



# Appendix A Environmental Overview



## Master Plan Update



**TALLAHASSEE**  
INTERNATIONAL AIRPORT



## A.0 Environmental Overview

The purpose of this chapter is to provide a review of existing environmental conditions and a preliminary assessment of potential environmental impacts of planned development at Tallahassee International Airport (TLH). The following information was assembled using available resource materials and databases. This overview does not constitute an Environmental Assessment (EA), as defined by the Federal Aviation Administration (FAA) Order 5050.4B. The analysis in this chapter is conducted according to the guidelines set forth in FAA Order 5050.4B, entitled National Environmental Policy Act (NEPA) Implementing Instructions for Airport Actions. The Implementing Instructions in addition to FAA Order 1050.1F, Environmental Impacts: Policies and Procedures discuss 14 categories of potential areas of impact that must be addressed in compliance with NEPA. These categories are:

1. Air quality
2. Biological resources (including fish, wildlife, and plants)
3. Climate
4. Coastal resources
5. Department of Transportation Act, Section 4(f)
6. Farmlands
7. Hazardous materials, solid waste, and pollution prevention
8. Historical, architectural, archaeological, and cultural resources
9. Land use
10. Natural resources and energy supply
11. Noise and compatible land use
12. Socioeconomics, environmental justice and children's environmental health and safety risks
13. Visual effects (including light emissions)
14. Water resources (including wetlands, floodplains, surface waters, groundwater, and wild and scenic rivers)

For the purpose of this overview, these environmental categories will only be addressed if they apply specifically to the airport. This environmental overview identifies potential environmental impacts that may require a more detailed analysis in a formal EA for the preferred development alternative. The proposed projects discussed in this Master Plan Update (MPU) are not anticipated to have impacts on the following categories and therefore were not addressed in this overview:

- Air quality;
- Climate;
- Department of Transportation Act, Section 4 (f);
- Farmlands;
- Natural resources and energy supply;
- Noise and compatible land use;

- Socioeconomics, environmental justice and children’s environmental health and safety risks; and
- Visual effects (including light emissions).

## A.1 Biological Resources

### *Legislation*

There are many state and federal regulations, statutes, executive orders, and other guidance that pertain to biological resources. Including the following:

### *Federal Regulations*

- Bald and Golden Eagle Protection Act;
- CEQ Biodiversity Considerations Policy Act 1993;
- Endangered Species Act;
- Executive Order 13186, Responsibilities of Fed Agencies to Protect Migratory Birds;
- Executive Order 13112, Invasive Species;
- Fish and Wildlife Coordination Act; and
- Migratory Bird Treaty Act.

### *State Regulations*

- Florida Statutes 379.2291, Endangered and Threatened Species Act

### *Regulatory Agency*

The USFWS (and, in the case of marine and estuarine species, the National Marine Fisheries Service), the Florida Department of Agriculture and Consumer Services (FDACS), and Florida Fish and Wildlife Conservation Commission (FFWCC) have jurisdiction over and administer native endangered and threatened species permits for Florida. During the consultation process, the USFWS will determine the significance of potential impacts to federally protected species and will recommend methods to avoid or mitigate for impacts that may occur as a result of the proposed projects.

The FFWCC Threatened and Endangered Species Section reviews and issues permits that involve Florida’s protected terrestrial animal species. The FFWCC Bureau of Protected Species Management reviews and issues permits that involve Florida’s protected aquatic wildlife species. The FDACS Division of Plant Industry is responsible for providing protection to Florida’s protected native plant species that are classified as endangered, threatened, or commercially exploited. The City of Tallahassee requires a Natural Features Inventory, Environmental Impact Analysis, and Environmental Permit for all development projects within the City limits.

**Existing Conditions**

Available GIS data and literature were reviewed to determine the types of plant communities and wildlife occurrences that have been previously documented within the airport property area. Data sources used in this evaluation included:

- FFWCC’s 2014 Eagle Nesting Territory Locations and Activity Status;
- FFWCC’s Wading Bird Colony Locations (1999);
- FFWCC’s Wood Stork Colony Locations (2013); and
- FNAI (Florida Natural Areas Inventory) Matrix of Habitat and Distribution of Rare/Endangered Species for Leon County (2016).

Lists of protected fauna and flora potentially occurring in Leon County, and their protection status, are provided in **Tables A-1** and **A-2**. Protected species that may be expected to occur within the proposed project development areas are those that are typically associated with pasturelands, turkey oak hammocks, pine flatwoods, and cypress wetlands.

<b>Table A-1 List of Potentially Occurring Fauna</b>			
Scientific Name	Common Name	Status	
		USFWS	FFWCC
<b>Herpetofauna</b>			
<i>Rana capito aesopus</i>	Gopher Frog	-	SSC
<i>Drymarchon corais couperi</i>	Eastern Indigo Snake	T	ST
<i>Gopherus polyphemus</i>	Gopher Tortoise	C	ST
<i>Notophthalmus perstriatus</i>	Striped Newt	C	SSC
<i>Pituophis melanoleucus mugitus</i>	Florida Pine Snake	-	SSC
<b>Avifauna</b>			
<i>Egretta caerulea</i>	Little Blue Heron	-	SSC
<i>Aramus quarauna</i>	Limpkin	-	SSC
<i>Egretta thula</i>	Snowy Egret	-	SSC
<i>Eudocimus albus</i>	White Ibis	-	SSC
<i>Egretta tricolor</i>	Tricolored Heron	-	SSC
<i>Falco sparverius paulus</i>	Southeastern American Kestrel	-	ST
<i>Picoides borealis</i>	Red-cockaded Woodpecker	E	SE
<i>Mycteria americana</i>	Wood Stork	T	ST
<b>Mammals</b>			
<i>Myotis grisescens</i>	Gray Bat	E	SE
Source: Florida Natural Areas Inventory Tracking List for Leon County, FNAI. April 2016. E = Federally listed as Endangered T = Federally listed as Threatened SSC = Species of Special Concern ST = State population listed as Threatened by the FFWCC SE = State population listed as Endangered by the FWCC USFWS = United States Fish and Wildlife Service FFWCC = Florida Fish and Wildlife Conservation Commission			

Available wading bird colony location data (FFWCC 1999) and wood stork colony location data (USFWS 2016) was reviewed. Based on this data, there are no colonies located close enough to TLH that they would be directly affected by construction at TLH, because the nearest colony is over

6 miles north of the airport. However, TLH is located with the core foraging areas of the three nearest wood stork colonies. The core foraging area for wood storks in north Florida extends 13 miles from the colony. Therefore, impacts to wetlands or other waterbodies (including ditches in some cases) that are within 13 miles of a colony may be considered to be impacts to wood stork core foraging habitat. Such impacts may require mitigation.

The “FNAI Species and Natural Community Occurrence Summary for Leon County” lists 27 plant species, 3 fish, 6 amphibian, 7 reptiles, 22 birds, and 7 mammals. FNAI element occurrence data for protected species locations in the vicinity of TLH are depicted in **Figure A-1**. The upland habitats within the airport have the potential to be utilized by four species of herpetofauna, 8 birds, 2 mammals, and 20 plants (**Tables A-1** and **A-2**).

<b>Table A-2 List of Potentially Occurring Flora</b>			
Scientific Name	Common Name	Status	
		USFWS	FDACS
<i>Aster georgianus</i>	Georgie Aster	C	-
<i>Calycanthus floridus</i>	Sweet-shrub	-	SE
<i>Erythronium umbilicatum</i>	Trout Lily	-	SE
<i>Hexastylis arifolia</i>	Heartleaf	-	ST
<i>Lilium superbum</i>	Turk’s Cap Lily	-	SE
<i>Magnolia ashei</i>	Ashe’s Magnolia	-	SE
<i>Magnolia pyramidata</i>	Pyramid Magnolia	-	SE
<i>Malaxis unifolia</i>	Green Adder’s-mouth	-	SE
<i>Pityopsis flexuosa</i>	Bent Golden Aster	-	SE
<i>Polygonum meisnerianum var. beyrichianum</i>	Mexican Tear-thumb	-	SE
<i>Pycnanthemum floridanum</i>	Florida Mountain-mint	-	ST
<i>Rhexia salicifolia</i>	Panhandle Meadowbeauty	-	ST
<i>Rhododendron alabamense</i>	Alabama Rhododendron	-	SE
<i>Rhododendron austrinum</i>	Florida Flame Azalea	-	SE
<i>Schwalbea americana</i>	American Chaffseed	E	SE
<i>Stachydeoma graveolens</i>	Mock Pennyroyal	-	SE
<i>Uvularia floridana</i>	Florida Merrybells	-	SE
<i>Xyris longisejala</i>	Karst Pond Xyris	-	SE

Source: Florida Natural Areas Inventory Tracking List for Leon County, FNAI. April 2016.  
E = Endangered  
T = Threatened  
ST = State population listed as Threatened by the FFWCC  
SE = State population listed as Endangered by the FWCC  
C = Candidate Species for which federal listing agencies have data to support proposing to list the species as Endangered or Threatened  
USFWS = United States Fish and Wildlife Service  
FDACS = Florida Department of Agriculture and Consumer Services

In Florida, land use and vegetative cover are frequently described using the Florida Land Use, Cover, and Forms Classification System (FLUCFCS) that was developed by the Florida Department of Transportation (FDOT) and is widely accepted and used by various state and local agencies.<sup>1</sup> The following descriptions of upland community types in and around the Airport Region of Interest (ROI) are based on review of the 2013 North West Florida Water Management District (NFWFMD) FLUCFCS mapping (**Figure A-2**). The upland community types within the construction ROI at the airport are listed in **Table A-3** and described below.

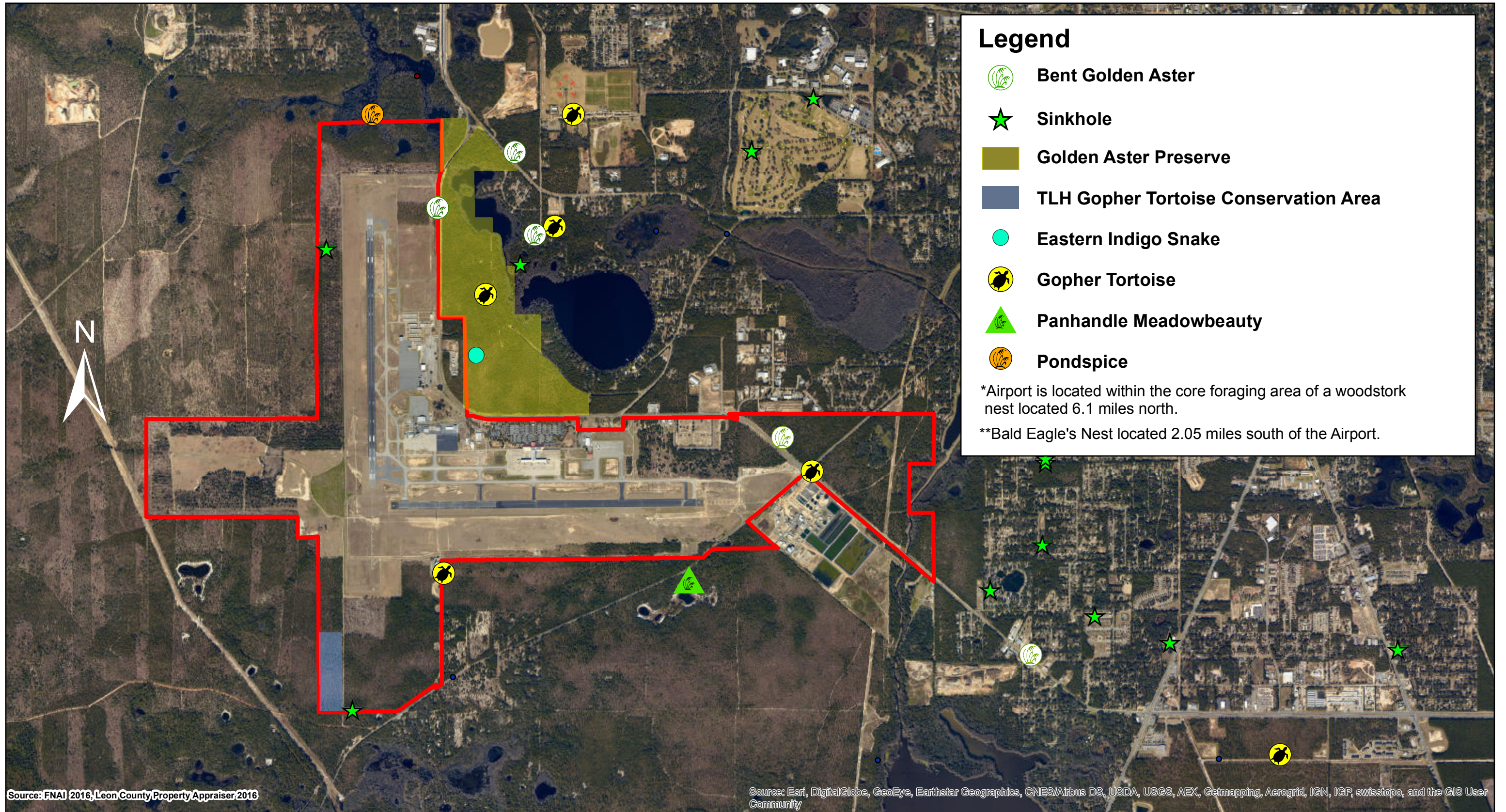
<b>Table A-3 Upland Habitats within the Airport ROI</b>		
<b>FLUCS Code</b>	<b>Land Cover Description</b>	<b>Area (Acres)</b>
4100	Upland Coniferous Forests	526
4110	Pine Flatwoods	528
4120	Longleaf Pine – Xeric Oak	288
4340	Hardwood Coniferous - Mixed	364
4410	Coniferous Plantations	1,436
8110	Airports	472
Sources: NFWFMD 2013, Michael Baker International 2016. *Acreage is in thousands		

### ***Recommendations***

Additional protected species have the potential to occur at the airport but have not been observed and documented. It is recommended that a protected species survey be completed during the Categorical Exclusion, EA or EIS phase of each project to:

- Update existing protected species data;
- Determine the presence and location of protected species in sections of the project area that were not previously surveyed;
- Determine the habitat suitability of the area that would be impacted; and
- Determine the type of mitigation necessary to complete the project.

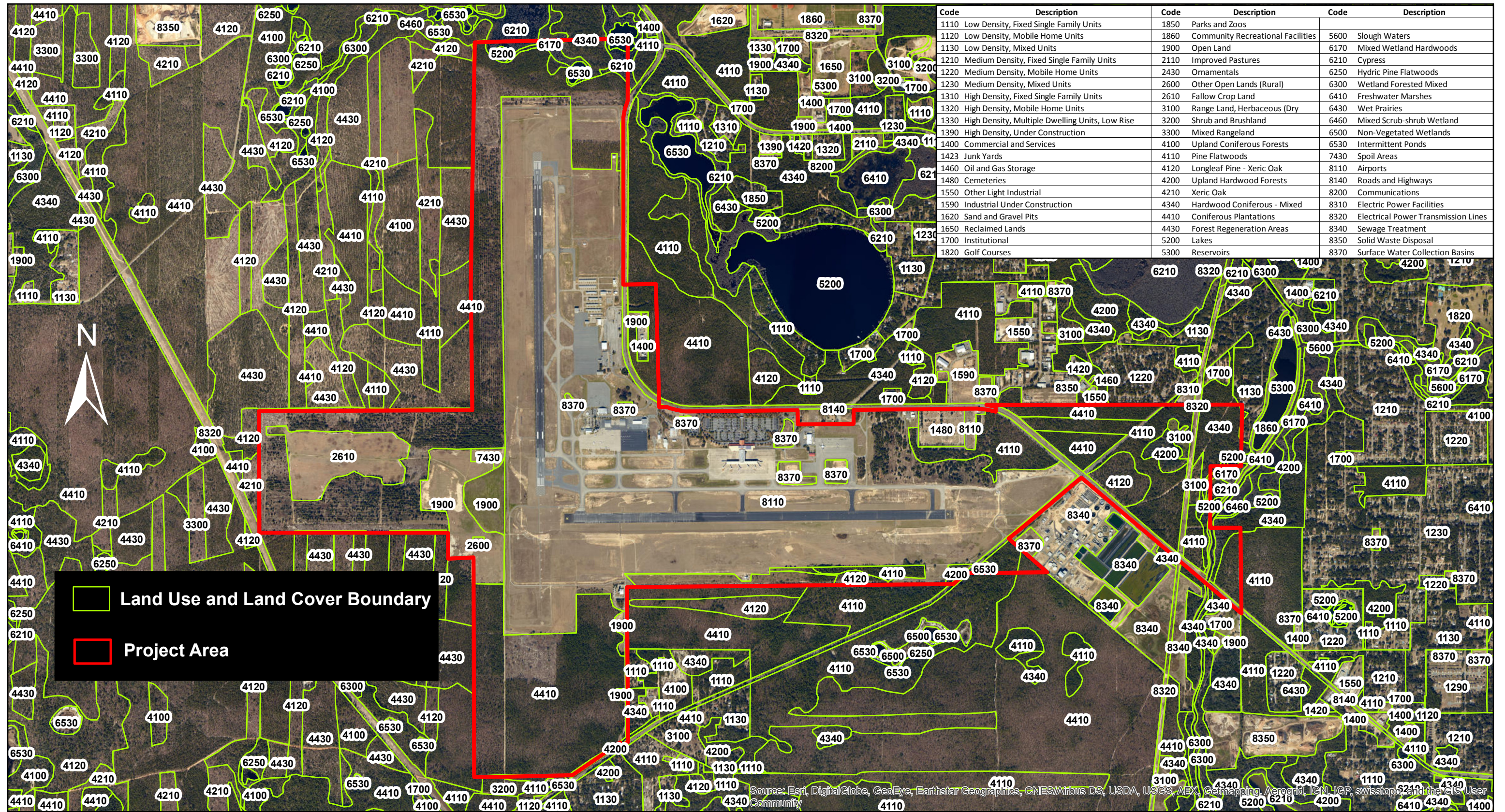
<sup>1</sup> FDOT, *Florida Land Use, Cover and Forms Classification System*, January 1999.



Source: FNAI 2016; Leon County Property Appraiser, 2016

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

Figure A-1 Protected Species and Karst Location Map





## **A.2 Coastal Resources**

### **A.2.1 Legislation**

The United States Department of Commerce, National Oceanic and Atmospheric Administration (NOAA) administered the Coastal Zone Management Act (CZMA, 16 U.S.C. §§1451-1466). NOAA is the approving body of a state developed coastal zone management plan, CZMA provisions allow for the transfer of coastal zone management authority to the state. In 1981 NOAA approved the Florida Coastal Management Program (FCMP), and the FDEP became the lead agency for implementation of the FCMP through its Office of Intergovernmental Programs (OIP).

### **A.2.2 Regulatory Agencies**

A requirement of the CZMA is federal consistency review. Any federal agency activity that affects coastal resources is required to be reviewed for consistency with respect to the requirements of the CZMA. Federal agency activities can include federal assistance (insurance, grants, loans, subsidies, etc.) to state or local governments, federal licensing, or federal permitting actions. The review process is coordinated by the Florida State Clearinghouse which is a part of OIP. Comments concerning consistency are received from nine state agencies, the five water management districts, as well as local governmental entities.

### **A.2.3 Existing Conditions**

The airport is located within Florida's regulated coastal zone.<sup>2</sup> Federal actions at TLH are subject to review with respect to consistency with the FCMP.

## **A.3 Hazardous Material, Solid Waste, and Pollution Prevention**

### **A.3.1 Legislation**

The Resource Conservation and Recovery Act of 1976 (RCRA) Subtitle C established the federal program to manage hazardous wastes from cradle to grave. Subtitle C contains guidance for hazardous waste handling entities regarding generation, transportation, and treatment, storage or disposal of hazardous waste.

### **A.3.2 Regulatory Agencies**

The Environmental Protection Agency (EPA) provides state and local agencies with information, guidance, policy and regulations to help regulate community waste and to enhance the environmental and economic benefits of source reduction and recycling of solid wastes. Notification of EPA is necessary if treatment, storage or disposing of hazardous waste is being conducted at a given facility in order to receive an EPA Identification Number unless hazardous waste generated at the facility has been exempt.

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<sup>2</sup> NOAA, "Coastal Zone Management Programs," <https://coast.noaa.gov/czm/mystate/> (February 4, 2016)

### A.3.3 Existing Conditions

Review of the USEPA NEPAAssist<sup>3</sup> utility, the Resource Conservation and Recovery Act Information (RCRAInfo) list of active and Conditionally Exempt Small Quantity Generators (CESQGs)<sup>4</sup>, and the FDEP Contamination Locator map was used to determine if the airport was located in an area classified as a brownfield, superfund, petroleum or other hazardous waste site.<sup>5</sup> The airport in addition to four industrial use tenants are listed on the RCRAInfo database as a conditionally exempt small quantity generator (CESQG). In addition, there is a closed landfill located in the northeastern portion of the airport property.

### A.3.4 Potential Impacts

The projects described in this Master Plan Update are not anticipated to generate hazardous waste. Proposed projects are anticipated to result in typical construction debris that would be transported to the nearest operational landfill, which is located 5.5 miles northwest of the airport.

### A.3.5 Recommendations

Potential hazardous material sites must be re-evaluated during the preparation of the NEPA document of each project to ensure consistency with RCRA regulatory requirements. A Phase One Environmental Site Assessment should be performed for each project, especially in areas where there is a potential for hazardous waste sites to be discovered and/or where construction is proposed.

## A.4 Historical, Architectural, Archaeological, and Cultural Resources

### A.4.1 Legislation

The National Historic Preservation Act of 1966 and the Archaeological and Historic Preservation Act of 1974 provide protection against development impacts that would impact the historical, architectural, archaeological, or cultural resources.

### A.4.2 Regulatory Agencies

The Department of State, Division of Historical Resources is responsible for preserving the historical, archaeological, museum, and folk culture resources in Florida.

### A.4.3 Existing Conditions

The National Park Service's National Register Information System database contains records of documented historic and archaeological resources listed on the National Register of Historic Places (NRHP). A review of the NRHP database and a Phase I Cultural Resources Assessment

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<sup>3</sup> USEPA, NEPAAssist,

<http://nepassisttool.epa.gov/nepassist/nepamap.aspx?wherestr=3300+Capital+Cir+SW%2C+Tallahassee%2C+FL+32310> (April 6, 2016).

<sup>4</sup> USEPA, Categories of Hazardous Waste Generators

<http://www.epa.gov/hwgenerators/categories-hazardous-waste-generators> (April 6, 2016).

<sup>5</sup> <http://webapps.dep.state.fl.us/DepClnup/welcome.do> (April 7, 2016)

Survey (CRAS) for the airport from a previous project<sup>[4]</sup> indicated that there are no NRHP listed cultural, historical, or archaeological resources within the airport property. The CRAS report identified the Springhill Railroad Tramline, which has previously been recommended by the State Historic Preservation Office (SHPO), as eligible for listing on the NRHP. This railroad corridor lies parallel to, and just outside of, a segment of the southernmost portion of the airport's property and crosses the eastern end of the airport's property. However, previous surveyors have reported that the portions of the tramline corridor that run adjacent to lack historic integrity due to past disturbance and alteration and are no longer contributing to the eligibility of the resource as a whole. After reviewing aerial photography, the portion of the corridor that passes through the eastern end of the airport's property appears to no longer hold historical contribution to the resource due to mowing and maintenance of the airfield. Projects completed prior to the development of this Master Plan Update were determined to have no impact to archaeological or historical resources. Undocumented resources may be present in project areas that have not been subjected to previous disturbance.

#### **A.4.4 Potential Impacts**

Proposed projects that are located in previously undisturbed areas have the potential to impact cultural resources.

#### **A.4.5 Recommendations**

A Phase One Cultural Resources Assessment Survey should be performed for each project, especially in areas where there is a potential for archaeological artifacts to be discovered and/or where excavation is proposed.

### **A.5 Water Resources**

#### **A.5.1 Surface Waters and Groundwater**

##### *Legislation*

The Federal Water Pollution Control Act, as amended by the Clean Water Act provides the authority to establish water control standards, control discharges into surface and subsurface waters, develop waste treatment management plans and practices, and issue permits for discharges and for dredged and filled materials into surface waters. The Fish and Wildlife Coordination Act requires consultation with the United States Fish and Wildlife Service (USFWS) and the Florida Fish and Wildlife Conservation Commission (FFWCC) when any alteration and/or impounding of water resources is expected. Section 402 of the Clean Water Act created the Federal National Pollution Discharge Elimination System (NPDES) permitting program and provided regulations that govern the quality of stormwater discharges into water resources of the United States.

City of Tallahassee Ordinance 04-O-73AA (Land Development Ordinance) subjects all property within the corporate limits of the City to the provisions of Chapter 5, Environmental Management,

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<sup>[4]</sup> SEARCH, *Phase 1 Cultural Resources Survey for Tallahassee International Airport*, March 2016

which are enforced by the City's Growth Management Department and include natural resources and stormwater features.

### ***Regulatory Agencies***

The United States Army Corps of Engineers (COE), the Florida Department of Environmental Protection (FDEP), and the Water Management Districts (WMDs) have jurisdiction over and regulate activities that alter, or disrupt water flow to, wetland areas and surface waters through the Environmental Resource Permitting (ERP) Program in Florida. The program authorizes the WMD to receive ERP applications and forward permit application copies to other state and federal agencies including FFWCC and USFWS. In Leon County, where the airport is located, the Northwest Florida Water Management District administers the ERP program. Permitting requirements for construction projects that disturb more than one acre are specified by NPDES and administered by the FDEP. Therefore, proposed improvement projects at the airport may require an NPDES permit, a state ERP, and City of Tallahassee permit prior to construction when jurisdictional wetlands and surface waters will be impacted or when more than one acre of ground disturbance will occur. Under the NPDES permit, stormwater runoff has to be treated prior to discharge to any waterbody.

### ***Existing Conditions***

The airport has an NPDES Multi-Sector General Permit Multi-Sector Generic Permit, a Stormwater Pollution Prevention Plan, and stormwater management system that consists of a stormwater conveyance system that drains to several dry retention ponds.

### ***Potential Impacts***

The projects proposed in this Master Plan Update would most likely result in an increase in impervious surface at the airport and therefore would result in less infiltration of precipitation and increased stormwater runoff. These impacts would require mitigation through construction of existing stormwater treatment facilities or modification of existing stormwater treatment facilities. Short-term water quality impacts may also occur as a result of construction activities associated with the proposed projects.

### ***Recommendations***

It is recommended that coordination with the City of Tallahassee, FDEP, and NFWFMD be completed during the environmental review phases of each project for the development of the airport to determine the potential to reduce or minimize water quality, water quantity and environmental impacts.

## **A.5.2 Wetlands**

### ***Legislation***

Executive Order 11990, Protection of Wetlands, mandates that each federal agency take action to minimize the destruction, loss, or degradation of wetlands, and preserve and enhance their

natural values. This Executive Order and the permitting requirement of the Clean Water Act Section 404 requires a permit for impacts to Waters of the United States.

The City of Tallahassee Land Development Ordinance provides the Tallahassee Growth Management Department with the authority to regulate activities within City jurisdictional wetlands.

### ***Regulatory Agencies***

The COE, FDEP, and NFWMD have jurisdiction over and regulate activities that impact and disrupt water flow to wetland areas and surface waters through the ERP Program in Northwest Florida. Therefore, proposed airport improvement projects that would impact jurisdictional wetlands or surface waters would require a Section 404 permit and a state ERP prior to construction.

As part of the permitting process, compensatory mitigation for unavoidable wetland impacts would be required. At a minimum, mitigation must meet the requirements of the COE and FDEP. However, the City of Tallahassee may determine that additional mitigation would be necessary in order to satisfy the requirements of the city's environmental permit.

### ***Existing Conditions***

Available GIS maps and literature were reviewed to determine the types of wetland systems that have been previously documented within the project study area. Data sources used in this evaluation included:

- USFWS National Wetlands Inventory (NWI) maps (2014);
- FLUCFCS maps (NFWMD 1999); and
- Project aerial photography.

The FLUCFCS map data indicates that there are wetlands within the project area. Three wetland types were identified using the above resources, they are classified according to FLUCFCS and listed below:

- Wetland Forested Mixed (6300);
- Mixed Scrub-shrub Wetland (6460); and
- Non-vegetated Wetlands (6500).

### ***Potential Impacts***

Early in the site selection and site layout phases of new projects at the airport, **Figure A-2**, the FLUCFCS Map, and other available wetland mapping should be reviewed to identify potential wetlands in the area of construction. In addition, any potential wetland areas within the site boundary should be surveyed and delineated for clarification.

### ***Recommendation***

It is recommended that the limits and quality of the wetlands be determined during the EA or EIS of each project to determine the necessary mitigation to meet regulatory requirements.

### **A.5.3 Floodplains**

#### ***Legislation***

Executive Order 11988, "Floodplain Management" defines floodplains as lowland areas adjoining inland and coastal waters, especially those areas subject to one percent or greater chance of flooding in any given year.

#### ***Regulatory Agencies***

The Federal Emergency Management Agency (FEMA) has produced Flood Insurance Rate Maps (FIRMs) for communities participating in the National Flood Insurance Program. These maps detail the 100-year and 500-year base flood elevations. The State of Florida administers and requires compensation for floodplain impacts through the Environmental Resource Permitting process in closed basins. The airport is within the jurisdiction of NFWFMD.

#### ***Existing Conditions***

A review of FIRM mapping indicates that majority of the airport is not within the FEMA designated 100- or 500-year floodplain. The wetland located on northern most portion of the airport, at the end of Runway 18 is within the 100-year floodplain (**Figure A-3**).

#### ***Potential Impacts***

Construction within the FEMA designated 100-year floodplain would require one for one flood storage compensation to avoid flooding on adjacent property.

#### ***Recommendations***

It is recommended that potential floodplain impacts be re-evaluated during the EA or EIS of each project to ensure consistency with FEMA regulatory requirements.

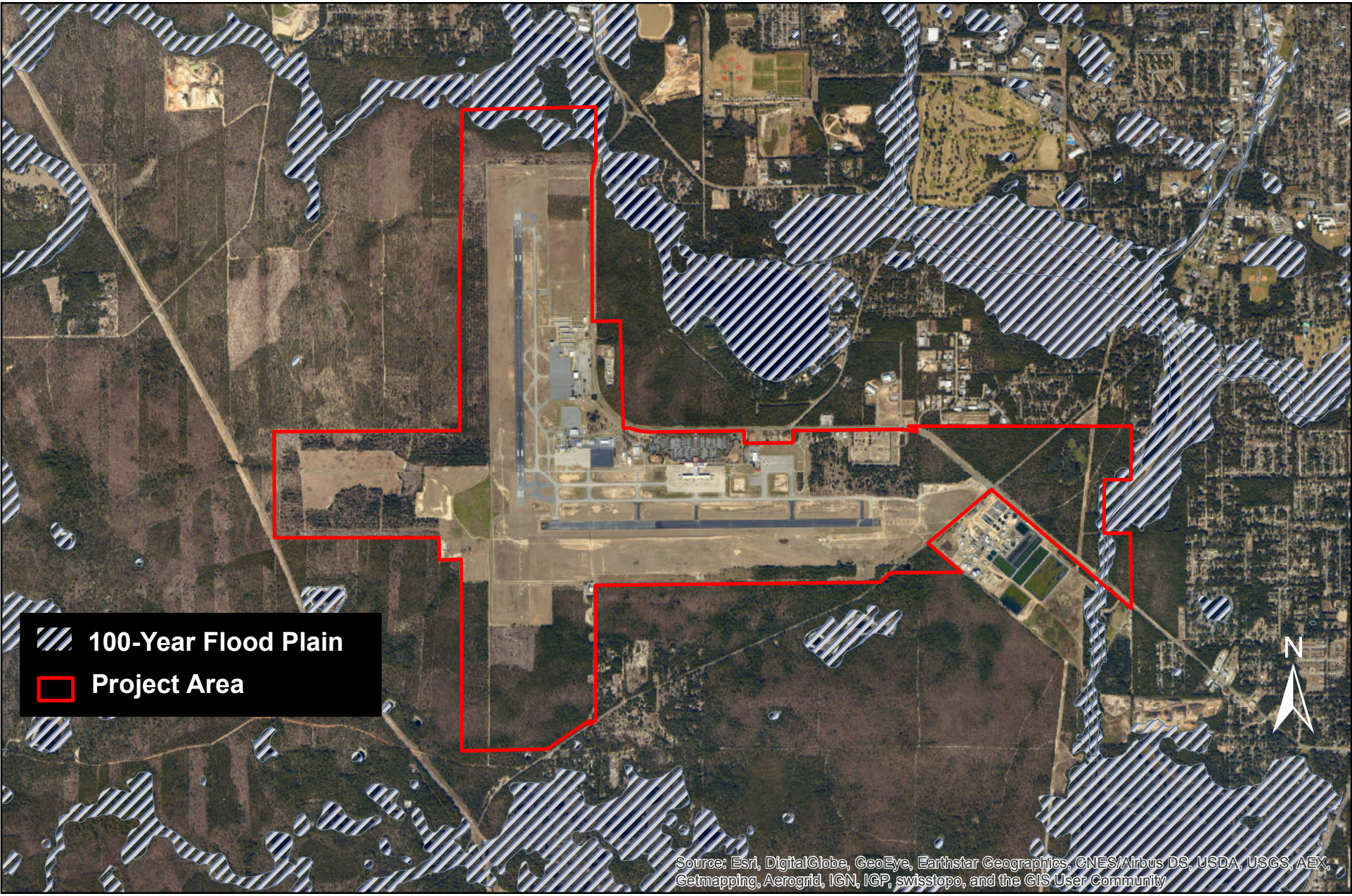


Figure A-3 FEMA 100-Year Floodplains