021 0000196329-01

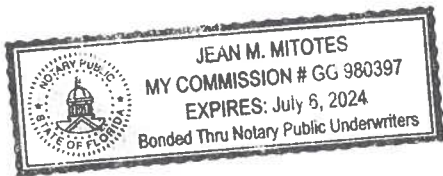
Signature Affiant

Sworn to and subscribed before me this **11/24/2021**

Signature of Notary Public

Personally known or produced identification

Type of identification produced _____



LEGAL NOTICE

NOTICE OF PUBLIC HEARING

The Pasco County Board of County Commissioners proposes to adopt the following:

AN ORDINANCE AMENDING CHAPTER 2, ARTICLE V, DIVISION 3, SECTIONS 2-222 AND 2-223, OF THE PASCO COUNTY CODE OF ORDINANCES RELATING TO THE COMMISSION ON THE STATUS OF WOMEN; PROVIDING FOR ADDITIONAL TEXT AMENDMENTS AS NECESSARY FOR INTERNAL CONSISTENCY; PROVIDING FOR A REPEALER, SEVERABILITY, AND AN EFFECTIVE DATE.

On Tuesday, December 7th, 2021, at 1:30 pm, the Pasco County Board of County Commissioners will hold an adoption public hearing at the **West Pasco Government Center, Board Room, 8731 Citizens Drive, New Port Richey, Florida.** Information concerning this matter will be on file and available for examination by appointment only in the office of County Administration, West Pasco Government Center, 8731 Citizens Drive, Suite 350, New Port Richey, Florida 34654, or anytime on our website: www.pascocountyfl.net. To make an appointment or for further information, you may call 727-847-2411, extension 8440. All interested parties may participate in the public hearing and be heard. To learn how to participate in this hearing virtually, which requires advance registration, please visit <https://www.pascocountyfl.net/4179/Public-Comment-Options>.

Any person desiring to appeal any decision made by the Pasco County Board of County Commissioners with respect to any matter considered at any hearing will need a record of the proceedings and may need to ensure that a verbatim record of the proceedings is made which includes the testimony and evidence upon which the appeal is to be based. For meetings, persons may obtain a verbatim record of the proceeding by contacting the Clerk and Comptroller's Office, East Pasco Government Center, 14326 6th Street, Suite 201, Dade City, Florida 33523-3414; or at (352) 521-4345. For questions or inquiries about this meeting, members of the public can reach out to the County's Customer Service Center (727) 847-2411 or County Administration (727) 847-8115 or visit www.mypasco.net. To view the Board of County Commissioners Agenda, please visit <https://www.pascocountyfl.net/6/Pasco-Agendas-and-Minutes>.

If you are a person with a disability who needs any accommodation in order to participate in this proceeding, you are entitled, at no cost to you, to the provision of certain assistance. Please contact the County's Human Resources Department, Internal Services Building, 7536 State Street, New Port Richey, Florida 34654, (727) 847-8030 (V) at least 7 days before the public hearing, or immediately upon receiving this notification if the time before the public hearing is less than 7 days; if you are hearing or voice impaired, call 711.

PASCO COUNTY BOARD OF COUNTY COMMISSIONERS

11/24/2021 0000196065-01

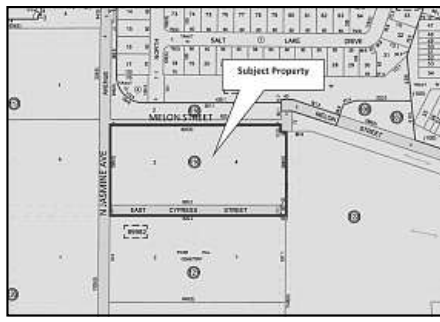
LEGAL NOTICE

NOTICE OF PROPOSED AMENDMENT TO THE OFFICIAL ZONING ATLAS OF THE CITY OF TARPON SPRINGS

The City of Tarpon Springs, Florida, proposes to adopt the following Ordinance:

ORDINANCE NO. 2021-26

AN ORDINANCE OF THE CITY OF TARPON SPRINGS, FLORIDA AMENDING THE OFFICIAL ZONING MAP OF THE CITY OF TARPON SPRINGS, FLORIDA, FOR 4.69 ACRES, MORE OR LESS, OF REAL PROPERTY LOCATED AT THE SOUTHEAST CORNER OF MELON STREET AND N. JASMINE AVENUE, FROM ZONING DESIGNATION R-100 (SINGLE FAMILY RESIDENTIAL) TO ZONING DESIGNATION RPD (RESIDENTIAL PLANNED DEVELOPMENT); APPROVING PRELIMINARY PLANNED DEVELOPMENT FOR NORTH LAKE TRAIL RESIDENTIAL PLANNED DEVELOPMENT (APPLICATION #21-134); PROVIDING FOR WAIVERS OF DESIGN REQUIREMENTS OF THE LAND DEVELOPMENT CODE; PROVIDING FOR FINDINGS; AND PROVIDING AN EFFECTIVE DATE.



Public Hearings on the proposed ordinance will be held before the Planning & Zoning Board on

Monday, December 13, 2021 at 7:00 P.M., and,

before the **Board of Commissioners** on the following dates:

Tuesday, January 11, 2022 at 7:30 P.M. (1st Reading)

Tuesday, January 25, 2022 at 7:30 P.M. (2nd Reading)

ALL PUBLIC HEARINGS WILL BE HELD IN THE CITY HALL AUDITORIUM, 324 EAST PINE STREET, TARPON SPRINGS, FLORIDA.

Said hearings may be continued from time to time pending Adjournment. All interested parties are invited to attend these meetings to express your views or to present facts in the case. If a person decides to appeal any decision made by the Board of Commissioners with respect to any matter considered at these meetings or hearings, he will need a record of the proceedings, and that, for such purposes, he may need to ensure that a verbatim record of the proceedings is made, which record includes the testimony and evidence upon which the appeal is to be based.

Written comments may be addressed to the Planning & Zoning Department, (Phone (727) 942-5611), City of Tarpon Springs, P.O. Box 5004, Tarpon Springs, Florida 34688-5004. Written comments will become a part of the record. Materials related to this ordinance, including the complete legal description of the subject property by metes and bounds, are available for inspection. Persons wishing to participate in the hearing or receive more information may contact the Planning & Zoning Department during City Hall business hours at (727) 942-5611, or visit the City's web site at www.ctsfl.us. Any person with a disability requiring reasonable accommodation in order to participate in these meetings should call (727) 942-5611 or FAX a written request to (727) 943-4651.

PLEASE REFERENCE APPLICATIONS #21-134

11/24/2021 0000196118-01

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0000189437-01

LEGAL NOTICE

NOTICE FOR EARLY PUBLIC REVIEW OF A PROPOSED ACTIVITY IN THE 100-YEAR FLOODPLAIN

The Air Force is inviting public input on any practicable alternatives for a proposed activity within the 100-year floodplain. The Proposed Action is expansion of the base sanitary sewer system to areas west of the MacDill Air Force Base runway. This notice is required by Section 2(a)(4) of EO 11988, Floodplain Management, and has been prepared and made available to the public by the Air Force in accordance with 32 Code of Federal Regulations, Part 989.24(c) and Air Force Manual 32-7003 for actions proposed in a floodplain.

Wastewater treatment in areas west of the MacDill runway is currently accomplished by multiple septic systems near existing facilities. The proposed project would construct approximately 12,900 linear feet of new force main and service laterals, along with several new lift stations, to provide a wastewater collection system for facilities west of the runway. The new wastewater collection system would be connected to the existing collection system east of the runway allowing wastewater to be conveyed to the base wastewater treatment plant where it would receive tertiary treatment. Upon completion of the new sanitary sewer system west of the runway, the existing septic systems in this area of the base would be demolished.

The public comment period will run for 30 days past the published date of this notice. Address written comments to 6 ARW Public Affairs, 8208 Hangar Loop Drive, Suite 14, MacDill AFB, FL 33621-5502 or via email to 6.arw.pa@us.af.mil. The telephone number is (813) 828-2215. Comments must be received by 15 January 2022.

11/24/2021 0000196329-01

LEGAL NOTICE

CITY OF LARGO NOTICE OF PUBLIC HEARING

NOTICE IS HEREBY GIVEN that the Largo City Commission will hold a public hearing at their regularly scheduled meeting at **6:00 pm on Tuesday, December 7, 2021** in the Commission Chamber at Largo City Hall, 201 Highland Avenue, Largo, Florida to consider the following:

ORDINANCE NO. 2022-04

AN ORDINANCE OF THE CITY OF LARGO, FLORIDA, APPROVING PURSUANT TO CITY CHARTER SECTION 2.12(A)(5) THE LEASE FOR ONE FIVE YEAR TERM FOR USE OF APPROXIMATELY 22,500 SQUARE FEET OF LAND LOCATED AT THE CITY'S STARKEY ROAD RECYCLING CENTER SITE AT 1551 STARKEY ROAD TO THE CITY OF INDIAN ROCKS BEACH FOR OPERATION OF A SOLID WASTE OPERATIONS CENTER AND STORAGE FACILITY; PROVIDING FOR AN EFFECTIVE DATE.

ORDINANCE NO. 2022-05

AN ORDINANCE OF THE CITY OF LARGO, FLORIDA, AMENDING THE FY 2021 BUDGET ADOPTED BY RESOLUTION NO. 2279 BY APPROPRIATING EXPENDITURES IN THE AMOUNT OF \$1,900,000 WITHIN THE ENVIRONMENTAL SERVICES DEPARTMENT WASTEWATER FUND FOR ADDITIONAL PROGRAM EXPENDITURES; PROVIDING FOR AN EFFECTIVE DATE.

ORDINANCE NO. 2022-06

AN ORDINANCE OF THE CITY OF LARGO, FLORIDA, AMENDING THE FY 2021 BUDGET ADOPTED BY RESOLUTION 2279 BY APPROPRIATING EXPENDITURES IN THE AMOUNT OF \$120,000 WITHIN THE HUMAN RESOURCES RISK SERVICES FUND BUDGET; AND APPROPRIATING EXPENDITURES IN THE AMOUNT OF \$95,000 IN THE CITY ATTORNEY'S GENERAL FUND; PROVIDING AN EFFECTIVE DATE.

The City Commission may, with respect to any matter considered at this meeting, make a determination on the matter that evening or may continue the meeting wholly or in part to another date. If the public hearing is continued by the City Commission, no further notice of continuance will be sent or published. Interested parties may appear at the meeting and be heard with respect to the proposed ordinance. Copies of the ordinance and related materials are available for public inspection at either the Community Development Department or the City Clerk's Office, City Hall, 201 Highland Avenue, Largo, Florida, during regular business hours (8:00 am - 5:00 pm), at the Largo Public Library, 120 Central Park Drive or on the City's website at www.largo.com. For further information, call 727-587-6749. Any person who decides to appeal any decision of the City Commission with respect to any matter considered at this meeting will need a record of the proceedings and for such purpose may need to ensure that a verbatim record of the proceedings is made, which record shall include the testimony and evidence upon which the appeal is to be based. The City of Largo is committed to providing reasonable accommodation for access for the disabled. Anyone needing assistance with regard to this meeting should contact the City Clerk's office at 587-6710 or the Library T.D.D. Line 587-6778 at least two days prior to the meeting.

Diane L. Bruner, CMC
City Clerk

11/24/2021 0000196066-01

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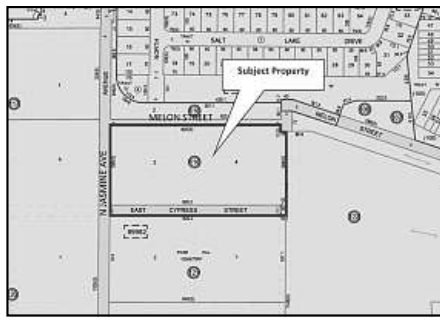
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PLEASE REFERENCE APPLICATIONS #21-134

11/24/2021 0000196118-01

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PUBLIC NOTICE

UNITED STATES AIR FORCE

Notice of Availability

Draft Environmental Assessment (EA) for Expansion of Sanitary Sewer System at MacDill Air Force Base

The United States Air Force (USAF) invites public review and comment on a USAF Environmental Impact Analysis Process document evaluating the expansion of the existing sanitary sewer system to the west side of the MacDill AFB. The project would be implemented by base wastewater utility provider, Florida Government Utility Authority. Expansion of the sanitary sewer system to the west would allow the elimination of the septic systems that have historically serviced facilities west of the runway. The project would involve the installation of several thousand feet of below ground force main and gravity drain piping, multiple lift stations and grinder stations, and associated appurtenances. The project would be accomplished in multiple phases over several years. The newly constructed wastewater network west of the runway would send wastewater to the base wastewater plant for treatment.

The USAF invites public participation through the solicitation of comments on the Draft EA. Comments are invited and will be accepted for 30 days. The Draft EA is available on the MacDill AFB public site, <http://macdill.af.mil/>, and a hard copy is available at the following local library:

John F. Germany Public Library
900 North Ashley Drive
Tampa, Florida 33606

Provide written comments to 6 ARW Public Affairs, 8209 Hangar Loop Drive, Suite 14, MacDill AFB, Florida 33621-5502 or via email to 6.arw.pa@us.af.mil, no later than 30 days from the date of publication of this notice. The contact telephone number is (813) 828-2215.