



**Federal Aviation  
Administration**

**Draft Environmental Assessment  
Maintenance, Repair, and Overhaul Facility Phase Two—  
Pensacola International Airport (PNS)**

December 2021

This Environmental Assessment becomes a Federal Document when evaluated, signed, and dated by the responsible FAA official.

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Responsible FAA Official

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Date

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## Acronyms

ACS	American Community Survey
AEDT	Aviation Environmental Design Tool
Airport	Pensacola International Airport
Airport Sponsor	City of Pensacola
ALP	Airport Layout Plan
AMSD	Approximate Minimum Search Distance
AOA	Airport Operations Area
APE	Area of Potential Effects
ASTM International	American Society for Testing and Materials International
BMP	Best Management Practice
CAA	Clean Air Act
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
City	City of Pensacola
CO <sub>2</sub>	Carbon Dioxide
CTL	Cleanup Target Level
dba	A-weighted decibel
DNL	Day Night Average Sound Level
EA	Environmental Assessment
ECUA	Emerald Coast Utility Authority
EPA	U.S. Environmental Protection Agency
ESA	Environmental Site Assessment
FAA	Federal Aviation Administration
FBO	Fixed Base Operator
FCMP	Florida Coastal Management Program
FDEP	Florida Department of Environmental Protection
FDOT	Florida Department of Transportation
FEMA	Federal Emergency Management Agency
FFWCC	Florida Fish and Wildlife Conservation Commission
FIRM	Flood Insurance Rate Map
FLUCFCS	Florida Land Use, Cover, and Forms Classification Systems
FNAI	Florida Natural Areas Inventory
GHG	Greenhouse Gas

IPaC	Information for Planning and Consultation
LOS	Level of Service
MBTA	Migratory Bird Treaty Act
MRO	Maintenance, Repair, and Overhaul
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NOI	Notice of Intent
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Places
NWFWMD	Northwest Florida Water Management District
RCRA	Resource Conservation and Recovery Act
REC	Recognized Environmental Condition
SF	Square foot
SHPO	State Historic Preservation Office
SQG	Small-Quantity Hazardous Waste Generator
SWPPP	Stormwater Pollution Prevention Plan
SY	Square yard
THPO	Tribal Historic Preservation Office
TSA	Transportation Security Administration
USC	United States Code
USDOT	U.S. Department of Transportation
USFWS	U.S. Fish and Wildlife Service
VT MAE	VT Mobile Aerospace Engineering, Incorporated



## Chapter 1 INTRODUCTION

### 1.1 Introduction

The City of Pensacola, Florida (City or Airport Sponsor) proposes to develop and operate an aircraft maintenance, repair, and overhaul (MRO<sup>1</sup>) facility on the northwest side of the Pensacola International Airport (the Airport). This facility will expand similar MRO facilities that already exist on the northeast side of the Airport leased to and operated by VT Mobile Aerospace Engineering, Incorporated (VT MAE), hereafter referred to as the MRO Operator. The City seeks an unconditional Airport Layout Plan (ALP) approval.<sup>2</sup> The federal actions associated with ALP approval require that the FAA consider environmental impacts in accordance with the National Environmental Policy Act of 1969 (NEPA) and Federal Aviation Administration (FAA) guidance contained in FAA Order 5050.4B, *NEPA Implementing Instructions for Airport Actions*, and FAA Order 1050.1F, *Environmental Impacts: Policies and Procedures*. This Environmental Assessment (EA) presents the environmental impacts of the Proposed Development Project to comply with the NEPA process.

### 1.2 Airport Description and Background

The Airport is owned and operated by the City. The Airport provides commercial air service, air cargo service, general aviation (business and recreational flights), and military flight training.<sup>3</sup> The Airport service area includes the City, Escambia County, Santa Rosa County, and portions of the northwestern Florida Panhandle and southwest Alabama. The location of the Airport is shown in **Figure 1-1** (see **Appendix A**, which contains all figures in this EA).

The number of yearly aircraft take-offs and landings and the number of passengers who board a plane each year for recent and future years are presented in **Table 1-1**.

*Table 1-1: Aircraft Take-Offs and Landings and Passenger Boardings*

Year	Annual Aircraft Take-Offs & Landings	Annual Passenger Boardings
<b>Historical<sup>a</sup></b>		
2004	127,848	726,842
2009	96,515	698,687
2014	105,693	756,102
2019	125,235	1,084,276

<sup>1</sup> Based on the project proposed by the Airport Sponsor and common industry use of the acronym, the use of “MRO” in this EA refers to maintenance, repair, and overhaul activities involving commercial service aircraft.

<sup>2</sup> The City is requesting unconditional environmental approval only for the portion of the ALP depicting the MRO facilities and related improvements.

<sup>3</sup> Pensacola Regional Airport Profile. Continuing Florida Aviation System Planning Process. Florida Department of Transportation. September 2011.

Year	Annual Aircraft Take-Offs & Landings	Annual Passenger Boardings
<b>Forecast<sup>b</sup></b>		
2024	119,172	1,100,231
2029	126,817	1,321,733
2034	132,392	1,458,763

Source: <sup>a</sup>FAA, APO Terminal Area Forecast Detail Report (TAF), Issued January 2020; <sup>b</sup>FAA APO TAF Detail Report, Issued July 2021

### 1.3 Description of the Proposed Development Project

The Proposed Development Project site is in Escambia County, Florida, with construction concentrated in the northwest quadrant of the Airport, as seen in **Figure 1-1 (Appendix A)**. The Proposed Development Project site is contained entirely within existing Airport property, but was previously a commercial and residential mixed-use neighborhood.

The Proposed Development Project is to build Phase Two of an MRO campus at the Airport, providing two additional MRO hangars, a support services center, and administration offices, as well as additional parking spaces for temporary aircraft. **Figure 1-2 (Appendix A)** shows the conceptual development plan. The Proposed Development Project will include the following elements:

- Public-use aprons required for accessing and supporting the MRO hangars, general Airport overflow, and overnight commercial aircraft parking\*
- A 75-foot-wide aircraft taxiway used to connect new aprons<sup>4</sup> to Taxiway A\*
- Aircraft wash-rack apron to support proposed MRO functions\*
- Hangar 3—200,000-square-foot aircraft hangar\*
- Hangar 4—200,000-square-foot aircraft hangar\*
- Support Services Center—50,000-square-foot distribution facility
- Office Space—3-story, 120,000-square-foot administrative office space
- Automobile entrance and exit roadways, including intersection improvements, and auto parking areas used for supporting facility operations
- Outside lighting for the roadways, parking lot, hangars, and aprons

<sup>4</sup> For purposes of this section, “apron” is a defined area on an airport intended to accommodate aircraft for purposes of loading or unloading passengers or cargo, refueling, parking, or maintenance. Duke, R. n.d. *Standardizing Labeling of Parking Areas on Airport Diagrams* [PowerPoint slides]. Aircraft Owners and Pilots Association. Retrieved from [https://www.faa.gov/air\\_traffic/flight\\_info/aeronav/acf/media/Presentations/18-01-RD323-AOPA-Parking-RD-Presentation.pdf](https://www.faa.gov/air_traffic/flight_info/aeronav/acf/media/Presentations/18-01-RD323-AOPA-Parking-RD-Presentation.pdf).

- New airport perimeter fence and gates\*
- Utilities to the site (i.e., electric, natural gas, water, sewer, and communications)
- Site preparation, including removal of existing pavement, clearing and grubbing, and grading
- New stormwater management systems and improvements to existing stormwater management systems

The FAA has ALP approval authority for those elements noted with an asterisk (\*) in the list above.

It is anticipated that each aircraft maintenance hangar will hold four single-aisle-wide aircraft, such as the Airbus A319, Airbus A320, and the Boeing 757, or they could hold two double-aisle-wide aircraft, such as the Boeing 767 or Boeing 777.

The Proposed Development Project was designed to be technically feasible and cost effective, and to remain consistent with the land use plan for the area. The ALP shows the project site as designated for aeronautical development. Therefore, there is no conflict with the planned development as depicted on the ALP, local land use plan, or other planning studies for the Airport.

The Proposed Development Project site is next to the existing cargo apron and aircraft would have access to taxiways and runways via a proposed connector taxiway. It is directly across the airfield from existing MRO facilities, operated by the current MRO services provider. Current airfield operations and airport design standards were considered in siting the project on the northwest part of the airfield. This location allows the Airport to group large aircraft activities with similar facilities in the same area (i.e., north and west sides of the airfield), which keeps the airfield efficient by grouping similar-sized aircraft in the same traffic pattern. The location of the Proposed Development Project also is more efficient for ground support services, such as fueling.

Safety concerns are also minimized by grouping large commercial aircraft operations into the northwest part of the airfield. When general aviation aircraft (e.g., small single-engine private aircraft) and large commercial aircraft operate in the same areas, safety issues can result. For example, small aircraft (parked or taxiing) can be affected by jet blast from large aircraft.

Construction would involve land clearing and site grading including approximately 13.17 acres of upland hardwood forests. The Proposed Development Project also would demolish approximately 25,275 square yards (SY) of vehicle pavement, 10,809 SY of airfield pavement<sup>5</sup>, and two mini-warehouse facilities totaling 110,187 square feet (SF). Parcels within the Proposed Development Project were bought by the Airport between 1994 and 2018. No additional land purchase would be required, and no residences would be relocated; however, one business would have to be relocated that currently leases facilities from the Airport.

The infrastructure required to build and operate the Proposed Development Project—such as access to utilities, communications, and power—is readily available within 200 linear feet of the project site.

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<sup>5</sup> Estimates assume all existing airfield pavement will be demolished; however, final design may result in some pavement being left in place.

Access to the project site for employees would be provided from Tippin Avenue at its intersection with Underwood Avenue, which would be improved and signalized by the City in the future. Additional access would be provided by two right-in, right-out driveways north and south of the signal on Tippin Avenue. The Proposed Development Project would require minor improvements to two roadways. This includes redesign of center lane striping on the southbound left turn lane of Tippin Avenue and adding 60-feet of westbound turn lane on Underwood Avenue at 9th Avenue. On-airport vehicle traffic would not be affected by the Proposed Development Project as it would have a dedicated entrance and exit separate from on-airport traffic. Access for semi-trucks would not require improvements to Tippin Avenue as it already serves large truck traffic.

The Transportation Security Administration (TSA) issued its Final Rule in 2014 covering aircraft repair station security.<sup>6</sup> The rule subjects MRO facilities located on or adjacent to an airport to security measures that prevent the “unauthorized operation of large aircraft capable of flight left unattended.” Examples of security measures include but are not limited to: (1) maintaining a record of everyone with access to the aircraft, (2) ensuring aircraft and hangars are secured, and (3) blocking the path of the aircraft so it cannot be moved. The rule also allows TSA to issue additional security measures to respond to a threat assessment or specific threat against civil aviation. The Proposed Development Project’s location, design, and procedures will be consistent with TSA aircraft repair station security requirements.

#### **1.4 Timeframe and Funding for the Proposed Development Project**

The City will plan and design the Proposed Development Project between September 2021 and March 2023. Construction is expected to last two years and is currently estimated to happen from June 2023 through June 2025. The City may seek to speed up this schedule if necessary, to meet Tenant needs. At this time, the City believes the MRO facility would likely be developed in three stages: one MRO hangar and support services center would be built first, followed by construction of a second hangar, and, finally, construction of the office building.

The Proposed Development Project’s development cost is estimated at \$150,950,000. The sources of funding include VT MAE (MRO Operator), Triumph Gulf Coast, Inc., the Florida Department of Transportation (FDOT), Escambia County, the City of Pensacola, and the Florida Governor’s Job Growth Fund.

#### **1.5 FAA Proposed Action**

Per Section 163 of the FAA Reauthorization Act of 2018, there is a need to distinguish the difference between the Proposed Action/Federal Action and the Proposed Development Project. In the detailed list of project components above in **Section 1.3**, project components where FAA has ALP approval authority are denoted with an asterisk. The Federal Action is unconditional approval of the PNS ALP for those project components.

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<sup>6</sup> Transportation Security Administration. 49 CFR § 1554 (2014). Retrieved from <https://www.federalregister.gov/documents/2014/01/13/2014-00415/aircraft-repair-station-security>.

### 1.6 Anticipated Impacts and Other Environmental Requirements

The Proposed Development Project is expected to increase the number of annual aircraft operations<sup>7</sup> by 20 and 40 in the years 2024 and 2029, respectively. **Table 1-2** summarizes the number of additional aircraft operations that would be generated at the Airport if the Proposed Development Project is built. More information about aircraft operations can be found in **Appendix B** of this EA. The Proposed Development Project is also expected to increase the number of surface vehicles entering and exiting the Airport. The development would staff an estimated 1,000 MRO hangar employees and 325 office-related support staff. Hangar buildings would be operated in two Monday through Friday shifts occurring from 7:00AM-3:30PM and 3:30PM-12:00AM, with a maximum of 500 MRO hangar employees for each shift. The office support staff are expected to work a traditional 8:00AM-5:00PM, Monday through Friday shift. An additional 3,793 daily trips would occur based on the addition of these employees.

*Table 1-2: Airport Annual Aircraft Operations*

Study Year	Alternatives	Annual Aircraft Operations	Change
2020	Baseline Condition	106,897 <sup>a</sup>	—
2024	No-Action Alternative	119,172 <sup>a</sup>	20
	Proposed Development Project	119,192 <sup>b</sup>	
2029	No-Action Alternative	126,817 <sup>a</sup>	40
	Proposed Development Project	126,857 <sup>b</sup>	

Sources: FAA, APO TAF Detail Report, Issued July 2021<sup>a</sup>; Atkins 2021<sup>b</sup>

The increase in aircraft operations and vehicle traffic at the Airport would affect the noise levels in the area of the Airport, but the impacts are expected to be minimal (see **Section 4.11, Noise and Noise Compatible Land Use**).

Based on a review of available databases and an on-site visit, the Proposed Development Project would not have any effect on floodplains, farmlands, wetlands, or Wild and Scenic Rivers. The Proposed Development Project would have minor effects on air quality, coastal resources, U.S. Department of Transportation (USDOT) Act Section 4(f) resources, hazardous materials, natural resources, and energy supplies. The Proposed Development Project would affect wildlife habitat and listed species, light emissions, visual setting, aircraft noise exposure, socioeconomic and secondary development, and water quality. However, these impacts were determined to not be significant.

<sup>7</sup> An aircraft operation is a take-off or landing. One aircraft visit to Pensacola equals two aircraft operations.

American Mini-Warehouses, Inc., which leases two commercial parcels from the Airport, will have to relocate as the Airport plans to end the lease prior to construction. The majority of the property is an undeveloped former residential area with only asphalt paved streets remaining, so no residential relocations would be required. The closest residential neighborhood is approximately 730 feet from the Proposed Development Project boundary, with one isolated home approximately 30 feet from the boundary.

The Proposed Development Project would positively impact the local community by increasing the local tax base through approximately 1,325 new full-time jobs with an average salary of \$44,461 annually, excluding benefits.

In addition to NEPA, other regulations and permits may be required to carry out the Proposed Development Project. **Table 1-3** provides a summary of these required permits and approvals, including the responsible lead agency.

*Table 1-3: Summary of Required Permits/Approvals*

Permit	Lead Agency	Status	Responsible Entity
<b>Federal</b>			
—	—	—	—
<b>State</b>			
General Permit	Northwest Florida Water Management District (NFWMD)	Stormwater management system modifications	City
National Pollutant Discharge Elimination System (NPDES)	Florida Department of Environmental Protection (FDEP)	Notice of Intent to Use General Permit Prior to Commencing Construction	City
Air Permit	FDEP	Air permits for certain painting activities (if required)	MRO Developer
Conservation Permit for Gopher Tortoises	Florida Fish and Wildlife Conservation Commission (FFWCC)	Development projects that require the relocation of more than 10 gopher tortoise burrows	City
<b>Local</b>			
Local Construction Permits	City of Pensacola	Local construction permits	Contractor

Source: Atkins, 2021

## 1.7 Purpose and Need

### 1.7.1 Background

The City has been planning for the development of an aircraft maintenance campus since the 1980s and slowly acquired land over time to achieve that goal. In 2018, the City built Phase One, Hangar One (**Figure 1-1, Appendix A**) of the MRO operations (currently leased to and operated by VT MAE) northeast of Runway 17/35. Hangar Two of this Phase One development is scheduled to be completed in 2022.

### 1.7.2 Airport Sponsor's Objectives

The *City of Pensacola Comprehensive Plan*<sup>8</sup> created goals for the Airport to increase development and generate positive economic and employment benefits within the City and surrounding communities. Attracting new aviation-related businesses to the Airport, especially those providing jobs, would help expand the local economy and improve employment opportunities in the community. The Proposed Development Project also would support the City's goal to keep the Airport regionally competitive by increasing activity at the Airport. Lastly, the Proposed Development Project would provide parking for aircraft.

#### 1.7.2.1 Expand Services and Increase Airport Revenue

An expanded MRO facility can provide a wider range of aviation-related services at the Airport, including servicing larger commercial aircraft. Generating positive economic and employment benefits matches goals and objectives for the Airport, as established in the *City of Pensacola Comprehensive Plan*.

The City's desire to expand services and increase airport revenue is consistent with national policy and FAA's statutory responsibilities set forth at 49 United States Code (USC) § 47101(a)(13), which states "... airports should be as self-sustaining as possible under the circumstances existing at each particular airport and in establishing new fees, rates, and charges, and generating revenues from all sources..." [emphasis added].

The MRO campus is leased to VT MAE for a 30-year term. VT MAE will pay the Airport a fair market ground rent for the use of Airport land. The ground rent is adjusted every five years to the then-current fair market value of the Airport land.

#### 1.7.2.2 Provide Parking for Aircraft

The Airport needs additional aircraft parking. It regularly receives requests to park large commercial or cargo aircraft such as the Antonov AN-124 and Boeing 747SP. To accommodate these requests under the existing conditions, the Airport occasionally must close a runway. The apron at Hangar One provides some additional parking for aircraft; however, it is across the runway from the Terminal Building. In contrast, the Proposed Development Project would be adjacent to the existing terminal. Therefore, aircraft could park on the additional apron space without needing to cross runways,

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<sup>8</sup> City of Pensacola Comprehensive Plan, Volume 1, Goals, Objectives, and Policies. City of Pensacola Community Development.

providing a safer parking option. The apron of the Proposed Development Project would be partially available for public use and the Airport can use a portion of the apron for overflow and overnight aircraft parking. Public use of the apron would be achieved by coordination with airport operations and access would be gained through Taxiway A.

### **1.7.3 Need for the Proposed Development Project**

#### *1.7.3.1 Provide Facilities Suitable for Expanded MRO Operations*

The City is now ready to develop Phase Two of the MRO campus northwest of Runway 17/35, which will include two hangars, Hangar Three and Hangar Four, at full build-out (**Figure 1-1, Appendix A**). Growing demand for state-of-the-art, operationally efficient MRO facilities and the desire to consolidate MRO operations has driven the need for Phase Two. Together, Phase One and Phase Two will accommodate growing national interest for MRO services co-located with commercial service hubs.

### **1.7.4 Purpose of the Proposed Development Project**

The purpose of the Proposed Development Project is to build an additional MRO facility at the Airport, expanding the current MRO operations to meet the needs of an existing tenant.

### **1.7.5 Requested Federal Actions**

The federal actions and approvals considered in this EA include:

Unconditional approval of the portion of the Airport Layout Plan that depicts the Proposed Development Project and its connected actions.

FAA acceptance of a NEPA analysis document and issuance of a decision document or finding is only a determination that the document satisfies applicable environmental statutes and regulations.

Similarly, FAA approval of an ALP does not indicate that the FAA will participate in the cost of any proposed development. ALP approval indicates that all existing and proposed airport development shown on the plan meets applicable FAA airport design standards or a current FAA-approved Modification of Airport Design Standards and that the proposed development is useful and efficient.



## Chapter 2 ALTERNATIVES

### 2.1 Introduction

NEPA (42 USC § 4321 et seq.) and the Council on Environmental Quality (CEQ) NEPA Regulations (40 Code of Federal Regulations [CFR] § 1500 to § 1508) require reasonable alternatives to complete a project to be examined. Alternatives to the Proposed Development Project were analyzed and those alternatives found to be reasonable were carried forward for further evaluation in this EA. The analysis was limited to developable areas within the Airport's property boundary.

### 2.2 Alternatives Evaluation Process

Alternatives were evaluated on whether they would meet the purpose and need of the Proposed Development Project, which is to build an additional MRO facility at the Airport and expanding the current MRO operations to meet the needs of an existing tenant.

Each alternative that met the purpose and need was evaluated on whether it was technically and economically feasible (i.e., consistency with land use plan; operational considerations, safety, and security concerns; business relocations; constructability; proximity to utilities and other infrastructure; and roadway access improvements) and reasonably consistent with the land use plan for the area. If an alternative was found not to match these criteria, it was not considered further. Those alternatives that remained went on to evaluation based on potential social, socioeconomic, and/or environmental resource impacts.

### 2.3 Alternatives Considered

#### 2.3.1 Proposed Development Project — Northwest Quadrant (Airport Sponsor's Preferred Alternative)

The Airport Sponsor's Preferred Alternative is the Proposed Development Project, as defined in **Section 1.3 (Description of the Proposed Development Project)** and shown in **Figure 1-2 (Appendix A)**.

The Proposed Development Project meets the purpose and need to build an additional MRO facility at the Airport, expanding the current MRO operations. The Proposed Development Project site is located within Airport property and designated for aeronautical development on the ALP. Therefore, it is consistent with land use plans and does not conflict with any planned development.

The northwest quadrant site is positioned directly across the airfield from existing MRO operations, and would allow for the grouping of similar, large aircraft activities. Grouping of similar aircraft activities increases efficiency with respect to ground support services (i.e., fueling) and reduces safety concerns associated with the mixing of large and small aircrafts. The location and design of the Proposed Development Project is also consistent with TSA aircraft repair station security requirements (**Section 1.3**).

One active business, American Mini-Warehouses, is located within the Proposed Development Project site and currently leases land from the Airport. The Proposed Development Project would require the relocation of this business. The remaining site is comprised of a former commercial and residential mixed-use neighborhood that has been cleared of structures. Construction would require the clearing and grading of approximately 13.17 acres of upland hardwood forests, as well as scattered residential street trees located within this area. The infrastructure required to build and operate the Proposed Development Project—such as access to utilities, communications, and power—is readily available and within 200 linear feet of the project site.

The Proposed Development Project would require minor improvements to one intersection and two roadways. These include adding signalization at the Underwood Avenue intersection with Tippin Avenue, redesign of center lane striping on the southbound left turn lane of Tippin Avenue, and adding 60-foot of westbound turn lane on Underwood Avenue at 9<sup>th</sup> Avenue.

### 2.3.2 Southeast Quadrant Alternative

The Southeast Quadrant Alternative, as shown in **Figure 2-1 (Appendix A)**, is in the southeast quadrant of the Airport, east of Runway 17/35, near the Runway 35 threshold and inside the secure perimeter fence of the AOA. The layout includes the same elements that are included in the Proposed Development Project. The Southeast Quadrant Alternative site is partially cleared, with the remainder of the site wooded.

The Southeast Quadrant Alternative would satisfy the purpose and need criteria by building and operating two additional MRO hangars, a support services center, and administration offices, while also providing additional apron space to park aircraft.

The Southeast Quadrant Alternative would build MRO facilities next to an existing general aviation apron and fixed base operator (FBO) facility.<sup>9</sup> This area is reserved on the PNS ALP for future development of additional general aviation facilities. Therefore, this alternative would conflict with planned development as shown on the approved ALP for the Airport, local land use plans, and other Airport planning studies (e.g., 2018 Pensacola International Airport Master Plan Update<sup>10</sup>) that have designated the southeast quadrant of the Airport's airfield to support general aviation activity.

Having a single area at the Airport to support general aviation activity promotes efficiency by grouping similar facilities and services and minimizing on-airport land use conflicts. Because this alternative would use land designated for future general aviation facility development, other areas on the airfield would need to be identified to accommodate future general aviation development. This would result in general aviation facilities being located in two or more quadrants on the airfield. When compared to the City's current plan, this would introduce inefficiencies for aircraft owners, FBOs, and other general aviation support businesses. For example, aircraft owners may have to taxi to multiple locations on the airfield to store their aircraft and purchase fuel resulting in more frequent runway crossings and cross-airport traffic.

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<sup>9</sup> Fixed base operator refers to facilities that offer private aviation services at an airport.

<sup>10</sup> Pensacola International Airport. 2018. Airport Master Plan Update. Retrieved from <http://www.pnsmasterplan.com/downloads/>.

Safety issues also may arise under the Southeast Quadrant Alternative by introducing large commercial aircraft operations into an area of the Airport that is currently used by general aviation aircraft, including small single-engine private planes. Small aircraft (parked or taxiing) can be affected by jet blast from large aircraft. Alternatively, small aircraft may be introduced into areas with air cargo activity or helicopter maintenance and flight testing, which also would present safety issues.

As previously mentioned in **Section 1.3**, the TSA issued its Final Rule in 2014 covering aircraft repair station security.<sup>11</sup> Given the requirements of the rule, this alternative will impose unnecessary burdens and operational conflicts on the existing general aviation facilities and will substantially hinder the development of new general aviation facilities in the southeast quadrant of the Airport.

Construction would involve land clearing and site grading, including approximately 31.57 acres of undeveloped upland forests. No existing buildings would need to be removed, no land would be purchased, and no businesses or residences would be relocated under this alternative. The Southeast Quadrant Alternative would have access to taxiways and runways via a proposed connector taxiway. Access to utilities, communications, and power are available at this site, with connections ranging between 1,500 to 2,500 linear feet of the project site.

Access for employees would be from Jerry L. Maygarden Road, which would have to be realigned to accommodate two parking lots. This realignment would result in the creation of approximately 0.20 miles of new roadway. Also, the on-airport access road may require improvements for the additional vehicle traffic generated by the proposed facility. Finally, intersection improvements would be needed at the intersections of Summit Boulevard and Jerry L. Maygarden Road, Scenic Highway, and Spanish Trail. Access for semi-trucks would require improvements to Summit Boulevard, which currently is not used for large truck traffic.

The Southeast Quadrant Alternative would satisfy the purpose and need criteria. However, based on inconsistency with the land use plan for the area, operational concerns, safety concerns, and potential inconsistency with TSA regulations cited above, the Southeast Quadrant Alternative was eliminated from further study in this EA.

### **2.3.3 No-Action Alternative**

With this alternative, the proposed MRO facilities would not be developed at the Airport and would not satisfy the purpose and need criteria outlined in this EA. The No-Action Alternative was not evaluated further for consistency with land use plans, operational issues, safety, property acquisition, constructability, infrastructure, roadway improvements, or consistency with regulations. However, it is retained in this EA for comparison purposes and to comply with NEPA regulations.

## **2.4 Alternatives Evaluation Results**

**Table 2-1** compares the criteria among all three alternatives evaluated.

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
<sup>11</sup> Transportation Security Administration. 49 CFR § 1554 (2014). Retrieved from <https://www.federalregister.gov/documents/2014/01/13/2014-00415/aircraft-repair-station-security>.

Table 2-1: Alternatives Comparison

Evaluation Criteria	No-Action Alternative	Proposed Development Project— Northwest Quadrant (Airport Sponsor’s Preferred Alternative)	Southeast Quadrant Alternative
Meets Purpose and Need	No	Yes	Yes
Consistency with Land Use Plan (ALP and Local Planning)	N/A	Yes	No, ALP identifies area for general aviation development only.
Operational Considerations and Safety and Security Concerns	N/A	No, large commercial aircraft operations are grouped in northwest quadrant of the Airport and is consistent with TSA aircraft repair station security requirements.	Yes, large commercial aircraft operations in an area designated for general aviation; TSA aircraft repair station security requirements will impose unnecessary burdens and operational conflicts on the existing general aviation facilities.
Business Relocations Required	N/A	Yes, will result in relocation of one business that currently leases land from the Airport.	No
Constructability	N/A	Requires clearing and grading of approx. 13.17 acres of undeveloped, forested land.	Requires clearing and grading of approx. 31.57 acres of undeveloped, forested land.
Proximity to Utilities and Other Infrastructure	N/A	Utility connections available within 200 linear feet of the site.	Utility connections available between 1,500 and 2,500 linear feet of the site.

Evaluation Criteria	No-Action Alternative	Proposed Development Project— Northwest Quadrant (Airport Sponsor’s Preferred Alternative)	Southeast Quadrant Alternative
Roadway Access Improvements	N/A	Yes, minor improvements to one intersection and two roadways.	Yes, minor improvements to three intersections. Realignment of approx. 0.20 miles of Jerry L. Maygarden Rd.; Access improvements to two roadways.
Retained for Further Analysis?	Yes	Yes	No

Source: Atkins, 2021

 Indicates reasons for elimination of alternative from further consideration in this EA

## 2.5 Conclusions

The alternatives analysis resulted in the Airport Sponsor’s Proposed Development Project and the No-Action Alternative being carried forward for further analysis in the EA.

## Chapter 3 AFFECTED ENVIRONMENT

### 3.1 Study Areas/Resources Not Affected

The Proposed Development Project site is within Escambia County, Florida, with development anticipated to occur along the northwest quadrant of the Pensacola International Airport (**Figure 3-1, Appendix A**). The Proposed Development Project would not result in impacts to farmlands, floodplains, wetlands, or Wild and Scenic River resources, as detailed in the subsections provided below.

#### 3.1.1 Farmlands

The Farmland Protection Policy Act (7 USC §§ 4201-4209) was created to minimize the unnecessary and irreversible change of farmland to nonagricultural uses that result from federal programs.<sup>12</sup> The Proposed Development Project site is in a former commercial and residential area that is categorized as an urbanized area, as seen in the 2010 Census Urban Area Reference Map: Pensacola, FL—AL (UA Code: 68482) (**Figure 3-2, Appendix A**). Based on this urbanized categorization, the Proposed Development Project is not subject to the provisions of the Federal Farmland Protection Policy Act and farmlands will not be discussed in further detail in this assessment.

#### 3.1.2 Floodplains

Floodplains are lowland areas that are susceptible to flooding. They often are categorized by flood hazard areas, which include the 100-year flood (1-percent annual chance of occurring) and the 500-year flood (0.2-percent annual chance of occurring). Executive Order 11988, Floodplain Management, 42 Federal Register 26951, (May 25, 1977) and USDOT Order 5650.2, Floodplain Management and Protection, require that FAA projects avoid floodplains when other alternatives exist.<sup>13</sup> A review of the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRMs) for Escambia County, Florida, and Incorporated Areas (Panel 430) show no floodplains within or near the Proposed Development Project site (**Figure 3-3, Appendix A**). Since the Proposed Development Project site is in an area of minimal flood hazard, no further analysis of floodplains will be provided in this assessment.

#### 3.1.3 Wetlands

Under the Clean Water Act, the U.S. Army Corps of Engineers has the authority to regulate activities in waters of the U.S., including qualifying wetland areas. The Proposed Development Project site was evaluated by a qualified wetland scientist for wetlands during the June 22-23, 2020, field visit (**Appendix C**). During this evaluation, the wetland scientist did not observe natural wetlands within the study area, but she recorded eight manmade stormwater ponds. These stormwater ponds were created from upland soils and are exempt from mitigation requirements (**Section 3.13.1**).

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<sup>12</sup> United States Department of Agriculture. n.d. Farmland Protection Policy Act. Retrieved from <https://www.nrcs.usda.gov/wps/portal/nrcs/main/national/landuse/fppa/>.

<sup>13</sup> Federal Aviation Administration. 2020. 1050.1F Desk Reference. Retrieved from [https://www.faa.gov/about/office\\_org/headquarters\\_offices/apl/environ\\_policy\\_guidance/policy/faa\\_nepa\\_order/desk\\_ref/](https://www.faa.gov/about/office_org/headquarters_offices/apl/environ_policy_guidance/policy/faa_nepa_order/desk_ref/).

### 3.1.4 Wild and Scenic Rivers

The National Wild and Scenic Rivers Act (16 USC §§ 1271-1287) provides federal protection to rivers that have rare, unique, or exemplary features at a regional or national scale.<sup>14</sup> The closest designated wild and scenic river is Black Creek (in Mississippi), which is approximately 100 miles northwest of the Proposed Development Project site.<sup>15</sup> Given this distance, the Proposed Development Project would not have an impact on wild and scenic river resources and will not be included in further analysis.

## 3.2 Study Areas/Resources Affected

The following sections will describe the existing baseline conditions for the following environmental resources:

- Air Quality
- Biological Resources
- Climate
- Coastal Resources
- Department of Transportation Act, Section 4(f) Resources
- Hazardous Materials, Solid Waste, and Pollution Prevention
- Historic, Architectural, and Cultural Resources
- Land Use
- Natural Resources, Energy Supply, and Sustainable Design
- Noise and Noise-Compatible Land Use
- Socioeconomics, Environmental Justice, and Children’s Environmental Health and Safety Risks
- Water Resources

Existing conditions for these resources will be evaluated based on the geographic extent to which the Proposed Development Project may impact the resource. The Proposed Development Project site is 74.6 acres and will serve as the direct impact area for each resource category. For most of the resources described below, the Day Night Average Sound Level (DNL) 65-dB noise contour will serve as the indirect impact area. In the remaining cases, the indirect impact area will be identified within the resources’ sections.

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<sup>14</sup> National Park Service. 2021. What Are Wild and Scenic Rivers?. Retrieved from <https://www.nps.gov/orgs/1912/what-are-wild-and-scenic-rivers.htm>.

<sup>15</sup> National Wild and Scenic Rivers System. n.d. Retrieved from <https://www.rivers.gov/river-app/>.

### 3.2.1 Air Quality

The Clean Air Act (CAA) (42 USC §§ 7401-7671q) authorizes the U.S. Environmental Protection Agency (EPA) to set National Ambient Air Quality Standards (NAAQS) to protect human health and public welfare.<sup>16</sup> After NAAQS are set or revised for each air pollutant (Carbon Monoxide, Lead, Nitrogen Dioxide, Ozone, Particulate Matter, and Sulfur Dioxide—also called criteria air pollutants), the EPA must determine whether geographic areas meet these standards. Areas that have concentrations of criteria air pollutants at or below established NAAQS are designated as attainment areas. Areas that exceed these standards are called nonattainment areas. The Escambia County jurisdictional area will serve as the study area boundary for baseline air quality conditions. The EPA has designated Escambia County as an attainment area for all NAAQS criteria air pollutants as reported from October 31, 2020 data.<sup>17</sup>

### 3.2.2 Biological Resources

There are several federal and state statutes and regulations related to the protection of biological resources, including the destruction and modification of critical habitat:

- Endangered Species Act (16 USC §§ 1531-1544)
- Marine Mammal Protection Act (16 USC § 1361 et seq.)
- Bald and Golden Eagle Protection Act (16 USC § 668 et seq.)
- Migratory Bird Treaty Act (MBTA) (16 USC § 703 et seq.)
- Florida Endangered and Threatened Species Act (Natural Resources; Conservation, Reclamation, and Use § 379.2291)

A qualified biologist performed an in-field biological assessment and desktop evaluation for this EA on June 23-24, 2020 (**Appendix C**)<sup>18</sup> to assess the presence of plant and animal species, including those listed as threatened or endangered at the state or federal level (**Appendix C**). These assessments were conducted within the Proposed Development Project site and adjacent areas, where applicable.

#### 3.2.2.1 Existing Land Use and Vegetative Cover

Land use habitats within the Proposed Development Project site were assessed using the Florida Land Use, Cover, and Forms Classification Systems (FLUCFCS) manual and verified during the in-field assessment. The vegetated classifications associated with the Proposed Development Project site include open land and upland hardwood forests and can be seen in **Figure 3-4 (Appendix A)**. **Table 3-1**

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<sup>16</sup> U.S. Environmental Protection Agency. 2021. Criteria Air Pollutants. Retrieved from <https://www.epa.gov/criteria-air-pollutants>.

<sup>17</sup> U.S. Environmental Protection Agency. 2020. Florida Nonattainment/Maintenance Status for Each County by Year for All Criteria Pollutants. Retrieved from [https://www3.epa.gov/airquality/greenbook/anayo\\_fl.html](https://www3.epa.gov/airquality/greenbook/anayo_fl.html).

<sup>18</sup> Following the June 23-24, 2020 field assessment, minor alterations were made to the Proposed Development Project site (i.e., limits of disturbance) during the preliminary design phase. These alterations primarily included expansion into the existing transportation (airport) land use category and resulted in acreage that was not included in the field assessment.



provides the acreage of each land use and cover type located within the Proposed Development Project site, with descriptions available in **Section 3.2.8.1**.

*Table 3-1: FLUCFCS Acreage Within the Proposed Development Project Site*

<b>Code</b>	<b>Description</b>	<b>Acres</b>
1422	Mini-Warehouses	2.60
190	Open Land	8.65
192/420	Inactive Land with street patterns but without structures/Upland Hardwood Forests	38.28
194	Other Open Land	1.01
420	Upland Hardwood Forests	13.17
530	Reservoirs (Stormwater Ponds)	3.03
811	Airports	7.86
<b>Total Acres</b>		<b>74.60</b>

### 3.2.2.2 Wildlife

The biologist recorded wildlife species and signs observed (e.g., tracks, scat) during the in-field assessment of the Proposed Development Project site. These species included those mammals, reptiles, and birds that have adapted to, live within, or are adjacent to an urbanized habitat. Species directly observed were eastern gray squirrel (*Sciurus carolinensis*), gopher tortoise (*Gopherus polyphemus*), feral cat (*Felis catus*), green anole (*Anolis carolinensis*), and brown anole (*Anolis sagrei*). Signs of other mammals also were observed, including raccoon (*Procyon lotor*), opossum (*Didelphis virginiana*), armadillo (*Dasypus novemcinctus*), and rabbit (*Sylvilagus floridanus*).

### 3.2.2.3 Listed Species

The biologist conducted a desktop analysis and in-field assessment on the Proposed Development Project site to identify threatened and endangered species that may be impacted by the Proposed Development Project. The in-depth desktop analysis used threatened and endangered species databases, including the United States Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC) Report, Florida Fish and Wildlife Conservation Commission (FFWCC) wildlife observation data, and Florida Natural Areas Inventory (FNAI) data. Details on the results of these database searches can be found in **Appendix C**.

This desktop analysis identified four federally listed species that could potentially occur within or near the Proposed Development Project site: the eastern indigo snake (*Drymarchon couperi*), reticulated flatwoods salamander (*Ambystoma bishopi*), Wood Stork (*Mycteria americana*), and Atlantic sturgeon (*Acipenser oxyrinchus*). The analysis also identified five bird “species of particular concern” based on the USFWS Birds of Conservation Concern list or the potential to occur within the Proposed Development Project site: Clapper Rail (*Rallus crepitans*), Dunlin (*Calidris alpina arcticola*), King Rail (*Rallus elegans*), Red-headed Woodpecker (*Melanerpes erythrocephalus*), and Wood Thrush (*Hylocichla*

*mustelina*) (**Appendix C, Attachment F**). Birds protected under the MBTA<sup>19</sup> could also be present within the Proposed Development Project site. The FFWCC Bald Eagle Nest Locator Map (2016-2017 Nesting Season) was used to identify potentially active Bald Eagle (*Haliaeetus leucocephalus*) nests and the nearest documented nest was located approximately 4.0 miles away from the Proposed Development Project boundary (**Appendix C, Attachment E**).<sup>20</sup>

A field assessment (June 2020) also was performed to determine the potential presence of threatened and/or endangered plant and animal species. A detailed report for this field assessment can be found in **Appendix C**. During the in-field assessment, the state-threatened gopher tortoise (*Gopherus polyphemus*) was observed within the Proposed Development Project site. This included the presence of one individual, as well as 15 potentially occupied burrows and one abandoned burrow. No other state or federally listed plant or animal species were observed within the Proposed Development Project site at that time. The field assessment also determined that there was an absence of suitable breeding and non-breeding habitat for the reticulated flatwoods salamander. The Proposed Development Project site is not within critical habitat for this species. In addition, the field assessment also confirmed an absence of habitat for the Atlantic sturgeon. Wood Stork nests were not observed during the field assessment, and the Proposed Development Project site is not located within the USFWS 2009-2018 Florida Active Nesting Colonies and Core Foraging Areas. Eastern indigo snakes can use gopher tortoise burrows, including to escape heat during summer months, and thus a potential exists for their occurrence in the Proposed Development Project site. Downy Woodpecker (*Picoides pubescens*) protected under the MBTA, and other unidentified songbirds were observed. None of the five bird species of particular concern noted above were observed.

### 3.2.3 Climate

Greenhouse gas (GHGs) emissions trap heat in the atmosphere and have the potential to change climate. Carbon dioxide (CO<sub>2</sub>) currently constitutes 80 percent of the total U.S. GHG emissions.<sup>21</sup> Domestic aviation accounts for 3 percent of the total U.S. carbon dioxide emissions, and 9 percent of the GHG emissions for the transportation sector.<sup>22</sup> In addition to aircraft, sources of GHG emissions at the Airport include airport vehicles, ground support equipment, tenant emissions, and commercial/personal vehicles arriving or departing.

The geographic and topographic position and current climate conditions of an airport are important factors when examining potential impacts and the level of preparedness related to climate change. The Airport is approximately 121.2 feet above mean sea level and located approximately one mile from Escambia Bay (east) and Pensacola Bay (south).<sup>23</sup> As previously mentioned in **Section 3.1.2**, the Proposed Development Project site is situated in an area classified as having a minimal flood hazard

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<sup>19</sup> 16 USC § 703 et seq. The Migratory Bird Treaty Act (MTBA) of 1918 contains a list of approximately 1,100 species of birds that are protected (unlawful to pursue, hunt, take, capture, kill, or sell) under federal law. The statute extends protection to live or dead birds and any bird parts including feathers, eggs, and nests.

<sup>20</sup> Florida Fish and Wildlife Conservation Commission (FWC). 2020. Bald Eagle Management. Retrieved from <https://myfwc.com/wildlifehabitats/wildlife/bald-eagle/management/>.

<sup>21</sup> U.S. Environmental Protection Agency. 2021. Inventory of U.S. Greenhouse Gas Emissions and Sinks. Retrieved from <https://www.epa.gov/ghgemissions/inventory-us-greenhouse-gas-emissions-and-sinks>.

<sup>22</sup> Center for Climate and Energy Solutions. 2020. Reducing Carbon Dioxide Emissions from Aircraft. Retrieved from <https://www.c2es.org/content/>.

<sup>23</sup> Pensacola International Airport. 2018. Airport Master Plan Update. Retrieved from <http://www.pnsmasterplan.com/downloads/>.

(**Figure 3-3, Appendix A**). The current climate at the Airport includes an annual precipitation rate of 65.27 inches and an average annual temperature of 67.9°F.<sup>24</sup> The City of Pensacola’s Climate Mitigation and Adaptation Task Force has identified climate change-related threats for the area, including sea level rise, heavier rain, inland and coastal flooding, and stronger hurricanes and related storm surges.<sup>25</sup>

### 3.2.4 Coastal Resources

Coastal resources are protected under the following federal laws:

- Coastal Barrier Resources Act (16 USC § 3501 et seq.)
- Coastal Zone Management Act (16 USC §§ 1451-1466)
- National Marine Sanctuaries Act (16 USC § 1431 et seq.)

The Proposed Development Project site and DNL 65 dB noise contour will serve as the study area for coastal resources to account for indirect impacts that may result from construction and operational activities (i.e., light emissions, noise, changes to water quality). The Proposed Development Project study area is not located within the Coastal Barrier Resources System. The closest unit, Basin Bayou (FL-102), is approximately 3.5 miles east of the DNL 65 dB contour boundary.<sup>26</sup> Since no coastal barrier resources are located within or near the study area boundary, additional evaluation of these resources will not be needed. The Airport and the Proposed Development Project site are located within an area subject to the Florida Coastal Management Program (FCMP). The Office of Intergovernmental Programs manages the Florida State Clearinghouse which coordinates the review of federal actions in Florida for consistency with the FCMP.

### 3.2.5 Department of Transportation Act, Section 4(f) Resources

Resources protected under Section 4(f) of the USDOT Act<sup>27</sup> (1966) include publicly owned parks, recreational areas, and wildlife and waterfowl refuges, and historic properties or archaeological sites (whether publicly or privately owned) on, or eligible for listing on, the National Register of Historic Places (NRHP) (collectively “Section 4(f) resources”). The Official State of Florida Geographic Data Portal was used to identify Section 4(f) resources located within the Proposed Development Project site (direct impact area) and within the 2020 base year DNL 65 dB noise contour (indirect impact area).<sup>28,29</sup> There were no Section 4(f) resources found within the Proposed Development Project site boundary. Three Section 4(f) resources were found within the existing DNL 65 dB noise contour, with their locations shown in **Figure 3-5 (Appendix A)**. **Table 3-2** presents a brief description of each resource.

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<sup>24</sup> National Oceanic and Atmospheric Administration. n.d. Data Tools: 1981-2010 Normals. Retrieved from <https://www.ncdc.noaa.gov/cdo-web/datatools/normals>.

<sup>25</sup> City of Pensacola Climate Mitigation and Adaptation Task Force. 2018. Climate Action Recommendations. Retrieved from <https://www.cityofpensacola.com/DocumentCenter/View/15491>.

<sup>26</sup> U.S. Fish and Wildlife Service. 2019. CBRS Mapper. Retrieved from <https://www.fws.gov/CBRA/Maps/Mapper.html>.

<sup>27</sup> 49 USC § 303(c)

<sup>28</sup> Florida Department of Environmental Protection. 2020. Florida’s Outdoor Recreation Inventory. Retrieved from <https://geodata.myflorida.com/>.

<sup>29</sup> University of Florida GeoPlan Center. 2019. Parks and Recreational Facilities in Florida. Retrieved from <https://geodata.myflorida.com/>.

Table 3-2: Section 4(f) Resources Located within the Indirect Impact Area

Name	Description
Lavallet Park	Neighborhood park with playground equipment and gazebo picnic areas
Pensacola Aviation Discovery Park	Aviation-themed park with playground equipment and shaded picnic tables
Roger Scott Athletic Complex	Multi-use area that includes ball fields, tennis courts, a dog park, and playground equipment

### 3.2.6 Hazardous Materials, Solid Waste, and Pollution Prevention

Federal laws regulate hazardous waste, including the generation, transportation, treatment, storage and disposal of hazardous materials (Resource Conservation and Recovery Act (RCRA), 42 USC §§ 6901-6992k), and the cleanup of inactive hazardous waste sites, including liability requirements (Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), 42 USC §§ 9601-9765). The following subsections include a general overview of hazardous waste generators at the Airport, as well as existing conditions based on a Phase I and Phase II Environmental Site Assessment (ESA). The study area for the Phase I and Phase II ESA included the Proposed Development Project site plus an approximate minimum search distance (AMSD), which is defined in the corresponding subsections and appendices.

#### 3.2.6.1 Hazardous Waste Generators

Airport operational activities regularly involve storing, transporting, and using hazardous substances, with aircraft and automobile fuel representing the largest amounts. According to the *Pensacola International Airport Master Plan Update* (2018), 157,000 gallons of aircraft fuel and 1,500 gallons of automobile fuel are stored on-site.<sup>30</sup> In addition to fuel, an EPA RCRA search identified several active small-quantity hazardous waste generator<sup>31</sup> (SQG) sites within the Airport boundary: the Airport (Handler ID: FLR000145185), Heliworks (Handler ID: FLR000219436), and the current Phase One MRO operator (Handler ID: FLR000226647).<sup>32</sup>

#### 3.2.6.2 Environmental Site Assessments

A Phase I Environmental Site Assessment (ESA) was performed on the Proposed Development Project site and AMSD on July 2, 2020 in accordance with the American Society for Testing and Materials International (ASTM International) Standard Practice for Environmental Site Assessments, Designation: E1527-13 (**Appendix D**). The objective of the Phase I ESA was to identify recognized environmental conditions (RECs) associated with the Proposed Development Project site, including the presence or likely presence of hazardous substances or petroleum products. The results of the Phase I ESA revealed

<sup>30</sup> Pensacola International Airport. 2018. Airport Master Plan Update. Retrieved from <http://www.pnsmasterplan.com/downloads/>.

<sup>31</sup> Small-quantity hazardous waste generators (SQGs) generate between 100 kilograms and 1,000 kilograms of hazardous waste per month.

<sup>32</sup> U.S. Environmental Protection Agency. n.d. RCRA Info. Retrieved from <https://enviro.epa.gov/facts/rcrainfo/search.html>.

the presence of one REC, Vick's/Vogue Cleaners #1, located approximately 0.239 mile north of the Proposed Development Project site boundary. Soil and groundwater contamination associated with dry-cleaning solvents were documented at this facility in January 1993. No active registered fuel storage tanks, National Priority List sites, or RCRA facilities were found in the Phase I ESA.

A Phase II ESA also was conducted within the Proposed Development Project site to determine baseline environmental conditions, including soil and groundwater quality (**Appendix E**). No soil impacts were found from the soil samples collected, including at locations previously identified as potential areas of environmental concern in the Phase I ESA (e.g., former 1940s-era dump and former fuel dispenser island). Groundwater samples were collected and analyzed at 10 groundwater monitoring wells installed on-site. These samples revealed that several compounds exceeded groundwater and surface water Cleanup Target Levels (CTL) in Chapter 62-777 of the Florida Administrative Code. Nickel and chromium levels were above CTL in one well on the southern edge of the Proposed Development Project site boundary that is near the location of a former 1940s-era dump. Six of the ten monitoring wells had concentrations of the organochlorine pesticide, dieldrin, above CTL. In addition, one well situated in the northeast section of the site had low concentrations of tetrachloroethene, a common dry-cleaning solvent, but the concentration was below CTL.

### 3.2.7 Historic, Architectural, Archaeological, and Cultural Resources

Section 106 of the National Historic Preservation Act (NHPA) of 1966 requires that federal agencies evaluate the effects that their undertakings, including permitting and approval, will have on historic properties.<sup>33</sup> It requires that agencies consult with appropriate parties, including State Historic Preservation Offices (SHPO), Tribal Historic Preservation Offices (THPO), and other interested parties. Tribes with interests in Escambia County<sup>34,35</sup> include Alabama-Coushatta Tribe of Texas, Choctaw Nation of Oklahoma, Coushatta Tribe of Louisiana, Miccosukee Tribe of Indians, Mississippi Band of Choctaw Indians, Muscogee (Creek) Nation, Seminole Nation of Oklahoma, Seminole Tribe of Florida, and Poarch Band of Creeks. Consultation with Tribes was initiated by the FAA on August 17, 18, and 19, 2021 (**Appendix K**).

A cultural resources review (**Appendix F**) noted that the area of potential effects (APE) is previously disturbed by development and has a low potential for archaeological resources or tribal resources to be present. There are no historic sites or historic districts in or adjacent to the Proposed Development Project site (**Appendix F**). The NRHP was reviewed and showed no listed properties within the Proposed Development Project site or DNL 65 dB noise contour.<sup>36</sup> The Hyer-Knowles Planing Mill Chimney, located within Chimney Park (**Figure 3-5, Appendix A**), is the closest NRHP resource, located approximately 1.7 miles east of the Proposed Development Project site and less than 0.1 mile from the DNL 65 dB noise contour boundary. Consultation with the Florida SHPO was initiated on February 11,

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<sup>33</sup> Advisory Council on Historic Preservation. n.d. An Introduction to Section 106. Retrieved from <https://www.achp.gov/protecting-historic-properties/section-106-process/introduction-section-106>.

<sup>34</sup> <https://www.fdot.gov/environment/NA-Website-Files/Contacts.shtm>

<sup>35</sup> U.S. Department of Housing and Urban Development. 2021. Tribal Directory Assessment Tool (TDAT). Retrieved from <https://egis.hud.gov/TDAT/>.

<sup>36</sup> National Park Service. 2020. National Register of Historic Places. Retrieved from <https://www.nps.gov/subjects/nationalregister/data-downloads.htm>.

2021, with a response letter from the Deputy State Historic Preservation Officer received on March 15, 2021 (**Appendix G**).

### 3.2.8 Land Use and Surface Transportation

Noise-related impacts are the primary consideration for airport-related projects and current and planned land uses.<sup>37</sup> Land use compatibility issues also can result from visual impacts, induced socioeconomic impacts, vehicle traffic impacts, and impacts related to wildlife attractants, including the proximity of landfill locations. Statutes and regulations associated with land use compatibility include:

- Airport and Airway Improvement Act of 1982 and amendments (49 USC § 47107(a)(10))
- Airport Improvement Program (49 USC § 47106(a)(1))
- Airport Safety, Protection of Environment, Criteria for Municipal Solid Waste Landfills (40 CFR § 258.10)
- Florida Statutes, Chapter 333, *Airport Zoning*

The following subsections examine the current land use within the Proposed Development Project site, as verified during field assessments. Municipal solid waste landfills also are examined with regard to the Proposed Development Project site. Additional information pertaining to noise compatibility and land use can be found in **Section 3.2.10**.

#### 3.2.8.1 Current Land Use

The current land uses within the approximately 74.6-acre Proposed Development Project site were assessed using the FLUCFCS manual and verified in the field (**Appendix C**). Aerial photography also was used to confirm land uses that were not accessed during the field assessment, including sections in the AOA. These land uses have been outlined in **Figure 3-4 (Appendix A)** and are summarized below:

- **Mini-Warehouses (FLUCFCS-1422)**  
Two mini-warehouse businesses are located within the Proposed Development Project site, covering 2.6 acres. These businesses contain storage facilities typical for small-scale residential and commercial storage. Both warehouses have little to no vegetation and both have an associated stormwater pond that captures stormwater runoff from the paving and hardscape features typical of this land use type.
- **Open Land (FLUCFCS-190)**  
There are four areas of undeveloped open land within the Proposed Development Project site, covering 8.65 acres. These areas are adjacent to Tippin Avenue on the west side of the Proposed Development Project site boundary and along the border of the existing airport on the northeast side. These areas are fields that contain bahia grass (*Paspalum notatum*) and

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<sup>37</sup> Federal Aviation Administration. 2020. 1050.1F Desk Reference. Retrieved from [https://www.faa.gov/about/office\\_org/headquarters\\_offices/apl/environ\\_policy\\_guidance/policy/faa\\_nepa\\_order/desk\\_ref/](https://www.faa.gov/about/office_org/headquarters_offices/apl/environ_policy_guidance/policy/faa_nepa_order/desk_ref/).

Bermuda grass (*Cynodon dactylum*). There are some remnant asphalt pieces from a pre-existing parking lot on the portion of open land on the southwestern corner of the Proposed Development Project site boundary.

- **Inactive Land with street patterns but without structures/Upland Hardwood Forests (FLUCFCS-192/420)**

The Proposed Development Project site is comprised of 38.28 acres of a previous residential neighborhood with street patterns, but no structures remain. Fragmented upland hardwood forest is also interspersed within this land cover. This land use totals approximately 51% of the entire site and the vegetated portions contain native, ornamental, and invasive-exotic species that are typical of landscaping associated with a medium-density residential neighborhood in this region. In the field, several large live oaks (*Quercus virginiana*) of significant age with impressive canopies were noted. The canopy is dominated by hardwood tree species, especially live oak. There also were intermittent observations of pecan (*Carya illinoensis*), slash pine (*Pinus elliottii*), longleaf pine (*Pinus palustris*), cedar (*Juniperus virginiana*), ash (*Fraxinus americana*), and cabbage palm (*Sabal palmetto*). Subcanopy trees and shrubs included dogwood (*Cornus florida*), crape myrtle (*Lagerstroemia indica*), common fig (*Ficus carica*), pear (*Pyrus* sp.), mulberry (*Morus* sp.), yaupon holly (*Ilex vomitoria*), sago palm (*Cycas revoluta*), and blackberry (*Rubus* spp.). Herbaceous species included Spanish daisy (*Helenium amarum*), soft greeneyes (*Berlandiera pumilla*), heartwing dock (*Rumex hastatulus*), St. John's wort (*Hypericum* spp.), goldenrod (*Solidago* spp.), dog fennel (*Eupatorium capillifolium*), cast iron plant (*Aspidistra elatior*), periwinkle (*Vinca* spp.), and tick trefoil (*Desmodium* sp.). Other grasses and vines included bahia grass, Bermuda grass, monkey grass (*Liriope spicata*), Virginia creeper (*Parthenocissus quinquefolia*), poison ivy/oak (*Toxicodendron radicans/pubescens*), trumpet creeper (*Campsis radicans*), and grape (*Vitis* spp.). Invasive-exotic species associated with this land use include camphor (*Cinnamomum camphora*), Chinese tallow (*Triadica sebifera*), mimosa (*Albizia julibrissin*), silverthorn (*Elaeagnus pungens*), chinaberry (*Melia azedarach*), oleander (*Nerium oleander*), bottlebrush (*Melaleuca viminalis*), golden bamboo (*Phyllostachys aurea*), lantana (*Lantana strigocamara*), spiderwort (*Tradescantia* spp.), and Mexican bluebell (*Ruellia simplex*).

- **Other Open Land (FLUCFCS-194)**

A 1.01-acre section of land adjacent to the eastern boundary of the Proposed Development Project site was in the process of being cleared during the field assessment and is categorized as "Other Open Land." This area was upland hardwood forest that has been cleared, with the stumps removed. This area was cleared by the Airport as part of an obstruction removal project.

- **Upland Hardwood Forests (FLUCFCS-420)**

The upland hardwood forest land use encompasses 13.17 acres within the Proposed Development Project site. This community type has a crown canopy with at least a 66-percent dominance from hardwood tree species. All the forested areas of the Proposed Development Project site fall within this land use and are dominated by live oak. There are several large live oaks within this community type that are of significant age with impressive canopies. Additional

species that occur to a lesser extent within this community type are laurel oak (*Quercus laurifolia*), black cherry (*Prunus serotina*), cherry laurel (*Prunus caroliniana*), southern magnolia (*Magnolia grandiflora*), and American beautybush (*Callicarpa americana*).

- **Reservoirs (FLUCFCS-530; Stormwater Ponds)**

Reservoirs are defined in the FLUCFCS manual as artificial impoundments of water. Eight stormwater ponds, covering 3.03 acres and designed to collect stormwater, were observed within the Proposed Development Project site. These stormwater ponds generally are comprised of various grasses (such as bahia grass and Bermuda grass) and include concrete spillways, mitred concrete drains, or corrugated culverts that convey stormwater from associated structures and impervious features. Because of their design, some of these stormwater ponds have held water for long enough periods of time to develop emergent wetland plant species, such as rushes (*Juncus* spp.), sedges (*Carex* spp.), and cattails (*Typha* spp.).

- **Transportation (Airport) (FLUCFCS-811)**

The transportation (airport) land use incorporates all airport facilities, including runways, intervening land, terminals, service buildings, navigational aids, fuel storage, parking lots, and a limited buffer zone. This land use encompasses 7.86 acres, which includes portions of the northeast and southeast corner of the Proposed Development Project site. These sections contain vegetated areas, located between the runways and taxiways, which are dominated by grasses such as bahia grass and Bermuda grass. Other herbaceous vegetation in these areas includes blackberry and panic grasses (*Panicum* spp.).

### 3.2.8.2 Surface Transportation

Existing and 2025 background traffic volumes were estimated in the Traffic Impact Analysis (**Appendix H**). The study area for this analysis was based on guidelines established in the Escambia County Land Development Code and includes roadway segments presented in **Table 3-3** and intersections along these roadways.

Table 3-3: Existing Roadway Segments

Roadway	Segment Extents		Functional Class	Speed Limit (mph)	Facility Type
	From	To			
Tippin Avenue	Langley Avenue	Airport Boulevard	Urban Collector	45	4 Lane
9th Avenue	Tippin Avenue	Airport Boulevard	Minor Arterial	40	4 Lane
Underwood Avenue	Langley Avenue	9th Avenue	Local	30	2 Lane
Airport Boulevard	9th Avenue	I-110	Major Arterial	45	4 Lane



Results from the analysis indicated that all study area roadway segments and intersections currently function within Escambia County's adopted level of service<sup>38</sup> (LOS) targets (with LOS A to LOS D considered acceptable), except for the Tippin Avenue and 9th Avenue intersection (LOS E) during the evening peak period (4:15PM to 5:15PM). More details on the methodology and traffic volume data collection for the Traffic Impact Analysis can be found in **Appendix H**.

### 3.2.8.3 Solid Waste Landfills

To reduce hazards associated with bird-aircraft collisions, FAA's Advisory Circular 150/5200-33C and AC 150/5200-34A recommend a separation distance of five and six miles, respectively, between landfills and airports. According to FDEP and Google Earth data, there are no sanitary landfills containing municipal solid waste located within five miles of Airport runways.<sup>39</sup> The closest landfills are Santa Rosa County Landfill and Perdido Landfill which are approximately nine and thirteen miles away, respectively.

### 3.2.9 Natural Resources and Energy Supply

FAA policy encourages the development of facilities with sustainability practices, including using design elements to conserve resources and reduce pollution.<sup>40</sup> The Escambia County jurisdictional boundary will serve as the study area for natural resources and energy supply. Suppliers of resources within this area—including energy, water and sewer services, and natural gas—include:

- Gulf Power supplies electricity to the Airport and the surrounding areas. Current energy demands at the Airport include facility and airfield lighting, air conditioning, and power requirements for building operations and tenants, including terminals and hangars.
- Water and sewer services at the Airport are provided by the Emerald Coast Utility Authority (ECUA). Water wells that pump from the Sand-and-Gravel Aquifer are the primary water supply for the region.<sup>41</sup> ECUA owns and operates three water reclamation facilities in Escambia County with a combined permitted capacity to treat 33.1 million gallons per day.<sup>42</sup>
- Pensacola Energy supplies natural gas to most of Escambia County, including the Airport. This natural gas is transported from the Gulf South Pipeline System.<sup>43</sup>

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<sup>38</sup> Level of service (LOS) is a qualitative measure used to relate the quality of motor vehicle traffic service. Typically, six levels of service are defined, and each is assigned a letter from A to F, with LOS A representing the best operating conditions, and LOS F the worst.

<sup>39</sup> Florida Department of Environmental Protection Geospatial Open Data. 2017. Solid Waste Facilities. Retrieved from <https://geodata.dep.state.fl.us/>.

<sup>40</sup> Federal Aviation Administration. 2020. 1050.1F Desk Reference. Retrieved from [https://www.faa.gov/about/office\\_org/headquarters\\_offices/apl/environ\\_policy\\_guidance/policy/faa\\_nepa\\_order/desk\\_ref/](https://www.faa.gov/about/office_org/headquarters_offices/apl/environ_policy_guidance/policy/faa_nepa_order/desk_ref/).

<sup>41</sup> Northwest Florida Water Management District. 2020. 2018 Estimated Water Use (Summary Report). Retrieved from <https://www.nfwwater.com/Data-Publications/Water-Use-Data>.

<sup>42</sup> Emerald Coast Utility Authority. n.d. Water Reclamation. Retrieved from <https://ecua.fl.gov/services/water-reclamation-services>.

<sup>43</sup> Pensacola International Airport. 2018. Airport Master Plan Update. Retrieved from <http://www.pnsmasterplan.com/downloads/>.

### 3.2.10 Noise and Noise-Compatible Land Use

#### 3.2.10.1 Noise Impact and Land Use Compatibility Assessment Methods

The FAA specifies airport noise environmental evaluation methodologies in FAA Order 1050.F, FAA Order 5050.4B, and 14 CFR § 150. The FAA mandates that the cumulative noise energy exposure of individuals to aviation noise must be established in terms of Yearly DNL, which is the FAA's primary noise metric. DNL is a 24-hour average sound level in decibels using the A-weighted scale (dBA), which applies a 10-decibel penalty to aircraft operations that occur between 10:00PM and 7:00AM. That average is derived from all aircraft operations during a 24-hour period, representing an average annual operational day.

The FAA established land use compatibility guidelines relative to certain DNL noise levels in 14 CFR § 150. Although residential land uses are considered compatible with noise exposure levels below DNL 65 dB under 14 CFR § 150, Table 1: "The responsibility for determining the acceptable and permissible land uses...rests with the local authorities...Part 150 is not intended to substitute federally determined land uses for those determined to be appropriate by local authorities in response to locally determined needs and values in achieving noise compatible land uses."

Aviation Environmental Design Tool (AEDT), version 3c, was used to produce noise contours and analyze noise levels at sensitive sites. AEDT incorporates airport-specific inputs, which include the number of annual average daily aircraft operations (daytime and nighttime), aircraft fleet mix, flight paths, run-up locations, and aircraft flight profiles. Other variables include temperature; wind gradients; humidity effects; ground absorption; individual aircraft directivity patterns; and sound diffraction caused by water, buildings, barriers, etc. **Appendix B** includes a description of the modeling methods, inputs, and assumptions used for the aircraft noise analysis.

To characterize the baseline noise conditions, the 106,897 aircraft operations (**Table 1-2**) that occurred at the Airport in 2020 were analyzed to determine the Average Annual Day.<sup>44</sup> Two hundred and ninety-three (293) Average Annual Day operations were calculated and used to model noise exposure. Maps depicting representative flight tracks flown by these aircraft are provided in **Appendix B**.

#### 3.2.10.2 Existing Noise Environment and Land Use Compatibility

The Proposed Development Project site is located on Airport property and is depicted on the Airport's December 2019 ALP as "Aeronautical Development" land use. The Proposed Development Project is bordered primarily by commercial land uses along Langley Avenue to the north and Tippin Avenue to the west (including predominantly commercial uses across Tippin Avenue), and an airport restricted zone to the east and south (**Figure 3-6, Appendix A**). Several commercial parcels and one isolated residential parcel are directly adjacent to the Proposed Development Project boundary along Tippin Avenue. The main structure of that single residential property is approximately 200 feet from the Proposed Development Project boundary and 375 feet from proposed hangar locations. The closest residential neighborhood is located approximately 730 feet from the Proposed Development Project boundary at the northeast corner of Langley Avenue and Judkins Drive (northwest of the site).

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<sup>44</sup> FAA APO TAF Detail Report, Issued July 2021

Community environmental noise refers to outdoor noise in the vicinity of inhabited areas. It varies greatly in magnitude and character among locations – from quiet suburban areas to downtown city streets. It generally varies with time of day, being relatively quiet at night when activities are at a minimum and noisier in mornings and afternoons during peak traffic periods. Even within a small area, the noise environment may vary significantly depending on proximity to local noise sources (e.g., near airports or major roadways). The areas adjacent to the Proposed Development Project are currently exposed to existing noise from the Airport and roadway sources.

Noise sensitive sites identified for the study area include parks, recreation areas, and residential properties. **Figure 3-7 (Appendix A)** depicts the DNL 65 dB, DNL 70 dB, and DNL 75 dB noise contours associated with the 2020 baseline condition, and noise sensitive sites located within these contour lines. The FAA has established the DNL 65 dB contour as the threshold above which aircraft noise is considered incompatible with residential areas and certain other land uses. As **Figure 3-7** depicts, the DNL 65 dB and higher contours extend beyond the Airport’s property line in a few areas, totaling approximately 33.58 acres in the baseline year, 2020. Existing land use acreages within the 2020 baseline DNL 65 dB, DNL 70 dB, and DNL 75 dB noise contours are presented in **Table 3-4**.

*Table 3-4: Land Use and Population Estimates – Existing Conditions (2020)*

Land Use Category	Land Uses Exposed to DNL 65 and Higher (acres)				Residences within DNL 65	Population within DNL 65
	DNL 65-70	DNL 70-75	DNL 75+	Total		
Airport	229.75	176.34	211.27	617.36	0	0
Commercial and Services	4.42	0	0	4.42	0	0
Institutional (includes nursing home)	0.12	0	0	0.12	0	0
Recreational	11.98	8.77	4.24	24.99	0	0
Residential Low Density	0.46	0	0	0.46	1	2
Residential Medium Density	3.22	0	0	3.22	6	14
Residential High Density	5.16	0	0	5.16	15	35
Other Land Use	124.67	6.95	1.67	133.29	0	0
<b>Total</b>	<b>379.78</b>	<b>192.06</b>	<b>217.18</b>	<b>789.02</b>	<b>22</b>	<b>51</b>

Sources: Florida Department of Environmental Protection. 2017. Statewide Land Use Land Cover. Retrieved from <https://geodata.dep.state.fl.us/search?collection=Dataset>; University of Florida GeoPlan Center. 2018. Florida Parcel Data Statewide – 2018. Retrieved from <https://www.fgd.org/metadataexplorer/explorer.jsp>; U.S. Census Bureau. 2019. QuickFacts- Pensacola City, Florida. Retrieved from <https://www.census.gov/quickfacts/fact/table/pensacolacityflorida,DC/PST045219>.

Notes: If a portion of a parcel was located within the contour, the entire acreage was included in the table above. Residences and population estimates were included if the contour intersected with the main structure on the parcel. Population estimates for single family residences were calculated by multiplying the number of units by the average persons per household (2.36) for the City of Pensacola, then rounding to the nearest whole number.

Noise sensitive land uses impacted by the existing DNL 65 dB, DNL 70 dB, and DNL 75 dB noise contours are provided in **Table 3-4** and **Figure 3-5 (Appendix A)**. Descriptions of these areas, starting from the northern portion of the Airport and continuing in a clockwise direction, are included in the bulleted list below.

- Sections of 11 residential parcels on the west side of Chablis Lane, northeast of the Runway 17 approach end, are impacted by the baseline 2020 DNL 65 dB contour. This includes eight residential homes that are intersected or located inside the baseline 2020 DNL 65 dB contour.
- Lavallet Park is located east of the intersection of Jerry L. Maygarden Road and Spanish Trail Road. This neighborhood park has amenities that include playground equipment, gazebo/pavilion picnic areas, and walking trails. As shown in **Figure 3-5 (Appendix A)**, Lavallet Park is enveloped by the 2020 base year DNL 65 dB contour, but outside of the 2020 base year DNL 70 dB contour.
- Due south of Lavallet Park are single-family homes and multi-family housing units that are also captured by the DNL 65 dB contour. Specifically, two homes along Spanish Trail Road, approximately five units of the Lavallet Townhome community, and one home on Montalvo Drive are enveloped by the DNL 65 dB contour.
- West of the Lavallet neighborhood are six homes along Lavallet Circle that are within the DNL 65 dB contour. A corner of one additional residential parcel is also within the DNL 65 dB contour.
- The Pensacola Aviation Discovery Park is located on Airport property with the north quarter of the park within the DNL 65 dB noise contour (**Figure 3-5, Appendix A**). The park received approval from the FAA with an agreement that it may be subject to closure and redevelopment based upon future Airport related purposes. The objective of this park is to generate and promote interest in aviation in youth populations. This facility was opened in 2006 with amenities including a viewing area of Airport operations, a playground, and aviation-related displays and equipment.
- The Roger Scott Athletic Complex is a municipal recreation and athletic facility located adjacent to the Airport on Summit Boulevard. This 52-acre complex contains baseball and softball fields, a football/soccer field, a swimming pool, tennis courts, a dog park, and the William J. "Red" Vickery Community Center. Based on the 2020 base year conditions, four of the five baseball fields and a small portion of the football/soccer field are within the DNL 65 dB contour. Portions of one of the four baseball fields and the majority of the football/soccer field are inside the DNL 70 dB contour. One area comprised of parking lot and an area currently being used as a hurricane debris collection site is within the DNL 75 dB contour (inset in **Figure 3-5, Appendix A**). A recent (September 2021) site visit to the facility indicated that there are sound reinforcement systems to assist with projecting sound across the ball fields.
- A forested corner of the Haven of Our Lady of Peace Nursing Home parcel is located within the DNL 65 dB contour. No buildings within this complex are positioned within the DNL 65 dB contour.

### 3.2.11 Socioeconomics, Environmental Justice, and Children’s Environmental Health and Safety Risks

A U.S. Census block group is defined as “... the smallest geographic entity for which the decennial census tabulates and publishes sample data.”<sup>45</sup> The impact area for this resource is based on U.S. Census Block Group 2 (No. 120330011012), which contains the Proposed Development Project site and adjacent areas (**Figure 3-8, Appendix A**). The following subsections present demographic information within this block group pertaining to socioeconomics, environmental justice, and children’s environmental health and safety.

#### 3.2.11.1 Demographics

The U.S. Census Bureau’s 2018 American Community Survey (ACS) five-year data were used to determine population totals, demographic information, and poverty rates for Escambia County, the City of Pensacola, and Block Group 2. Based on these survey data, the total population for Escambia County was 311,522, the City of Pensacola was 52,562, and Block Group 2 was 1,357. **Table 3-5** presents the race and ethnicity percentages for Escambia County, the City of Pensacola, and Block Group 2, with White alone comprising the largest percentage of the total population for all localities.

*Table 3-5: Population Percentages by Race and Ethnicity*

Demographics	Escambia County	City of Pensacola	Block Group 2
White alone	64.6%	58.3%	82.8%
Black or African American alone	21.8%	28.8%	1.6%
Asian alone	3.1%	1.9%	1.6%
American Indian and Alaska Native alone	0.5%	0.3%	0.0%
Native Hawaiian and Other Pacific Islander alone	0.1%	0.0%	0.0%
Two or more races	4.3%	5.3%	0.4%
Some other race alone	0.1%	0.1%	0.0%
Hispanic or Latino	5.6%	5.3%	13.6%

Notes: Numbers may not total to 100.0% due to rounding. Hispanic includes respondents of any race. Other categories are non-Hispanic.

Source: U.S. Census Bureau (2014-2018). Race & Ethnicity American Community Survey Five-Year Estimates. Retrieved from <https://censusreporter.org>

The Hispanic and Latino populations, regardless of race, were 5.6 percent for Escambia County, 5.3 percent for the City of Pensacola, and 13.6 percent for Block Group 2. The poverty rate for Escambia County was 13.9 percent and the City of Pensacola was 17.8 percent, with 2018 ACS poverty data

<sup>45</sup> U.S. Census Bureau. 2018. Geographic Areas Reference Manual (Ch. 11). Retrieved from <https://www.census.gov/programs-surveys/geography/guidance/geographic-areas-reference-manual.html>.

unavailable for Block Group 2. These percentages are higher than the 2018 national average of 11.8 percent.<sup>46</sup>

### 3.2.11.2 Environmental Justice

Executive Order 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, requires federal agencies to evaluate and address whether their actions cause disproportionately high or adverse human health or environmental effects on low-income or minority populations.<sup>47</sup> The EPA's environmental justice screening report (EJSCREEN) was used to identify population percentages from these groups. The report indicated that Census Block Group 2 is comprised of 14 percent low-income populations and 30 percent minority populations (**Appendix I**). CEQ guidance<sup>48</sup> identifies the presence of minority or low-income populations as a criterion in identifying environmental justice populations when the percentage of the population group exceeds 50 percent. For this analysis, the population is not considered an environmental justice population.

### 3.2.11.3 Children's Environmental Health and Safety Risks

Executive Order 13045, *Protection of Children from Environmental Health Risks and Safety Risks* directs federal agencies to make it a high priority to identify and assess environmental health risks and safety risks that may disproportionately affect children. This includes risks to health or safety from products or substances that a child is likely to encounter or ingest.<sup>49</sup> Based on ACS five-year data for Census Block Group 2, approximately 15.5 percent of the population (220 total individuals) are under the age of 18.<sup>50</sup> In addition, two child-related facilities (e.g., schools, daycares) were identified near the Proposed Development Project site and within Census Block Group 2: Little Explorers Learning Academy and PACE Center for Girls. Little Explorers Learning Academy (preschool) is located approximately 250 feet north of the Proposed Development Project site boundary across Langley Avenue. PACE Center for Girls is located approximately 550 feet west of the Proposed Development Project site off Underwood Avenue. The location of other child facilities (e.g., parks, community centers) in the area can be seen in **Figure 3-5 (Appendix A)**.

## 3.2.12 Water Resources

### 3.2.12.1 Surface Waters

There are no natural surface water features, including perennial and intermittent streams, wild and scenic rivers, or other open-water bodies within or directly adjacent to the Proposed Development Project site. During an in-field assessment, eight stormwater ponds were observed within the Proposed Development Project site.

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<sup>46</sup> U.S. Census Bureau. 2020. Income and Poverty in the United States: 2018 (Report No. P60-266). Retrieved from <https://www.census.gov/content/dam/Census/library/publications/2019/demo/p60-266.pdf>.

<sup>47</sup> U.S. Environmental Protection Agency. 2020. Summary of Executive Order 12898. Retrieved from <https://www.epa.gov/laws-regulations/>.

<sup>48</sup> Council on Environmental Quality (CEQ). 2019. Environmental Justice Under the National Environmental Policy Act. December 1997. Last Modified March 24, 2017. Retrieved from <https://www.epa.gov/environmentaljustice/ceq-environmental-justice-guidance-under-national-environmental-policy-act>.

<sup>49</sup> U.S. Environmental Protection Agency. Summary of Executive Order 13045. Retrieved from <https://www.epa.gov/laws-regulations/>.

<sup>50</sup> U.S. Census Bureau. 2019. Census Reporter (Block Group 2, Escambia, FL). Retrieved from <https://censusreporter.org/profiles/15000US120330011012-block-group-2-escambia-fl/>.

These eight manmade stormwater ponds observed during the field assessment have been designated as FLUCFCS 530 Reservoirs. Of the eight stormwater ponds onsite, three are remnant conveyance systems with concrete spillways, drains, or corrugated culverts designed to capture sheet flow from the pre-existing structures and impervious parking lots that were recently removed. There are two other stormwater ponds that are associated with the two mini-warehouse structures (FLUCFCS 1422). The remaining three stormwater ponds are associated with the current Airport operations. The locations of the eight stormwater ponds can be found in **Figure 3-4 (Appendix A)**. In addition to ground truthing, a desktop review of historical imagery from Google Earth and the University of Florida Digital Collections was done to determine that four of the eight stormwater ponds were created between 1990 and 2004. The remaining stormwater ponds were created post-2004 and all eight stormwater ponds were determined to have been created from upland soils. As found evident via ground truthing and historical aerial imagery analysis, it is determined that the eight stormwater ponds within the Proposed Development Project site are considered Other Surface Waters and are thereby exempt from mitigation pursuant to 62.340.700 F.A.C.

### 3.2.12.2 Groundwater

The Sand-and-Gravel Aquifer is the sole source for public water supplies in Escambia County, with an estimated 37.184 million gallons withdrawn daily.<sup>51</sup> This aquifer is composed of “sand and gravel with interbedded layers of silt and clay”.<sup>52</sup> The Sand-and-Gravel Aquifer can be divided into three main zones based on permeability contrasts, including two high permeability zones that are divided by less permeable sands and clays. Most groundwater withdrawals occur in the lower zone, known as the “main producing zone”.<sup>53</sup>

### 3.2.12.3 Drinking Water Supplies

ECUA is the main public water supplier for the greater Escambia County area, with 32 wells distributed throughout its service area. ECUA relies on the Sand-and-Gravel Aquifer as the sole supply source for drinking water for more than 90,000 customers.<sup>54</sup>

Two active Public Water Supply wells operated by the ECUA are near the Proposed Development Project site. The Humphreys Well is located approximately 1,140 feet east of the Proposed Development Project site boundary. The McAllister Well is located approximately 1,900 feet northeast of the site boundary. The Proposed Development Project site is located outside the 500-foot radius for each well as established under the Florida Wellhead Protection Rule (FL Rule Chapter 62-521).

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<sup>51</sup> Northwest Florida Water Management District. 2020. 2018 Estimated Water Use (Summary Report). Retrieved from <https://www.nwfwater.com/Data-Publications/Water-Use-Data>.

<sup>52</sup> Florida Department of Environmental Protection. 2015. Aquifers. Retrieved from <https://fldep.dep.state.fl.us/swapp/Aquifer.asp#SGA>.

<sup>53</sup> Florida Department of Environmental Protection. 2015. Aquifers. Retrieved from <https://fldep.dep.state.fl.us/swapp/Aquifer.asp#SGA>.

<sup>54</sup> Emerald Coast Utilities Authority. n.d. Protecting Our Water Supply. Retrieved from <https://ecua.fl.gov/services/water-services>.

## Chapter 4 ENVIRONMENTAL CONSEQUENCES

### 4.1 Introduction

This chapter presents the potential environmental consequences that would result from the construction of the Proposed Development Project. Important thresholds and factors, established in the FAA 1050.1F Desk Reference<sup>55</sup>, are used to determine whether a potential impact would be significant.

### 4.2 Air Quality

The Proposed Development Project is expected to increase air emissions from construction and operational activities. The air quality effects of the Proposed Development Project have been evaluated using the Aviation Environmental Design Tool (AEDT), and emissions inventories have been performed for each impact category.

As mentioned in **Section 1.6**, annual aircraft operations will increase in the Proposed Development Project site by 20 and 40 in years 2024 and 2029, respectively. These minor activity increases will not change the Airport's capacity or operational characteristics. Compared to the No-Action Alternative, the additional aircraft operations created by the Proposed Development Project would not result in a substantial increase in air emissions. The change in air emissions at the Airport is expected to be minimal and not approach any thresholds that would result in a significant impact.

The complete emissions inventory for operational and construction emissions for the No-Action Alternative and Proposed Development Project for the current year (2020) and the operational years, 2024/2025<sup>56</sup> and 2029 are available in the Criteria Air Pollutant and Greenhouse Gas Emissions Inventory Report (**Appendix J**).

When the total projected traffic and airport operations were added together, the difference between the estimated emissions for the Proposed Development Project compared to the existing base year emissions is more a function of projected growth than from the project itself. The difference between the 2024 Proposed Development Project compared to the No-Action Alternative ranges from 0.001 percent to 0.060 percent for the criteria pollutant emissions and approximately 0.500 percent for the carbon dioxide equivalent (CO<sub>2</sub>e)<sup>57</sup> emissions. Similarly, for 2029, the Proposed Development Project compared to the No-Action Alternative ranges from 0.060 percent to 0.200 percent and approximately

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<sup>55</sup> Federal Aviation Administration. 2020. 1050.1F Desk Reference. Retrieved from [https://www.faa.gov/about/office\\_org/headquarters\\_offices/apl/environ\\_policy\\_guidance/policy/faa\\_nepa\\_order/desk\\_ref/](https://www.faa.gov/about/office_org/headquarters_offices/apl/environ_policy_guidance/policy/faa_nepa_order/desk_ref/).

<sup>56</sup> The Titan MRO Complex Traffic Impact Analysis (Appendix H) did not model the 2024 opening year due to Escambia County's preference of using 2025 data for the analysis. The difference between 2024 and 2025 traffic volumes would be negligible and should therefore be considered equivalent. Air emissions were estimated using the Emissions and Dispersion Modeling System (EDMS)/Aviation Environmental Design Tool (AEDT) for projected annual aircraft operations in the opening year (2024), and five years beyond opening year (2029) based on operations published in the FAA Terminal Area Forecast (TAF).

<sup>57</sup> Carbon dioxide equivalent is a measurement used to convert different greenhouse gases to the equivalent amount of carbon dioxide based on global warming potentials.



0.870 percent for the CO<sub>2</sub>e emissions. This difference indicates that the increase in emissions from the Proposed Development Project will be minimal compared to emissions resulting from the overall growth in vehicle traffic and airport operations associated with the Airport under the No-Action Alternative. Impacts resulting from the Proposed Development Project are not considered significant.

### 4.3 Biological Resources

#### 4.3.1 Habitat

The vegetated Florida Land Use, Cover, and Forms Classification Systems (FLUCFCS) classifications associated with the Proposed Development Project site include open land and upland hardwood forests, as shown on **Figure 3-4 (Appendix A)**. The potential direct impacts of the Proposed Development Project would include the permanent loss of these land use and cover types with acreages listed in **Table 4-1**. The land use and cover types that would be directly impacted by construction are not considered rare or unique for this region.

*Table 4-1: FLUCFCS Acreage Within the Proposed Development Project Site*

Code	Description	Acres
1422	Mini-Warehouses	2.60
190	Open Land	8.65
192/420	Inactive Land with street patterns but without structures/ Upland Hardwood Forests	38.28
194	Other Open Land	1.01
420	Upland Hardwood Forests	13.17
530	Reservoirs (Stormwater Ponds)	3.03
811	Airports	7.86
Total Acres		<b>74.60</b>

Indirect areas are those areas next to the project site that would be impacted by the Proposed Development Project's construction. These impacts include noise, lighting, and additional stormwater runoff. The FLUCFCS classifications and codes for these areas include Commercial and Services (140), Airport (811), and one Fixed Single-Family Unit (121).

#### 4.3.2 Wildlife

The Proposed Development Project would permanently convert approximately 22 acres of upland hardwood forest and open land habitats. The upland hardwood forest community is dominated by hardwood tree species, including live oak. Undeveloped open land areas contain bahia grass and Bermuda grass. Common wildlife species found in the Proposed Development Project site include eastern gray squirrel, raccoon, and opossum. These wildlife species are traditionally associated with the land use communities in the Proposed Development Project site and have adapted to live within or next to an urbanized setting.

The Proposed Development Project would have a direct impact on these wildlife species from the permanent loss of habitat and increased noise associated with construction and operational activities. The permanent loss of habitat would have only a minor impact since the wildlife species can move to nearby areas and avoid long-term effects. Additionally, the increased noise from construction would only be temporary.

The Proposed Development Project could impact the state-threatened gopher tortoise. However, any tortoises found within the site will have to be moved in accordance with the Florida Fish and Wildlife Conservation Commission (FFWCC) *Gopher Tortoise Permitting Guidelines*.

The remaining land uses within the Proposed Development Project site, including commercial mini-warehouses and airport-related facilities, provide minimal habitat for plant or wildlife species. In addition, the larger stormwater pond, located in the southern portion of the Proposed Development Project site, will remain in the final design. Impacts to this area would be limited to the surrounding construction.

The introduction and spread of invasive plant species would be a potential indirect impact of the Proposed Development Project. Construction equipment has the potential to bring in invasive species from off-site locations and spread invasive species currently found on-site. In addition, disturbed land and edge habitats create the right conditions for invasive plants to move in. The introduction of invasive species can be reduced by making sure that equipment entering the construction site has been cleaned of any outside plants and soils. Other prevention measures will include using native seed blends to stabilize on-site soils and including native plants in landscaping. Additional indirect impacts associated with the Proposed Development Project would include higher mortality rates for wildlife from vehicle interactions and the decrease in food from loss of habitat.

### 4.3.3 Federally Protected Species

#### 4.3.3.1 Eastern Indigo Snake (*Drymarchon corais couperi*)

No eastern indigo snakes were observed during the field surveys conducted on June 22-23, 2020 (**Appendix C**). In addition, the Florida Natural Areas Inventory (FNAI) Biodiversity Matrix Report did not include documented occurrence of this species (**Appendix C, Attachment F**). The eastern indigo snake can use gopher tortoise burrows for shelter. Given the presence of gopher tortoise burrows within the Proposed Development Project site, there is a potential for this species to occur; however, the probability of occurrence is considered low. Using the *Eastern Indigo Snake Programmatic Effect Determination Key* (**Appendix C, Attachment G**), it is anticipated that this project would be **“not likely to adversely affect”** the eastern indigo snake.

#### 4.3.3.2 Reticulated Flatwoods Salamander (*Ambystoma bishopi*)

No suitable breeding or non-breeding habitat is located within the Proposed Development Project site for the reticulated flatwoods salamander. In addition, the Proposed Development Project site is not located within the reticulated flatwoods salamander critical habitat as determined in the USFWS Information for Planning and Consultation (IPaC) report (**Appendix C, Attachment F**). Based on the lack

of suitable habitat and absence of critical habitat, the Proposed Development Project is expected to have “**no effect**” on the reticulated flatwoods salamander.

#### 4.3.3.3 Wood Stork (*Mycteria americana*)

No Wood Storks or Wood Stork nests were observed during field surveys. In addition, the Proposed Development Project site is not located within a USFWS 2009-2019 Florida Active Nesting Colonies and Core Foraging Area.<sup>58</sup> Using the *Effect Determination Key for the Wood Stork in North Florida (Appendix C, Attachment G)*, it is anticipated that the Proposed Development Project would be “**not likely to adversely affect**” the Wood Stork.

#### 4.3.3.4 Migratory Birds

Bird species protected under the Migratory Bird Treaty Act including the downy woodpecker were observed at the time of the site visit, although no nests were directly identified within the Proposed Development Project site. Pre-construction nesting surveys would be conducted if construction occurs during the breeding season (April 10 to October 31<sup>59</sup>). If a migratory bird species nest is observed, then construction would stop in areas around the nesting site. Consultation with the USFWS would occur for guidance on ways to avoid and minimize impacts. Given that additional large aircraft operations will increase by a maximum of 40 per year, the proposed project is unlikely to increase the risk of a bird strike with a migratory bird. The Proposed Development Project is not anticipated to result in significant impacts to migratory birds.

#### 4.3.3.5 Bald Eagle

Based on data from the FFWCC Bald Eagle Nest Locator Map (2016-2017 Nesting Season), a desktop survey showed that the nearest documented nest is approximately 4.0 miles away from the Proposed Development Project boundary (**Appendix C, Attachment E**).<sup>60</sup> Additionally, no Bald Eagles or nests were observed during field surveys (**Appendix C**). If active nests are found within 660 feet of the construction buffer zone of the Proposed Development Project site before or during construction, the USFWS would need to be contacted to coordinate any further actions. Given these determinations, it is concluded that construction and operations within the Proposed Development Project site would have no impact on the Bald Eagle.

### 4.3.4 State-Protected Species

A gopher tortoise survey (100 percent) was conducted within the Proposed Development Project site on June 23-24, 2020, by an FFWCC Authorized Gopher Tortoise Agent. Suitable habitat is present within the Proposed Development Project site. One tortoise was observed during this survey, with 15 potentially occupied gopher tortoise burrows and one abandoned gopher tortoise burrow located.

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<sup>58</sup> U.S. Fish and Wildlife Service – North Florida Ecological Services Office. 2020. Wood Stork Florida Nesting Colonies Map. Retrieved from <https://www.fws.gov/northflorida/WoodStorks/wood-storks.htm>.

<sup>59</sup> The USFWS IPaC report identified this breeding season date range for migratory bird species of particular concern for the Proposed Development Project site.

<sup>60</sup> Florida Fish and Wildlife Conservation Commission (FWC). 2020. Bald Eagle Management. Retrieved from <https://myfwc.com/wildlifehabitats/wildlife/bald-eagle/management/>.

In accordance with the *Gopher Tortoise Permitting Guidelines*, a gopher tortoise relocation permit will be needed for all gopher tortoise burrows occurring on and within 25 feet of the construction site or areas where there may be site preparation activities. A gopher tortoise survey is only valid for 90 days, so another 100 percent survey is required before gopher tortoise relocation efforts begin. With surveys performed in accordance with the FFWCC *Gopher Tortoise Permitting Guidelines* and associated agency coordination and permitting before construction, no significant impacts would be anticipated for the gopher tortoise.

#### 4.4 Climate

The construction and operational phases of the Proposed Development Project would produce increases in greenhouse gas (GHG) emissions. Operational emissions include traffic emissions from on-road traffic traveling to and from the Proposed Development Project site, as well as emissions that result from additional aircraft operations. The Criteria Air Pollutant and Greenhouse Gas Emissions Inventory Report (**Appendix J**) analyzed GHG emission changes for the years 2025 and 2029 when compared to the No-Action Alternative. For operational activities, the overall change in GHG emissions measured in CO<sub>2</sub>e is estimated to increase by 569 metric tons (0.50 percent) and 1026 metric tons (0.87 percent) for the years 2025 and 2029, respectively. The construction phase of the Proposed Development Project would produce temporary increases in emissions that result from construction activities and equipment. Construction equipment exhaust emissions in CO<sub>2</sub>e is estimated to total 8,147 metric tons, which would occur over a four-year timespan.

The FAA has not established a significance threshold for GHG emissions. Based on the analysis provided in this assessment, GHG emissions increases associated with the Proposed Development Project contribute relatively small percentage increases compared with background totals at the Airport.

#### 4.5 Coastal Resources

The FAA has not established a significance impact threshold for coastal resources in FAA Order 1050.1F. Some factors to consider when evaluating whether impacts would be significant include whether the Proposed Development Project would have the potential to:

- Be consistent with the relevant state coastal zone management plan(s);
- Impact a coastal barrier resources system unit (and the degree to which the resource would be impacted);
- Pose an impact to coral reef ecosystems (and the degree to which the ecosystem would be affected);
- Cause an unacceptable risk to human safety or property; or
- Cause adverse impacts to the coastal environment that cannot be satisfactorily mitigated.

The Proposed Development Project site is not located within the Coastal Barrier Resources System. The closest unit, Basin Bayou (FL-102), is approximately 5 miles east of the site boundary.<sup>61</sup> The Proposed Development Project is located within Florida's coastal zone and is thus subject to Florida Coastal Management Program (FCMP) federal consistency review. This consistency review will be initiated with the submission of the Draft EA to the Florida State Clearinghouse.

#### 4.6 Department of Transportation Act, Section 4(f) Resources

Section 4(f) of the USDOT Act (49 U.S.C. § 303(c)) protects publicly owned parks, recreation areas, and wildlife and waterfowl refuges and historic properties or archaeological sites (whether publicly or privately owned) on, or eligible for listing on, the National Register of Historic Places (NRHP) (collectively "Section 4(f) properties"). The FAA, as an operating administration within USDOT, may not approve the use of a Section 4(f) property unless it determines that there is no feasible and prudent alternative to avoid the use of the property and the action includes all possible planning to minimize harm resulting from such use, or the project has a *de minimis* impact consistent with the requirements of Title 49 U.S.C. Section 303(d).

FAA Order 1050.1F (February 2020) outlines the requirements under the FAA's NEPA implementing procedures and contains FAA processes and protocols for analyzing the potential use of Section 4(f) resources. In addition, although not subject to the Federal Highway Administration and Federal Transit Administration regulations implementing Section 4(f), the FAA uses them as additional guidance.

Under Section 4(f), a "use" of a protected property can occur in one of three ways:

- When land is permanently incorporated into a transportation facility (i.e., demolition or land acquisition) and the acquisition does not meet the *de minimis* criteria;
- When there is a temporary occupancy of land that is adverse in terms of the statute's preservationist purposes (i.e., physical alteration of the land during construction); however, the Section 4(f) property must be restored to its original condition (e.g., regrading or revegetating the area); or
- When there is a constructive use of a Section 4(f) property (i.e., ancillary impacts such as noise, vibration, air quality, and visual impacts that effectively act as a permanent incorporation).

A constructive use occurs when the transportation project does not incorporate land from a Section 4(f) resource, but the project's proximity impacts are so severe that the protected activities, features, or attributes that qualify a resource for protection under Section 4(f) are substantially impaired. Substantial impairment occurs only when the protected activities, features, or attributes of the resource are substantially diminished.

There are no Section 4(f) resources located within the Proposed Development Project site. Construction associated with the Proposed Development Project would occur exclusively on Airport

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<sup>61</sup> U.S. Fish and Wildlife Service. 2019. CBRS Mapper. Retrieved from <https://www.fws.gov/CBRA/Maps/Mapper.html>.

property and would not demolish, acquire, or temporarily occupy a Section 4(f) resource. Therefore, the Proposed Development project would not result in a physical use of any Section 4(f) resource.

Three Section 4(f) resources are located within the 2020 base year DNL 65 dB noise contour: Pensacola Aviation Discovery Park, Roger Scott Athletic Complex, and Lavallet Park (**Figure 3-5, Appendix A**). Characteristics of the parks and their land use compatibilities are detailed in **Section 3.2.10.2**. These resources were evaluated for constructive use as a result of the Proposed Development Project. Noise from an increase in aircraft operations is a potential ancillary impact from the Proposed Development Project that could result in the constructive use of a Section 4(f) property. The noise analysis in **Section 4.11.1** shows that there is no increase in the DNL 65 dB, DNL 70 dB, or DNL 75 dB contour areas for recreational land use from the Proposed Development Project in 2024 or 2029 compared to the No-Action Alternative (**Table 4-4**). As a result, there would be no constructive use of a Section 4(f) property from the Proposed Development Project.

## 4.7 Hazardous Materials, Solid Waste, and Pollution Prevention

### 4.7.1 Hazardous Materials

The Proposed Development Project site was evaluated for hazardous substance contamination during the Phase I ESA (**Appendix D**) and Phase II ESA (**Appendix E**). The Phase I ESA identified a nearby dry-cleaning solvent cleanup site as a recognized environmental condition (REC). The off-site dry-cleaning solvent site is enrolled in Florida's Dry-cleaning Solvent Cleanup Program, which will provide funding for the assessment and, if needed, cleanup of contamination associated with the site.

The Phase II ESA examined the Proposed Development Project site for contamination through soil and groundwater sampling. No soil impacts were identified during the soil sample analyses. Groundwater contaminants above Cleanup Target Levels (CTLs)—including nickel, chromium, and the organochlorine pesticide dieldrin—were identified at well locations within the Proposed Development Project site. The depth from the ground to groundwater across the study site generally is greater than 30 feet. Construction of the Proposed Development Project associated with groundwater resources will be limited to driven piles and will not require the use or relocation of groundwater resources. Therefore, impacts associated with the identified groundwater contaminants are not expected to be significant.

The Proposed Development Project would generate hazardous waste typically associated with MRO operations, including oil, grease, lubricants, paints, solvents, degreasers, and other potentially hazardous materials that are regulated under federal and state programs. The MRO Operator is registered as a small-quantity hazardous waste generator (SQG) for hazardous waste (EPA ID: FLR000226647) for the Phase One MRO operations, generating between 100 and 1,000 kilograms of hazardous waste per month. Under the No-Action Alternative, the hazardous waste quantities currently produced are expected to remain the same. It is anticipated that additional hazardous waste produced by the Proposed Development Project would not exceed the SQG limits. The MRO Operator will be required to obtain and comply with all required federal and state permits and registrations necessary for their operations.

#### 4.7.2 Solid Waste and Pollution Prevention

The Proposed Development Project construction is expected to generate solid waste associated with land clearing/grading, construction of buildings, and roadway paving. These solid wastes may include vegetative debris from tree and shrub removal, building construction waste, and waste generated by construction workers. Recycling, composting/mulching, and other methods will be used when applicable. Construction waste that is not reused or recycled will be handled in accordance with state and local laws and disposed of at local permitted facilities. The Proposed Development Project construction is not anticipated to generate any different quantity or type of solid waste or to exceed local disposal facility capacity.

The MRO operational facilities, which include the hangars and support services center, are expected to generate solid waste similar to what is generated by other Airport tenants, including: metals, glass, plastics, and cardboard/paper. It is estimated by the MRO Operator that 720 cubic yards of waste would be generated per year from the hangar and support services center operations.<sup>62</sup> The Proposed Development Project also includes the construction and operation of a commercial office building. Based on waste generation standards presented in the U.S. General Services Administration's *Waste Management Desk Guide*, the proposed office building would generate approximately 2,880 cubic yards of solid waste per year.<sup>63</sup> The City of Pensacola's recycling programs would be used to reduce the amount of solid waste entering landfill facilities. In addition, some production-related waste, including metals, could be recycled using private recycling companies. It is anticipated that local solid waste and recycling facilities could accommodate the additional materials from the Proposed Development Project.

#### 4.8 Historic, Architectural, Archaeological, and Cultural Resources

Based on the Cultural Resources Technical Review included in **Appendix F**, the Proposed Development Project would have no effect on historic resources listed, or eligible for listing, on the NRHP within the area of potential effects (APE). The Florida Division of Historical Resources' Deputy State Historic Preservation Officer for Compliance and Review evaluated the coordination documents and concluded that the Proposed Development Project would have no effect on historic properties listed, or eligible for listing, on the NRHP (**Appendix G**). The Proposed Development Project is not anticipated to directly or indirectly affect any historic resources listed, or eligible for listing, on the NRHP. In the event of an unanticipated discovery of historic resources, guidelines outlined in the Florida Division of Historical Resources correspondence (**Appendix G**) will be followed.

Consultation with Tribes was initiated by the FAA on August 17, 18, and 19, 2021. Email correspondences from the Choctaw Nation of Oklahoma (September 17, 2021) and the Muscogee (Creek) Nation (September 20, 2021; September 22, 2021; October 11, 2021) were received and concur with the finding of "no effect." Both Tribes requested that all work cease, and appropriate agencies and tribes be notified in the event of an inadvertent discovery of any cultural resource, human

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<sup>62</sup> Federal Aviation Administration Orlando Airports District Office. 2015. Environmental Assessment- Proposed MRO Facility Pensacola International Airport.

<sup>63</sup> U.S. General Services Administration. n.d. Waste Management Desk Guide. Retrieved from [https://www.gsa.gov/cdnstatic/Waste\\_Management\\_Desk\\_Guide.pdf](https://www.gsa.gov/cdnstatic/Waste_Management_Desk_Guide.pdf).

remains, or Native American Graves Protection and Repatriation Act-related item. Project notice and invitation for consultation letters are available in **Appendix G**.

## 4.9 Land Use and Surface Transportation

### 4.9.1 Land Use

The Proposed Development Project site is located completely within the Airport property. In the past, this area was made up of a mixture of residential and commercial land uses. The Proposed Development Project likely would result in a zoning change within the site boundary to an airport restricted zoning (ARZ) category. The Proposed Development Project would not require changes to the local comprehensive plan or the zoning map for nearby off-airport areas. The future land use category for the nearby off-airport areas is listed as mixed-use urban<sup>64</sup>, and the Proposed Development Project is unlikely to impact or change this land use category. Impacts to off-airport land uses are limited to improving 60 feet of storage to the westbound left-turn lane on Underwood Avenue at 9th Avenue.

The Proposed Development Project is not expected to be near wildlife or create a potential hazard to wildlife. An existing stormwater pond is located in the south section of the site (**Figure 3-4, Appendix A**). Stormwater ponds are listed in the FAA Advisory Circular 150/5200-33 as a land use practice that could potentially attract wildlife. Stormwater from the Proposed Development Project will be routed to this existing stormwater pond as it has adequate capacity. The existing pond does not and will not exceed the maximum 48-hour detention period that would make it attractive to waterfowl and other wildlife.

### 4.9.2 Surface Transportation

The Traffic Impact Analysis (**Appendix H**) identified the traffic volume generated by the Proposed Development Project and how that additional volume could affect the surrounding roadway network. Project trips were identified using the Institute of Transportation Engineers (ITE) *Trip Generation Manual*, 10th Edition<sup>65</sup>, and analysis followed the methodologies prescribed in the ITE *Trip Generation Handbook*, 3rd Edition.<sup>66</sup> A total of 3,793 daily trips were determined to be generated by the Proposed Development Project. The trips were distributed and applied to the area roadway network using a manual distribution method based on the 2025 background traffic volume distribution. Impacts to individual roadways and intersections were minimal. For example, the daily traffic volume for the segment of Tippin Avenue from Underwood Avenue to Airport Boulevard was 19,950 in the 2020 existing condition, 20,510 for the 2025 background condition, and 21,350 for the 2025 build condition. This is an increase of 840 vehicles on this road segment (**Appendix H**).

A summary of the traffic impact results includes the following:

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<sup>64</sup> Escambia County. n.d. CityView (GoMaps 4.0). Retrieved from <https://www.cityofpensacola.com/222/CityView>.

<sup>65</sup> Institute of Transportation Engineers. 2017. *Trip Generation Manual* 10th Edition. Washington, D.C.

<sup>66</sup> Institute of Transportation Engineers. 2017. *Trip Generation Handbook* 3rd Edition. Washington, D.C.



- Historical and existing traffic counts show that all study area road segments and intersections perform within the County's adopted level of service<sup>67</sup> (LOS) targets (with LOS A to LOS D considered acceptable), except for the Tippin Avenue and 9th Avenue intersection which is currently operating below Escambia County's LOS thresholds at LOS E in the evening peak period (4:15 PM to 5:15 PM).
- In the forecasted 2025 background volumes, all road segments and intersections, with the exception of the Tippin Avenue and 9th Avenue intersection, perform within the County's adopted LOS targets. The Tippin Avenue and 9<sup>th</sup> Avenue intersection is estimated to operate at LOS F based on forecasted 2025 background volumes. The Proposed Development Project will add 65 trips to forecasted 2025 operations; however, this represents 1.6% of total volume for this intersection and has no effect on the intersection's LOS (i.e., will remain at LOS F). No mitigation is required.
- Results of the road segment and intersection analysis conclude that the net new trips generated by the Proposed Development Project are not expected to impact the existing facilities beyond their 2025 forecasted performance metrics.
- Results of the driveway turn-lane evaluation indicates that no new left-turn or right-turn lanes are required at the Proposed Development Project access points.
- Analysis of existing left-turn storage lengths was done to determine if the available storage and queue length remained acceptable in the future conditions. The following improvements are proposed as mitigation.
  - The southbound left-turn lane into the Proposed Development Project site along Tippin Avenue has enough storage but center-lane striping will need to be redesigned.
  - The westbound left-turn lane on Underwood Avenue at 9th Avenue is not long enough during the PM peak period (4:15 p.m. to 5:15 p.m.) and requires an additional 60 feet of storage to meet Florida Department of Transportation (FDOT) design recommendations.
- Access to the project site for employees would be provided from Tippin Avenue at its intersection with Underwood Avenue, which will be improved and signalized by the City as part of a separate project.

Based on the findings of the Traffic Impact Analysis (**Appendix H**), the surrounding network has available capacity beyond the trips that will be generated by the Proposed Development Project, so the study area traffic performance will not be impacted.

Additional information on methodology and results are provided in the Traffic Impact Analysis (**Appendix H**).

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<sup>67</sup> Level of service (LOS) is a qualitative measure used to relate the quality of motor vehicle traffic service. Typically, six levels of service are defined, and each is assigned a letter from A to F, with LOS A representing the best operating conditions, and LOS F the worst.

## 4.10 Natural Resources, Energy Supply, and Sustainable Design

### 4.10.1 Natural Resources

The Proposed Development Project (Phase Two) operations will need natural gas resources, with the demand anticipated to be 20,204 CCF (100 cubic feet of natural gas) per year for the hangars and support services center. This estimate is based on available (year 2020) monthly averages for the currently operational MRO facility at the Airport (Phase One), which includes buildings similar in design and size.

In addition to hangars and a support services center, the administration office building aspect of the Proposed Development Project will also require natural gas. Based on data from the U.S. Energy Information Administration's *Commercial Buildings Energy Consumption Survey* (CBECS), it is estimated that the administration office building would use approximately 32,160 CCF of natural gas per year.<sup>68</sup> The natural gas supplier at the Airport, Pensacola Energy, is expected to accommodate this increase of 52,364 CCF in demand from the Proposed Development Project without concern.

A significance threshold for natural resources and energy supply has not been established by the FAA. However, it is recommended that the Proposed Development Project be evaluated on the potential to cause energy demands to exceed available or future supplies.<sup>69</sup> The implementation of the Proposed Development Project is not expected to exceed current or future energy supplies.

### 4.10.2 Energy Supply

The Proposed Development Project would build two aircraft hangars, a support services center, and an office building. These buildings would require energy associated with their daily operations, including lighting, air conditioning, power for MRO equipment, and hangar ventilation fans. The electrical energy demand for the aircraft hangars and support services center is estimated at 3.5 million kilowatts (kW) per year. This estimate is based on values established for the current MRO operations at the Airport, which include buildings similar in design and size.<sup>70</sup> The CBECS data were used to create estimates of electrical energy demand associated with office building-related activities. The average electrical energy use in the office building category was 15.9 kilowatt-hours (kWh) per square foot for the most recently available (2012) data. Thus, a 120,000-square-foot office building is estimated to require an average of 1.908 million kW per year. The electrical power supplier at the Airport, Gulf Power Company, is expected to meet these electrical power demands without concern.

### 4.10.3 Sustainable Design

The Proposed Development Project will incorporate sustainable design elements into construction and operations when it can. Sustainable design elements may include the reuse of on-site asphalt as base material and preservation of larger on-site trees. An additional objective of the Proposed Development

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<sup>68</sup> U.S. Energy Information Administration. 2016. Commercial Buildings Energy Consumption Survey (2012). Retrieved from <https://www.eia.gov/consumption/commercial/data/2012/>.

<sup>69</sup> Federal Aviation Administration. 2020. 1050.1F Desk Reference. Retrieved from [https://www.faa.gov/about/office\\_org/headquarters\\_offices/apl/environ\\_policy\\_guidance/policy/faa\\_nepa\\_order/desk\\_ref/](https://www.faa.gov/about/office_org/headquarters_offices/apl/environ_policy_guidance/policy/faa_nepa_order/desk_ref/).

<sup>70</sup> Federal Aviation Administration Orlando Airports District Office. 2015. Environmental Assessment- Proposed MRO Facility Pensacola International Airport.

Project is to minimize the import or export of fill material. This minimization will reduce emissions and vehicle traffic related to transporting these materials to or from off-site locations. Sustainable design elements related to operational activities of the Proposed Development Project could include adding electric vehicle charging stations in parking areas and possibly using autonomous vehicles for parts storage and transportation.

## 4.11 Noise and Noise Compatible Land Use

### 4.11.1 Noise Analysis

#### 4.11.1.1 Introduction

The FAA provides aircraft noise screening tools and methodologies to determine if more detailed noise analysis is needed. One tool is the Area Equivalent Method (AEM) which compares the number of aircraft operations in a certain year to those associated with a proposed action. If the AEM calculations indicate that the proposed action would result in less than a 17-percent (approximately 1 DNL dB) increase in the DNL 65 dB contour area, there would be no significant impact to noise sensitive areas and no additional noise analysis would be required. However, if the AEM calculations indicate an increase of 17 percent or more, or if the action contradicts use of the AEM, then the noise analysis must be done using the AEDT to determine if significant noise impacts would result.

The use of AEM was explored; however, since air emissions analysis was done using AEDT, this tool also was used to evaluate the change in aircraft noise exposure in the Airport's surrounding area potentially resulting from implementation of the Proposed Development Project.

**Appendix B** details the AEDT data inputs such as, but not limited to, aircraft fleet mix and operations forecasts (FAA's July 2021 TAF), flight paths/tracks, track utilization rates, and percentages of hours of operation. It also details the Proposed Development Project's expected fleet mix and annual operations for opening year (2024) and five years beyond (2029). As was previously discussed in **Section 1.6**, the Proposed Development Project is expected to increase the Airport's number of annual aircraft operations by 20 in 2024 and by 40 in 2029. Results of the AEDT analyses confirmed that the Proposed Development Project would result in negligible increases to the DNL 65 dB contours, which are detailed in the following sections.

#### 4.11.1.2 Year 2024 No-Action Alternative and Proposed Development Project

**Figures 4-1** and **4-2 (Appendix A)** depict the Noise Exposure Map (NEM) associated with the 2024 No-Action Alternative. **Figures 4-3** and **4-4 (Appendix A)** depict the NEM associated with the 2024 Proposed Development Project. Land use and population estimates organized by contour intervals for the 2024 No-Action Alternative and 2024 Proposed Development Project can be seen in **Tables 4-2** and **4-3**. The land use and population changes between the 2024 No-Action Alternative and 2024 Proposed Development Project are available in **Table 4-4**. As seen in **Table 4-4**, the estimated noise contour expansion from the Proposed Development Project will occur primarily within compatible land use categories including current airport usage. The estimated noise contour expansion from the Proposed Development Project is not anticipated to occur within noise sensitive land uses or increase the number of noise sensitive sites located within the DNL 65 dB, DNL 70 dB, and DNL 75 dB noise contours

(Table 4-4). Outcomes of the AEDT noise analyses for Year 2024 indicate that significant noise impacts in the Airport’s vicinity are not anticipated because of the Proposed Development Project.

Table 4-2: Land Use and Population Estimates – No-Action Alternative (2024)

Land Use Category	Land Uses Exposed to DNL 65 and Higher (acres)				Residences within DNL 65	Population within DNL 65
	DNL 65-70	DNL 70-75	DNL 75+	Total		
Airport	233.23	179.47	219.02	631.72	0	0
Commercial and Services	5.25	0.01	0	5.26	0	0
Institutional (includes nursing home)	0.22	0	0	0.22	0	0
Recreational	12.07	9.04	4.55	25.66	0	0
Residential Low Density	0.77	0	0	0.77	2	5
Residential Medium Density	3.75	0	0	3.75	7	17
Residential High Density	5.94	0	0	5.94	21	50
Other Land Use	137.60	8.42	1.77	147.79	0	0
<b>Total</b>	<b>398.83</b>	<b>196.94</b>	<b>225.34</b>	<b>821.11</b>	<b>30</b>	<b>72</b>

Sources: Florida Department of Environmental Protection. 2017. Statewide Land Use Land Cover. Retrieved from <https://geodata.dep.state.fl.us/search?collection=Dataset>; University of Florida GeoPlan Center. 2018. Florida Parcel Data Statewide – 2018. Retrieved from <https://www.fgdl.org/metadataexplorer/explorer.jsp>; U.S. Census Bureau. 2019. QuickFacts- Pensacola City, Florida. Retrieved from <https://www.census.gov/quickfacts/fact/table/pensacolacityflorida,DC/PST045219>.

Notes: If a portion of a parcel was located within the contour, the entire acreage was included in the table above. Residences and population estimates were included if the contour intersected with the main structure on the parcel. Population estimates for single family residences were calculated by multiplying the number of units by the average persons per household (2.36) for the City of Pensacola, then rounding to the nearest whole number.

Table 4-3: Land Use and Population Estimates – Proposed Development Project (2024)

Land Use Category	Land Uses Exposed to DNL 65 and Higher (acres)				Residences within DNL 65	Population within DNL 65
	DNL 65-70	DNL 70-75	DNL 75+	Total		
Airport	233.23	179.47	219.02	631.72	0	0
Commercial and Services	5.25	0.01	0	5.26	0	0
Institutional (includes nursing home)	0.22	0	0	0.22	0	0
Recreational	12.07	9.04	4.55	25.66	0	0

Land Use Category	Land Uses Exposed to DNL 65 and Higher (acres)				Residences within DNL 65	Population within DNL 65
	DNL 65-70	DNL 70-75	DNL 75+	Total		
Residential Low Density	0.77	0	0	0.77	2	5
Residential Medium Density	3.75	0	0	3.75	7	17
Residential High Density	5.94	0	0	5.94	21	50
Other Land Use	137.60	8.42	1.77	147.79	0	0
<b>Total</b>	<b>398.83</b>	<b>196.94</b>	<b>225.34</b>	<b>821.11</b>	<b>30</b>	<b>72</b>

Sources: Florida Department of Environmental Protection. 2017. Statewide Land Use Land Cover. Retrieved from <https://geodata.dep.state.fl.us/search?collection=Dataset>; University of Florida GeoPlan Center. 2018. Florida Parcel Data Statewide – 2018. Retrieved from <https://www.fgd.org/metadataexplorer/explorer.jsp>; U.S. Census Bureau. 2019. QuickFacts- Pensacola City, Florida. Retrieved from <https://www.census.gov/quickfacts/fact/table/pensacolacityflorida,DC/PST045219>.

Notes: If a portion of a parcel was located within the contour, the entire acreage was included in the table above. Residences and population estimates were included if the contour intersected with the main structure on the parcel. Population estimates for single family residences were calculated by multiplying the number of units by the average persons per household (2.36) for the City of Pensacola, then rounding to the nearest whole number.

*Table 4-4: Land Use and Population Estimates – No-Action Alternative and Proposed Development Project Comparison (2024)*

Land Use Category	Change in Land Uses (acres)				Change in Number of Residences	Change in Population
	DNL 65-70	DNL 70-75	DNL 75+	Total		
Airport	0	<0.01 (163sf)	<0.01 (57sf)	<0.01 (220sf)	0	0
Commercial and Services	0	0	0	0	0	0
Institutional (includes nursing home)	0	0	0	0	0	0
Recreational	0	0	0	0	0	0
Residential Low Density	0	0	0	0	0	0
Residential Medium Density	0	0	0	0	0	0
Residential High Density	0	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>&lt;0.01 (163sf)</b>	<b>&lt;0.01 (57sf)</b>	<b>&lt;0.01 (220sf)</b>	<b>0</b>	<b>0</b>

4.11.1.3 Year 2029 No-Action and Proposed Action Alternatives

Figures 4-5 and 4-6 (Appendix A) depict the NEM associated with the 2029 No-Action Alternative. Figures 4-7 and 4-8 (Appendix A) depict the NEM associated with the 2029 Proposed Development Project. Land use and population estimates organized by contour intervals for the 2029 No-Action Alternative and 2029 Proposed Development Project can be seen in Tables 4-5 and 4-6. The land use and population changes between the 2024 No-Action Alternative and 2024 Proposed Development Project are available in Table 4-7. As seen in Table 4-7, the estimated noise contour expansion from the Proposed Development Project will occur primarily within compatible land use categories including commercial and services and current airport usage. The estimated noise contour expansion from the Proposed Development Project is not anticipated to occur within noise sensitive land uses or increase the number of noise sensitive sites located within the DNL 65 dB, DNL 70 dB, and DNL 75 dB noise contours (Table 4-7). Outcomes of the AEDT noise analyses for Year 2029 indicate that significant noise impacts in the Airport’s vicinity are not anticipated because of the Proposed Development Project.

Table 4-5: Land Use and Population Estimates – No-Action Alternative (2029)

Land Use Category	Land Uses Exposed to DNL 65 and Higher (acres)				Residences within DNL 65	Population within DNL 65
	DNL 65-70	DNL 70-75	DNL 75+	Total		
Airport	235.67	181.17	222.82	639.66	0	0
Commercial and Services	5.64	0.01	0	5.65	0	0
Institutional (includes nursing home)	0.27	0	0	0.27	0	0
Recreational	12.10	9.16	4.71	25.97	0	0
Residential Low Density	0.96	0	0	0.96	2	5
Residential Medium Density	4.01	0	0	4.01	7	17
Residential High Density	6.32	0	0	6.32	23	54
Other Land Use	145.59	9.21	1.81	156.61	0	0
<b>Total</b>	<b>410.56</b>	<b>199.55</b>	<b>229.34</b>	<b>839.45</b>	<b>32</b>	<b>76</b>

Sources: Florida Department of Environmental Protection. 2017. Statewide Land Use Land Cover. Retrieved from <https://geodata.dep.state.fl.us/search?collection=Dataset>; University of Florida GeoPlan Center. 2018. Florida Parcel Data Statewide – 2018. Retrieved from <https://www.fgdl.org/metadataexplorer/explorer.jsp>; U.S. Census Bureau. 2019. QuickFacts- Pensacola City, Florida. Retrieved from <https://www.census.gov/quickfacts/fact/table/pensacolacityflorida,DC/PST045219>.

Notes: If a portion of a parcel was located within the contour, the entire acreage was included in the table above. Residences and population estimates were included if the contour intersected with the main structure on the parcel. Population estimates for single family residences were calculated by multiplying the number of units by the average persons per household (2.36) for the City of Pensacola, then rounding to the nearest whole number.

Table 4-6: Land Use and Population Estimates – Proposed Development Project (2029)

Land Use Category	Land Uses Exposed to DNL 65 and Higher (acres)				Residences within DNL 65	Population within DNL 65
	DNL 65-70	DNL 70-75	DNL 75+ dB	Total		
Airport	235.67	181.18	222.82	639.67	0	0
Commercial and Services	5.64	0.01	0	5.65	0	0
Institutional (includes nursing home)	0.27	0	0	0.27	0	0
Recreational	12.10	9.16	4.71	25.97	0	0
Residential Low Density	0.96	0	0	0.96	2	5
Residential Medium Density	4.01	0	0	4.01	7	17
Residential High Density	6.32	0	0	6.32	23	54
Other Land Use	145.59	9.21	1.81	156.61	0	0
<b>Total</b>	<b>410.56</b>	<b>199.56</b>	<b>229.34</b>	<b>839.46</b>	<b>32</b>	<b>76</b>

Sources: Florida Department of Environmental Protection. 2017. Statewide Land Use Land Cover. Retrieved from <https://geodata.dep.state.fl.us/search?collection=Dataset>; University of Florida GeoPlan Center. 2018. Florida Parcel Data Statewide – 2018. Retrieved from <https://www.fgdl.org/metadataexplorer/explorer.jsp>; U.S. Census Bureau. 2019. QuickFacts- Pensacola City, Florida. Retrieved from <https://www.census.gov/quickfacts/fact/table/pensacolacityflorida,DC/PST045219>.

Notes: If a portion of a parcel was located within the contour, the entire acreage was included in the table above. Residences and population estimates were included if the contour intersected with the main structure on the parcel. Population estimates for single family residences were calculated by multiplying the number of units by the average persons per household (2.36) for the City of Pensacola, then rounding to the nearest whole number.

Table 4-7: Land Use and Population Estimates – No-Action Alternative and Proposed Development Project Comparison (2029)

Land Use Category	Change in Land Uses (acres)				Change in Number of Residences	Change in Population
	DNL 65-70	DNL 70-75	DNL 75+ dB	Total		
Airport	<0.01 (35sf)	<0.01 (394sf)	<0.01 (134sf)	0.01 (563sf)	0	0
Commercial and Services	<0.01 (87sf)	0	0	<0.01 (87sf)	0	0
Institutional (includes nursing home)	0	0	0	0	0	0
Recreational	0	0	0	0	0	0

Land Use Category	Change in Land Uses (acres)				Change in Number of Residences	Change in Population
	DNL 65-70	DNL 70-75	DNL 75+ dB	Total		
Residential Low Density	0	0	0	0	0	0
Residential Medium Density	0	0	0	0	0	0
Residential High Density	0	0	0	0	0	0
<b>Total</b>	<b>&lt;0.01 (122sf)</b>	<b>&lt;0.01 (394sf)</b>	<b>&lt;0.01 (134sf)</b>	<b>0.01 (650sf)</b>	<b>0</b>	<b>0</b>

The results of the AEDT analyses show a negligible increase in aircraft noise exposure due to the Proposed Development Project, when compared to the No-Action Alternative for the same year. The Proposed Development Project would not cause a 1.5 DNL increase over noise sensitive land uses within the DNL 65 dB and higher contours. As such, the Proposed Development Project would not result in a significant noise impact.

#### 4.11.2 Additional Noise Sources

The Proposed Development Project would create other noise sources beyond aircraft operations, including short-term construction noise and vehicle traffic noise related to operational activities. Temporary increases in noise associated with earthwork, grading, paving, and building construction would affect only the immediate area during daylight hours. Along Tippin Avenue, there are several commercial parcels and one isolated residential parcel that are next to the Proposed Development Project boundary (**Figure 3-6, Appendix A**). The main structure on this residential property is approximately 200 feet from the Proposed Development Project boundary. This residence may experience periods of short-term construction noise. This residence will not experience a 1.5 dB increase in noise from the Proposed Development Project operations. Construction will follow requirements in Title XII of the City of Pensacola's Land Development Code<sup>71</sup> such as providing buffer yards between zoning districts and uses. For other business areas around the Proposed Development Project, temporary construction noise will not be substantial or long term.

Vehicle traffic noise associated with the MRO operation would include commuting staff and the drop-off and pick-up of materials. These relatively low increases in traffic movements are expected to have negligible effects on traffic noise and would not exceed roadway network capacity as concluded in **Section 4.9.2** and further described in the Traffic Impact Analysis (**Appendix H**). In addition to volume, noise is also a factor of roadway speeds, with increases in traffic speeds resulting in increases in noise levels. The speed limits for affected road segments are at or below 45 miles per hour (mph) (**Table 3-3,**

<sup>71</sup> [https://library.municode.com/fl/pensacola/codes/code\\_of\\_ordinances?nodeId=PTIICOOR\\_TITXIIADEC0](https://library.municode.com/fl/pensacola/codes/code_of_ordinances?nodeId=PTIICOOR_TITXIIADEC0)



**Section 3.2.8.2).** Given that the speed limits for affected roadway segments are relatively low and existing roadway noise is present (**Section 3.2.10.2**), noise impacts would be negligible.

#### **4.11.3 Mitigation Measures**

The Proposed Development Project will not create significant noise or noise-compatible land use impacts and mitigation measures are not required. However, mitigation measures can be taken to reduce noise and construction and operational measures are proposed to minimize noise disturbances for nearby properties. These measures include the proper use of mufflers for construction equipment. In addition, all County and City ordinances pertaining to noise, including appropriate construction hours (7:00AM to 7:00PM), will be observed.<sup>72</sup>

### **4.12 Socioeconomics, Environmental Justice, and Children’s Health and Safety Risks**

#### **4.12.1 Socioeconomics**

The Proposed Development Project is expected to provide positive economic activity in the surrounding community by creating new jobs, including 1,325 new full-time equivalent jobs. The average wages associated with these positions are required to be at least \$44,461 annually, excluding benefits. Typical jobs associated with the MRO operations include master airplane technicians, aircraft inspectors, master structures technicians, sheet metal mechanics, and avionics technicians.<sup>73</sup> These new employment opportunities would result in higher-paying jobs for existing residents and an increase in population for the surrounding areas. Given the urbanized setting of the Proposed Development Project site and surrounding areas, impacts associated with population growth and increased economic activity are not expected to be significant.

#### **4.12.2 Environmental Justice**

Given that the Census Block Group (**Figure 3-8, Appendix A**) did not contain a concentration of minority and/or low-income populations, the Proposed Development Project would not lead to a disproportionately high or adverse impact to these populations.

#### **4.12.3 Children’s Health and Safety Risks**

The Proposed Development Project is located entirely on Airport property. Operations would occur in a secured environment and include safety measures that prevent access by unsupervised children. These measures help minimize health and safety risks associated with MRO operations, including contact with hazardous substances. In addition, the MRO Operator will be responsible for following all applicable laws pertaining to the storage and handling of solid and hazardous waste. Implementing these procedures will help prevent hazardous materials from entering surrounding environments where children might have an increased risk of exposure. Given the secured environment of the Proposed Development Project and limited density of surrounding child-related facilities, impacts related to children’s health and safety risks are not considered significant.

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<sup>72</sup> Escambia County Code of Ordinances Sec. 42-65 (§ 42-65. Noises prohibited., Article III. NOISE, Chapter 42. ENVIRONMENT, Code of Ordinances, Escambia County (elaws.us))

<sup>73</sup> City of Pensacola. n.d. VT MAE MRO Hangar at PNS. Retrieved from <https://www.cityofpensacola.com/1131/VT-MAE>.

### 4.13 Visual Resources

The main changes to airfield lighting associated with the Proposed Development Project include installation of Medium Intensity Taxiway Lights (MITL) along a proposed connector taxiway. These ground-level lights would not be directed at light-sensitive areas. In addition, lighting systems for the MRO facility would be installed. These systems would include:

- Pole- and building-mounted area lights to illuminate building exteriors, portions of aircraft parking aprons, access roads, parking lots, and other related outdoor improvements
- Edge lighting along entrances to aircraft parking aprons; lighted airfield directional signs also may be installed to provide guidance to and from the MRO facility
- Temporary exterior lighting, which also may be installed at construction staging areas and project work sites

The Proposed Development Project is bordered by commercial land uses along Langley Avenue to the north and Tippin Avenue to the west and an aviation restricted zone to the east and south (**Figure 3-6, Appendix A**). Along Tippin Avenue, there are several commercial parcels and one isolated residential parcel that are next to the Proposed Development Project boundary. The main building of this residential property is approximately 200 feet from the Proposed Development Project boundary and 375 feet from proposed hangar locations. Outside of this isolated residential parcel, the closest residential neighborhood is located approximately 730 feet from the Proposed Development Project boundary at the corner of Langley Avenue and Judkins Drive (northwest of the site).

The residence adjacent to the MRO facility (**Figure 3-6, Appendix A**) would experience visual resources and visual character impacts associated with a change in land use, lighting, and light sources, when compared to the No-Action Alternative. This may include the presence of parking lots, hangar buildings, removal of vegetation and trees, and installation of lighting. However, the use of high-intensity light sources, directional lights, or flashing lights is not expected. Overall, the land uses in close proximity to the Proposed Development Project are commercial or already in aviation use. These land uses are compatible with the Proposed Development Project's lighting and light sources. The potential to cause substantial annoyance is low due to the compatibility of nearby land uses and the absence of bright, directional lighting. The Proposed Development Project does not have the potential to create annoyance or interfere with normal activities for the closest residential neighborhood or affect the visual character of the surrounding commercial area due to light emissions.

The design of the Proposed Development Project includes consideration of lighting systems that would minimize impacts on nearby residences. For example, pole-mounted lights in parking lots will be installed with enclosures that direct light downward. Thresholds to determine the significance of lighting and visual impacts have not been established by the FAA due to the subjective nature of these impacts. However, indicators of the need for further study may include cases with substantial light annoyance, substantial interference with activities or wildlife, and/or substantial public concern regarding views. In this case, it has been determined that the Proposed Development Project, with minimization measures and visual buffers, would not have substantial lighting or visual impacts.

Therefore, the Proposed Development Project would not result in a significant impact or need for further study.

## 4.14 Water Resources

### 4.14.1 Surface Waters

The Proposed Development Project will require a National Pollutant Discharge Elimination System (NPDES) Generic Permit for stormwater discharge since construction will disturb more than one acre. A Notice of Intent (NOI) to use the Construction Generic Permit will be submitted before any construction begins.

### 4.14.2 Groundwater

The Proposed Development Project site is not located within the geographic boundary of an EPA-defined sole source aquifer.<sup>74</sup> The Florida Wellhead Protection Rule (FL Rule Chapter 62-521) establishes restrictions for new installations and activities located within a 500-foot circular radius for any public water system. The City of Pensacola's Land Development Code (Section 12-2-26) identifies wellhead protection areas as those located within a 200-foot radius of a public water supply well. The Proposed Development Project site is located outside of these areas, with the nearest public water supply well located approximately 1,140 feet east of the site boundary.

### 4.14.3 Mitigation Measures

#### 4.14.3.1 Prevention and Reduction of Construction Water Quality Impacts

The construction phase of the Proposed Development Project is expected to include the following activities: site preparation, excavation and fill, and drainage system installation and modification. These construction activities can lead to soil erosion and increased sedimentation, nutrient loading, and the possible release of equipment-related fuels and fluids into local water bodies. Best Management Practices (BMPs) will be used to prevent and reduce water quality impacts from construction-related activities. The Stormwater Pollution Prevention Plan (SWPPP) required in the NPDES Generic Permit process, as well as the *Florida Stormwater Best Management Practice Selection and Implementation Manual*<sup>75</sup> will be used to select and implement construction related BMPs aimed at controlling erosion and minimizing pollutants from entering waterways. These construction site BMPs can include:

1. Installing and maintaining a temporary gravel entrance to minimize the amount of sediment that is transported onto roadways and into stormwater systems.
2. Using structural controls such as silt fencing and hay bales to intercept sediments from disturbed sites and decrease runoff flow velocity.

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<sup>74</sup> United States Environmental Protection Agency. 2019. Map of Sole Source Aquifer Locations. Retrieved from <https://www.epa.gov/dwssa/map-sole-source-aquifer-locations>.

<sup>75</sup> Florida Department of Environmental Protection. 2003. Stormwater Best Management Practice (BMP) Selection and Implementation. Tallahassee, FL.

3. Seeding, sodding, and mulching areas that will not be at final grade for 30 or more days to stabilize soils and establish ground cover.
4. Implementing pollution prevention and waste management plans to address the storage, handling, and disposal of fuels, lubricants, and other materials used during construction.

In addition, land development and construction guidance provided in FAA AC 150/5370-10H, *Standard Specifications for Construction of Airports*, can be incorporated into the project plans and specifications to reduce the potential for erosion and minimize construction-related impacts.<sup>76</sup>

#### 4.14.3.2 Proper Stormwater Treatment and Discharge

Stormwater runoff from the Proposed Development Project site would be mitigated and treated in accordance with state and local requirements. The stormwater runoff could be managed on-site and/or routed to the Airport's Regional Stormwater Management Facility located in the southeast section of the Airport property. The Regional Stormwater Management Facility<sup>77</sup> has adequate capacity to handle additional stormwater treatment from the Proposed Development Project site.

The City of Pensacola and/or the MRO operator will be required to obtain an NPDES permit to discharge stormwater from areas that service and maintain aircraft, vehicles, and equipment. A modification to the current Airport SWPPP, or development of a site-specific SWPPP, would address changes to stormwater discharge and institute BMPs aimed at protecting water quality.

#### 4.14.3.3 Procedural Practices for Prevention and Reduction of Water Quality Impacts

Procedural BMPs aimed at reducing and preventing pollutants from entering stormwater systems can be used by the MRO operator. The *Florida Airports Stormwater Best Management Practices Manual* can serve as a tool for establishing the best procedural BMPs. These practices can include periodically cleaning and disposing of accumulated solids from sediment traps and using a vacuum sweeper on aprons/ramps to collect particulate matter and heavy metals. The proper training and education of staff along with compliance monitoring and record keeping can ensure that these BMPs are properly implemented.

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<sup>76</sup> Federal Aviation Administration. 2018. Standard Specifications for Construction of Airports. Retrieved from [https://www.faa.gov/airports/resources/advisory\\_circulars/index.cfm/go/document.current/documentnumber/150\\_5370-10](https://www.faa.gov/airports/resources/advisory_circulars/index.cfm/go/document.current/documentnumber/150_5370-10).

<sup>77</sup> Regional Stormwater Facility Expansion Project (Permit # 17-0230740-003-EI)

## Chapter 5 CUMULATIVE IMPACTS

### 5.1 Introduction

Cumulative impacts result from the incremental impacts of the Proposed Development Project when added to other past, present, and reasonably foreseeable future actions, regardless of whether these actions are taken by a federal, state, or local agency or a private entity. Cumulative impacts can be the product of individual actions, which may be minor, but which can collectively, over a period of time, result in a significant impact (40 CFR § 1508.7).

The following environmental impacts, as previously discussed in the Affected Environment and Environmental Consequences chapters, have no significant direct or indirect impacts and subsequently would not produce a cumulative impact:

- Air quality
- Climate
- Coastal resources
- Department of Transportation Act Section 4(f) resources
- Farmlands
- Hazardous materials, solid waste, and pollution prevention
- Historical, architectural, archaeological, and cultural resources
- Land use
- Natural resources and energy supply
- Noise and noise-compatible land use
- Socioeconomics, environmental justice, and children's environmental health and safety risks
- Visual effects, including light emissions
- Water resources
- Floodplains
- Surface waters and ground waters
- Wild and scenic rivers

Although no significant impacts were identified from this Proposed Development Project, a potential for cumulative impacts was evaluated further for Biological Resources given that there would be a permanent conversion of habitat, including areas used by gopher tortoises.

## 5.2 Methodology

The following documents and data sources were reviewed to assess for any resource impacts from past, present, and reasonably foreseeable future actions at or near the Airport:

- *Pensacola International Airport Master Plan Update (December 2018)*<sup>78</sup>
- Pensacola International Airport Project Priorities<sup>79</sup>
- *Environmental Assessment, Proposed MRO Facility, Pensacola International Airport*<sup>80</sup>
- City of Pensacola Capital Improvement Projects<sup>81</sup>

A list of past, present, and reasonably foreseeable future actions compiled from these resources is discussed below.

### 5.2.1 Past Actions

- Aircraft Maintenance, Repair, and Overhaul (MRO) Facility (Project Titan Phase I-Hangar One) [Construction started on October 28, 2016 with a grand opening on June 8, 2018]

### 5.2.2 Present Actions

- Aircraft Maintenance, Repair, and Overhaul (MRO) Facility (Project Titan Phase I-Hangar Two) (Section 1.4)

### 5.2.3 Future Actions

Foreseeable future projects planned at or within the vicinity of the Airport within the next five years include:

- Taxiway A1 connector rehabilitation [Construction anticipated to start in 2022]
- Construction of Remain Overnight ramp on north side of terminal [Construction anticipated to start in 2022]
- Upgrades to Taxiway C South to accommodate Aircraft Design Group IV [Construction anticipated to start in 2024]
- Upgrades to Taxiway D to accommodate Aircraft Design Group III [Construction anticipated to start in 2024]

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<sup>78</sup> Pensacola International Airport. 2018. Master Plan Update. Retrieved from <http://www.pnsmasterplan.com/downloads/>.

<sup>79</sup> Personal communication, Andrea L. Levitt, AAE (August 4, 2020).

<sup>80</sup> Federal Aviation Administration Orlando Airports District Office. 2015. *Environmental Assessment- Proposed MRO Facility Pensacola International Airport*.

<sup>81</sup> City of Pensacola. n.d. Capital Improvement Projects- CIP Dashboard. Retrieved from <https://www.cityofpensacola.com/1119/Capital-Improvement-Projects>.

- Airport Economy Lot #3 Project (installation of additional parking stalls in front of Hyatt Hotel) [Construction anticipated to start in early 2022]
- 9th Avenue Remote Lot Project (installation of additional parking stalls along 9th Avenue on Airport property) [Project is currently on-hold with no listed start date]

## 5.3 Environmental Consequences

### Biological Resources

Some of the past, present, and reasonably foreseeable projects identified above have impacted, or have the potential to impact, local habitat communities. In most of these cases, construction impacts have been limited to areas that were previously disturbed and anthropogenic impacts include former residential/commercial sites and locations currently used for Airport operations. In addition, there is no critical habitat for any federally listed species located within or next to the Airport property.<sup>82</sup> Given the disturbed urbanized setting, the effects determinations in **Section 4.3.3**, and the absence of critical habitat, the cumulative impacts on habitat communities and federally listed species is not expected to exceed the significant impact threshold.

The state-protected gopher tortoise was observed in some of these habitat communities, including the observance of active gopher tortoise burrows during field surveys for both the Phase I MRO project<sup>83</sup> and the current Proposed Development Project. The presence of gopher tortoises at these locations results in a potential for cumulative impacts to this species. These impacts would be minimized by obtaining and complying with a gopher tortoise conservation permit. This permit would require the capture and relocation of any gopher tortoise from burrows found within 25 feet of any vegetation clearing or construction-related activities. Provided that procedures under the gopher tortoise conservation permit are implemented, the cumulative impacts to this species are not expected to exceed the significant impact threshold.

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<sup>82</sup> U.S. Fish and Wildlife Service. 2021. USFWS Threatened & Endangered Species Active Critical Habitat Report. Retrieved from <https://ecos.fws.gov/ecp/report/table/critical-habitat.html>.

<sup>83</sup> Federal Aviation Administration Orlando Airports District Office. 2015. Environmental Assessment- Proposed MRO Facility Pensacola International Airport.

## Chapter 6 LIST OF PREPARERS

FAA Order 5050.4B requires that the names and qualifications of the main contributors to this EA are identified. Specialists in the fields of airport planning; air quality; biology; historic/archaeological resources; water resources; transportation; and noise contributed to this EA.

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