

# CHAPTER X

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## Environmental Overview

### X.1 Introduction

Guidance issued by the Federal Aviation Administration (FAA) encourages the review of environmental factors in airport master planning to “help the sponsor thoroughly evaluate airport development alternatives and to provide information that will help expedite subsequent environmental processing.”<sup>1</sup> The Florida Department of Transportation (FDOT) *2016 Guidebook for Airport Master Planning*, provides similar guidance. As a federally obligated airport, Lakeland Linder Regional Airport (LAL) is required to comply with the federal review process, regardless of the funding entity, if a federal action (funding, ALP approval, land release or acquisition, PFC approval, etc.) is required. Certain projects without a federal trigger that are 100 percent funded by FDOT (typically surface transportation projects) may receive approval through the FDOT Project Development and Environment (PD&E) process (state delegated DOT NEPA). However, both agencies clearly note that it is not the intent of a Master Plan to complete the federal and state environmental review processes. Instead, the information should identify and set the stage for understanding what future environmental review or actions may be needed and assist with the screening of potential alternatives.

In order to inventory the potential natural features and environmental constraints to future development at LAL, a review of publically available environmental data, prior environmental studies and permits, aerial photography, and other geographical information systems (GIS) data was conducted. The constraint categories that have the greatest potential to affect future development projects, or require further environmental documentation and clearances include:

- Federal and state listed wildlife species
- Jurisdictional wetlands, other surface waters, and Waters of the U.S.

As a result of the limited scope of environmental evaluation included in this Master Plan Update (MPU) study, some environmental constraint categories were not examined in great detail. While these categories may not require specific permits, future NEPA analyses would include discussion of these, as well as other required categories. For projects identified in this MPU, impacts are anticipated to be minimal, or insignificant, for the following environmental categories:

- Air quality
- Prime and unique farmland
- Section 4(f) properties and other environmentally sensitive public lands
- Historical, Archeological, and Cultural Resources

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<sup>1</sup> FAA Advisory Circular 150/5070-6B, *Airport Master Plans*. Change 2. January 27, 2015.

- Hazardous materials

## X.1.1 Federal Environmental Reviews

This chapter provides a desktop review of publically available and known environmental resources that should be considered during the identification and evaluation of development alternatives in this Master Plan Update. The environmental resources discussed in this chapter include many of the categories delineated in FAA Order 5050.4B, *National Environmental Policy Act (NEPA) Implementing Instructions for Airport Actions*; FAA Order 1050.1F, *Environmental Impacts: Policies and Procedures*; and the President’s Council on Environmental Quality (CEQ) Regulations Title 40 Code of Federal Regulations (CFR) § 1500-1508, *CEQ Regulations for Implementing the Procedural Provisions of NEPA*, however this overview is not intended to meet the NEPA requirements for any included project(s). This environmental overview does not constitute NEPA or regulatory level resource review; instead, it provides a compilation of readily available data to help screen alternatives and provide an environmental basis to identify where additional investigation or studies may be required. The FAA is responsible for ensuring compliance with NEPA with respect to actions at federally-obligated airports.

The processing of Airport Improvement Program (AIP) grant applications and Airport Layout Plan (ALP) approvals are two types of “federal actions” commonly undertaken by the FAA in support of airport development projects which require environmental review under NEPA. While NEPA requires varying levels of interagency coordination, development of environmental documents under NEPA does not exempt airport development projects from compliance with other federal environmental laws (e.g., *Endangered Species Act*) or state and local environmental regulations.

For those projects that involve a federal action and therefore trigger environmental review under NEPA, the three types of documentation that are be used are summarized in **Table X-1**. Categorical Exclusions (CatEx) and Environmental Assessments (EA) are usually prepared by the Airport Sponsor and, if the documentation meets FAA requirements, they are accepted by the FAA and become federal documents. Environmental Impact Statements (EIS) are prepared by the FAA. Any future development projects recommended as part of this Master Plan update would be subject to the appropriate level of environmental review at such time that a specific project is considered “ripe” for implementation.

**TABLE X-1**  
**TYPES OF FAA NEPA REVIEW DOCUMENTATION**

<b>CATEX</b> <b>Categorical</b> <b>Exclusion</b>	<p>The FAA has identified certain actions that may be categorically excluded from a more detailed environmental review. However, extraordinary circumstances, such as wetland impacts, may preclude Categorical Exclusion (CATEX). A CATEX requires a review of impacts and completion of forms provided by the FAA. In some cases, documentation and agency coordination may be necessary to address extraordinary circumstances (see FAA ARP SOP No. 5.00). CATEXs that may apply to future airport development projects at LAL are summarized below (emphasis added). See FAA Orders 1050.1F and 5050.4B for a more detailed description of these and other categorically excluded actions that may apply to development projects at LAL.</p> <ol style="list-style-type: none"> <li>1. Access and service road construction that does not reduce the level of service on local traffic systems below acceptable levels.</li> <li>2. Construction, repair, reconstruction, resurfacing, extending, strengthening, or widening of a taxiway, apron, loading ramp, or runway safety area; or the reconstruction, resurfacing, extension, strengthening, or widening of an existing runway – <i>provided the action would not result in significant erosion or sedimentation and will not result in a significant noise increase over noise sensitive areas or result in significant impacts on air quality.</i></li> <li>3. Construction or limited expansion of accessory on-site structures, including storage buildings, garages, hangars, T-hangars, small parking areas, signs, fences, and other essentially similar minor development items.</li> </ol>
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	<ol style="list-style-type: none"> <li>4. Construction or expansion of facilities – such as terminal passenger handling and parking facilities or cargo buildings, or facilities for non-aeronautical uses that <i>do not substantially expand those facilities</i>.</li> <li>5. Demolition and removal of FAA or non-FAA on-airport buildings and structures, <i>provided no hazardous substances or contaminated equipment are present on the site of the existing facility</i>. Does not apply to historic structures.</li> <li>6. Placing fill into previously excavated land with material compatible with the natural features of the site, <i>provided the land is not delineated as a wetland</i>; or minor dredging or filling of wetlands or navigable waters for any categorically excluded action, <i>provided the fill is of material compatible with the natural features of the site and the dredging and filling qualifies for an U.S. Army Corps of Engineers nationwide or a regional general permit</i>.</li> <li>7. Grading of land, removal of obstructions to air navigation, or erosion control measures, <i>provided those activities occur on and only affect airport property</i>.</li> <li>8. Topping or trimming trees to meet 14 CFR Part 77 standards for removing obstructions which can adversely affect navigable airspace.</li> </ol>
<b>EA Environmental Assessment</b>	<p>An Environmental Assessment (EA) is prepared for proposed actions with expected minor or uncertain environmental impact potential. An EA requires analysis and documentation similar to that of an EIS, but with somewhat less detail and coordination. The FAA will review the EA and decide to either issue a Finding of No Significant Impact (FONSI) or prepare an Environmental Impact Statement (EIS). Future airport development projects and actions at LAL that may require an EA are summarized below (emphasis added). See FAA Orders 1050.1F and 5050.4B for more information.</p> <ol style="list-style-type: none"> <li>1. Runway extensions due to possible wetland impacts, potential off-airport impacts related to aircraft noise, and potential impacts to affect listed species habitat.</li> <li>2. Taxiway construction due to possible wetland impacts and potential to affect listed species habitat.</li> <li>3. Aircraft parking apron; hangar and structures; and/or access road projects that may not qualify for a CATEX due to extraordinary circumstances (e.g., wetland impacts may not qualify for a nationwide or regional general permit).</li> <li>4. Approval of operations specifications or amendments that may significantly change the character of the operational environment of an airport.</li> <li>5. New air traffic control procedures (e.g., instrument approach procedures, departure procedures, en route procedures) and modifications to currently approved procedures that routinely route aircraft over noise sensitive areas at less than 3,000 feet above ground level.</li> </ol>
<b>EIS Environmental Impact Statement</b>	<p>An EIS is prepared for major federal actions, which are expected or known to significantly affect the quality of the human environment. At this time, no future airport development projects at LAL are expected to require the preparation of an EIS.</p>

Compiled by ESA, 2018.

The CEQ provides regulations for implementing the procedural provisions of NEPA, except where compliance would be inconsistent with other statutory requirements. These regulations are issued pursuant to NEPA; the Environmental Quality Improvement Act of 1970, as amended; Section 309 of the Clean Air Act, as amended; and Executive Order 11514, *Protection and Enhancement of Environmental Quality*.

## X.1.2 State Environmental Reviews

In addition to compliance with NEPA, all recommended airport development must be consistent with other federal regulatory guidance, Florida Statutes (FS), growth management and concurrency requirements as well as regional and state transportation plans. For projects that require NEPA compliance, state environmental reviews typically initiate with the Florida State Clearinghouse which is administered by the Florida Department of Environmental Protection (FDEP). A primary function of the Florida State Clearinghouse is to serve as the state's single point of contact for the receipt of federal activities that require interagency review, which includes activities subject to consistency review under the Florida Coastal Management Program. Upon completion of their review, the Clearinghouse will typically issue a letter summarizing any potential concerns or inconsistencies regarding the proposed activity. The clearance letter

will also include information on obtaining necessary state permits and will inform the applicant if there is a need to submit additional information to a specific state agency for review. In cases where NEPA compliance is not required, direct coordination with the relevant state and federal regulatory agencies may still be required. Information related to the specific agencies and coordination and / or permits required, is discussed in the individual resources categories in this chapter.

### X.1.3 Environmental Categories Considered During this Review

The following provides a list of the environmental categories considered during this review. Additional discussion for each category is provided in the respective sections that follow.

- Air Quality
- Prime and Unique Farmlands
- Biotic Communities / Vegetation
- Wildlife and Endangered Species
- Wetlands and Water Resources (including Floodplains)
- Section 4(f) and Other Environmentally Sensitive Public Lands
- Historical, Archeological, and Cultural Resources
- Energy Supply and Natural Resources
- Hazardous Materials and Waste Management
- Coastal Zone Management
- Construction Impacts

Noise and land use compatibility is addressed as a separate section (Section XX) within the master plan report.

## X.2 Air Quality

The federal *Clean Air Act*, as amended, required the U.S. Environmental Protection Agency (EPA) to establish National Ambient Air Quality Standards (NAAQS) for principle air pollutants considered harmful to public health and the environment. Those areas where the NAAQS are not met are designated as “nonattainment.” Polk County, Florida, is classified as “attainment” for all the criteria air pollutants listed in the NAAQS.<sup>2</sup> Typical emission sources at LAL include aircraft engines, ground support equipment, auxiliary power units, motor vehicles, temporary use of construction equipment, and various stationary sources such as fuel storage tanks.

The existing and projected number of passengers and aircraft operations at LAL, in conjunction with the County’s attainment status, indicates that continued development at the airport is likely to not substantially affect air quality, exceed thresholds that require detailed air quality analyses, or require conformance with

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<sup>2</sup> Environmental Protection Agency “Green Book.” [https://www3.epa.gov/airquality/greenbook/anayo\\_fl.html](https://www3.epa.gov/airquality/greenbook/anayo_fl.html). Accessed March 2018.

a State Implementation Plan (SIP).<sup>3</sup> Future airport development projects that require NEPA review will consider the project's effect on air quality. Certain projects and tenant activities, such as operating paint booths, will need to comply with applicable regulations and permit requirements.

### X.3 Prime and Unique Farmlands

FAA Order 1050.1F identifies “prime and unique” farmlands as those agricultural areas that are considered important and protected by federal, state, and local regulations. Those of importance include all pasturelands, croplands, and forests considered to be prime, unique, or of state or local importance. Lands of this nature that are zoned for development are also included in this designation.

Data available from the United States Department of Agriculture (USDA) National Resource Conservation Service (NRCS) was reviewed and there does not appear to be any prime or unique farmlands in the vicinity of LAL. Additionally, LAL is located in an urban area as defined by the United States Census Bureau Urbanized Area Reference Map for Lakeland, FL (Urban Area Code: 46828). Therefore, any projects undertaken at LAL would not impact farmlands protected by the Farmland Protection Policy Act (FPPA).

Should it be determined that a prime or unique farmland of state or local importance has the potential to be impacted by a proposed action at LAL, consultation with the NCRS under the FPPA will occur. This consultation typically involves the use of the Farmland Conversion Impact Rating Form (Form AD-1006) to determine if the land in question is subject to the FPPA and if further action should be taken.

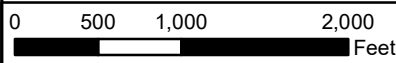
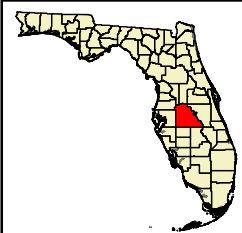
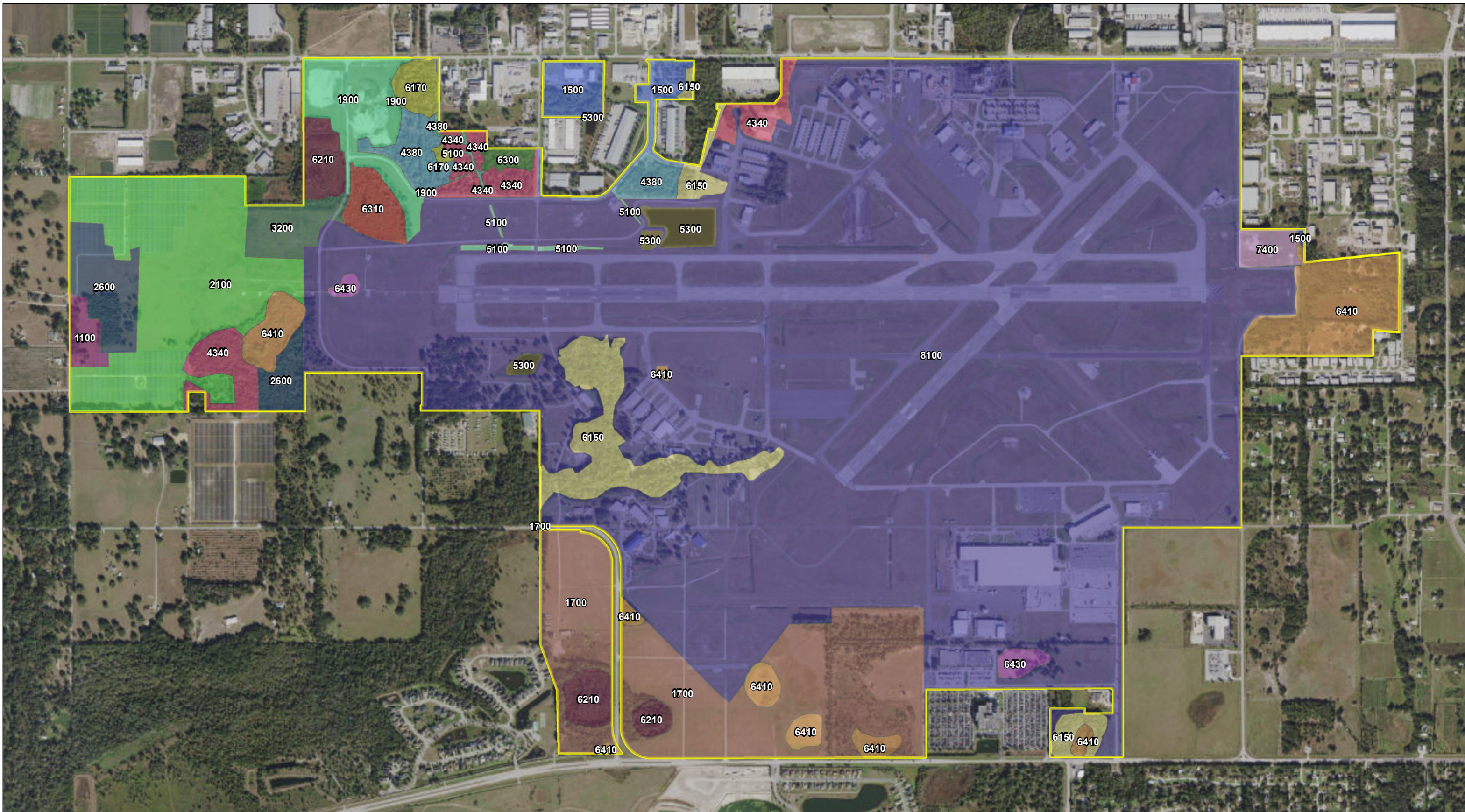
### X.4 Biotic Communities and Vegetation

LAL covers a land area of approximately 1,742 acres. The existing land use and cover types have been mapped for LAL using the Southwest Florida Water Management District (SWFWMD) Florida Land Use and Cover Classifications Systems (FLUCCS) data for Polk County. The FLUCCS communities are listed in **Table X-2** below and are depicted on **Figure 1**.

**TABLE X-2**  
**FLORIDA LAND USE AND COVER CLASSIFICATION SYSTEMS (FLUCCS) COMMUNITIES AT LAL**

Land Use Code	Description
1100	Residential Low Density (Less than 2 Dwelling Units)
1500	Industrial
1700	Institutional
1900	Open Land
2100	Cropland and Pastureland
2600	Other Open Lands (Rural)
3200	Shrub and Brushland
4340	Hardwood Conifer Mixed
4380	Mixed Hardwoods
5100	Streams and Waterways
5300	Reservoirs

<sup>3</sup> Nonattainment areas are required to have a State Implementation Plan (SIP) that prescribes mitigation measures and timelines necessary to bring ambient concentrations of criteria pollutants below the NAAQS.

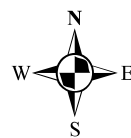


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| <ul style="list-style-type: none"> <li><span style="border: 1px solid yellow; display: inline-block; width: 15px; height: 10px; margin-right: 5px;"></span> LAL Property Line</li> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: #800080; margin-right: 5px;"></span> 1100 - RESIDENTIAL LOW DENSITY &lt; 2 DWELLING UNITS</li> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: #0000FF; margin-right: 5px;"></span> 1500 - INDUSTRIAL</li> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: #8B4513; margin-right: 5px;"></span> 1700 - INSTITUTIONAL</li> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: #00FF00; margin-right: 5px;"></span> 1900 - OPEN LAND</li> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: #32CD32; margin-right: 5px;"></span> 2100 - CROPLAND AND PASTURELAND</li> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: #000080; margin-right: 5px;"></span> 2600 - OTHER OPEN LANDS (RURAL)</li> </ul> | <ul style="list-style-type: none"> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: #2E8B57; margin-right: 5px;"></span> 3200 - SHRUB AND BRUSHLAND</li> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: #FF00FF; margin-right: 5px;"></span> 4340 - HARDWOOD CONIFER MIXED</li> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: #00CED1; margin-right: 5px;"></span> 4380 - MIXED HARDWOODS</li> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: #00FFFF; margin-right: 5px;"></span> 5100 - STREAMS AND WATERWAYS</li> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: #654321; margin-right: 5px;"></span> 5300 - RESERVOIRS</li> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: #FFFF00; margin-right: 5px;"></span> 6150 - STREAM AND LAKE SWAMPS (BOTTOMLAND)</li> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: #9ACD32; margin-right: 5px;"></span> 6170 - MIXED WETLAND HARDWOODS</li> </ul> | <ul style="list-style-type: none"> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: #800080; margin-right: 5px;"></span> 6210 - CYPRESS</li> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: #3CB371; margin-right: 5px;"></span> 6300 - WETLAND FORESTED MIXED</li> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: #FF0000; margin-right: 5px;"></span> 6310 - WETLAND SHRUB</li> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: #FFA500; margin-right: 5px;"></span> 6410 - FRESHWATER MARSHES</li> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: #DDA0DD; margin-right: 5px;"></span> 6430 - WET PRAIRIES</li> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: #DDA0DD; margin-right: 5px;"></span> 7400 - DISTURBED LAND</li> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: #483D8B; margin-right: 5px;"></span> 8100 - TRANSPORTATION</li> </ul> |
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SOURCE: Southwest Florida Water Management District, 2011

Lakeland Linder  
Regional Airport

**Figure 1**  
**Land Use**



**TABLE X-2 (CONTINUED)**  
**FLORIDA LAND USE AND COVER CLASSIFICATION SYSTEMS (FLUCCS) COMMUNITIES AT LAL**

Land Use Code	Description
6150	Stream and Lake Swamps (Bottomland)
6170	Mixed Wetland Hardwoods
6210	Cypress
6300	Wetland Forested Mixed
6310	Wetland Shrub
6410	Freshwater Marshes
6430	Wet Prairies
7400	Disturbed Land
8100	Transportation

Source: SFWMD, 2011, ESA, 2018.

Potential impacts to biotic communities are regulated by a variety of agencies at the federal, state and local level depending upon the project type and community affected.

In Polk County, local agencies support development review but it is the state and federal regulatory agencies that have jurisdiction over the resource categories discussed in this section. These agencies and the coordination typically required are discussed in the following sections related to the specific resources they govern, and include state and federal wetland regulations, water quality protection, and state and federal regulations for protected species.

## X.5 Wildlife and Endangered Species

### *Wildlife Hazard Management*

A FAA compliant Wildlife Hazard Assessment (WHA) was conducted from June 2012 through June 2013. During this assessment cattle egrets, mourning doves, tree swallows, ducks, vultures and white ibis accounted for over 50 percent of all recorded observations as reported in the WHA dated October 2013. Subsequently, a Wildlife Hazard Management Plan (WHMP) was developed and recommendations within that plan are in implementation at the airport. The WHMP is included in the airports Part 139 Certification package and it identifies actions and permits required to manage wildlife at the airport, including protected species. LAL maintains a USFWS Depredation Permit as part of these controls. Future airport development will need to consider the current WHMP and recommendations.

### *Listed Species*

In addition to assessing impacts under NEPA, airport development projects are subject to other federal and state laws associated with wildlife and protected species. Most notable is the federal *Endangered Species Act*, which protects and recovers imperiled species and the ecosystems upon which they depend.<sup>4</sup> The FAA and/or other federal agencies that may be involved with airport development projects at LAL are required to determine if their action(s) would affect listed species.<sup>5</sup> Depending upon the potentially impacted habitat

<sup>4</sup> *Endangered Species Act*. 16 U.S. Code § 1531-1544. December 28, 1973. As amended 1976-1982, 1984, and 1988.

<sup>5</sup> 50 CFR Part 402, *Interagency Cooperation – Endangered Species Act of 1973, as Amended*, Subpart B.

or species affected, coordination with the US Fish and Wildlife Service (USFWS) and the Florida Fish and Wildlife Conservation Commission (FFWCC) may be required. In cases where wetlands are also impacted, this coordination typically occurs in conjunction with the wetland permitting. A discussion of the most likely impacted species at the airport, and the coordination required for each, is included in this section.

A review of publically available resources (Florida Natural Areas Inventory (FNAI), etc.), previous environmental studies, WHA, surveys, and agency communication (from prior permits and NEPA reviews) has identified suitable habitat at LAL for a number of federal and state-listed species. **Table X-3** provides a list of the listed species for which suitable habitat exists, or there is a likelihood of occurrence on or near LAL.

**TABLE X-3**  
**FEDERAL AND STATE LISTED WILDLIFE SPECIES IN THE VICINITY OF LAL**

Common Name	Scientific Name	USFWS Listing	FFWCC Listing
<b>Amphibians</b>			
Gopher Frog	<i>Rana capito</i>		SSC
<b>Reptiles</b>			
American Alligator	<i>Alligator mississippiensis</i>	T(S/A)	
Bluetail Mole Skink	<i>Eumeces egregius lividus</i>	T	
Eastern Indigo Snake	<i>Drymarchon corais couperi</i>	T	
Gopher Tortoise	<i>Gopherus polyphemus</i>		T
Sand Skink	<i>Neoseps reynoldsi</i>	T	
<b>Birds</b>			
Crested Caracara	<i>Caracara cheriway</i>	T	
Bald Eagle	<i>Haliaeetus leucocephalus</i>	*	
Florida Burrowing Owl	<i>Athene cunicularia floridana</i>		SSC
Florida Grasshopper Sparrow	<i>Ammodramus savannarum floridanus</i>	E	
Florida Sandhill Crane	<i>Grus canadensis pratensis</i>		T
Florida Scrub Jay	<i>Aphelocoma coerulescens</i>	T	
Limpkin	<i>Aramus guarana</i>		SSC
Little Blue Heron	<i>Egretta caerulea</i>		SSC
Roseate Spoonbill	<i>Ajaja ajaja</i>		SSC
Snail Kite	<i>Roshrhamus sociabilis plumbeus</i>	E	
Snowy Egret	<i>Egretta thula</i>		SSC
Southeastern American Kestrel	<i>Falco sparverius paulus</i>		T
Tricolored Heron	<i>Egretta tricolor</i>		SSC
White Ibis	<i>Eudocimas albus</i>		SSC
Wood Stork	<i>Mycteria americana</i>	T	
<b>Mammals</b>			
Florida Black Bear	<i>Ursus americanus floridanus</i>		T
Florida Mouse	<i>Podomys floridanus</i>		SSC
Sherman's Fox Squirrel	<i>Sciurus niger shermani</i>		SSC

This information is provided as a guide to project planning, and is not a substitute for site-specific surveys. Such surveys may be needed to assess species' presence or absence, as well as the extent of project effects on listed species and/or designated critical habitat.

USFWS = United States Fish and Wildlife Service

FFWCC = Florida Fish and Wildlife Conservation Commission

E = Endangered

T = Threatened

SSC = Species of Special Concern

T(S/A) = Threatened (Similarity of Appearance to American crocodile - *Crocodylus acutus*)

\* = Protected under the BGEPA (16 U.S.C. 668-668d), as amended, and the MBTA (16 U.S.C. 703-712)

Source: USFWS, FFWCC

Note: Candidate species receive no statutory protection under the Endangered Species Act (ESA). The FWS encourages cooperative conservation efforts for these species because they are, by definition, species that may warrant future protection under the ESA.

## Species with Suitable Habitat at LAL that May Require Regulatory Coordination

Most of the undeveloped portions of the airport property provide suitable habitat for the state-listed gopher tortoise (*Gopherus polyphemus*, Threatened) and the federally-listed eastern indigo snake (*Drymarchon couperi*, Threatened). Gopher tortoise burrows are found in most upland habitats and are protected from any type of soil disturbance by a 25-foot buffer. Previous projects undertaken at LAL have identified the presence of gopher tortoises, and if additional actions are proposed, a gopher tortoise survey using the methodology described in the FFWCC's "Available Options to Address the Presence of Gopher Tortoises on Lands Slated for Development" would be required to determine their presence or absence. If their presence is confirmed, coordination with the FFWCC and a gopher tortoise relocation permit may be required.

Eastern indigo snakes can occur within most of the existing, undeveloped habitats on airport property. Current guidance requires that disturbance of more than 25 acres of undeveloped land triggers coordination with the USFWS. The eastern indigo snake has been known to occur in Polk County, and since it is considered a commensal species that often utilizes gopher tortoise burrows for shelter and nesting, proposed project areas that are surveyed and determined to contain gopher tortoise burrows may also contain eastern indigo snakes. Their presence would typically be determined during gopher tortoise relocation activities, and in those cases, guidelines and conditions are typically included within the gopher tortoise relocation permit. As previously mentioned, if more than 25 acres of eastern indigo snake habitat is disturbed, USFWS coordination is required and the implementation of USFWS Standard Protection Measures for the eastern indigo snake will be required. If the indigo snake is documented within a proposed project area, USFWS coordination is required and permitting and USFWS consultation (under Section 7 of the ESA) may be required.

The federally listed wood stork (*Mycteria Americana*, Threatened) is a species that typically utilizes shallow waterbodies, including a variety of herbaceous wetlands, coastal areas, ponds, ditches, creeks, and impounded water areas, for foraging opportunities. LAL is located within a USFWS designated Wood Stork Core Foraging Area; therefore, given the extent of wetlands and man-made drainage features on-airport property, future development projects that impact appropriate wood stork foraging habitat may require USFWS coordination and possibly mitigation. This coordination is usually completed through the wetland permitting processes (USACE and SWFWMD) and, if required, wood stork habitat mitigation is typically accomplished in conjunction with state and federal permitting actions for impacting wetlands and waterbodies.

The sand skink (*Neoseps reynoldsi*, Threatened) and bluetail mole skink (*Eumeces egregius lividus*, Threatened) are federally listed (threatened) species endemic to xeric habitats found along Central Florida sand ridges and remnant coastal dunes. Habitat for these species includes rosemary scrub, scrubby flatwoods, sand pine and oak scrubs, and turkey oak ridge. The Florida sand skink and blue tailed mole

skink is only found within 20 specific soil types in seven Central Florida counties: Osceola, Polk, Lake, Highlands, Putnam, Orange, and Marion, and is therefore highly protected with very specific survey protocols. Areas with likelihood of occurrence would require surveys and consultation with the USFWS and FFWCC and potentially mitigation if skinks are identified.

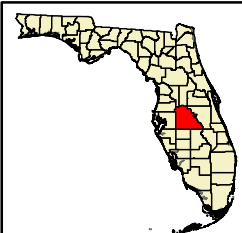
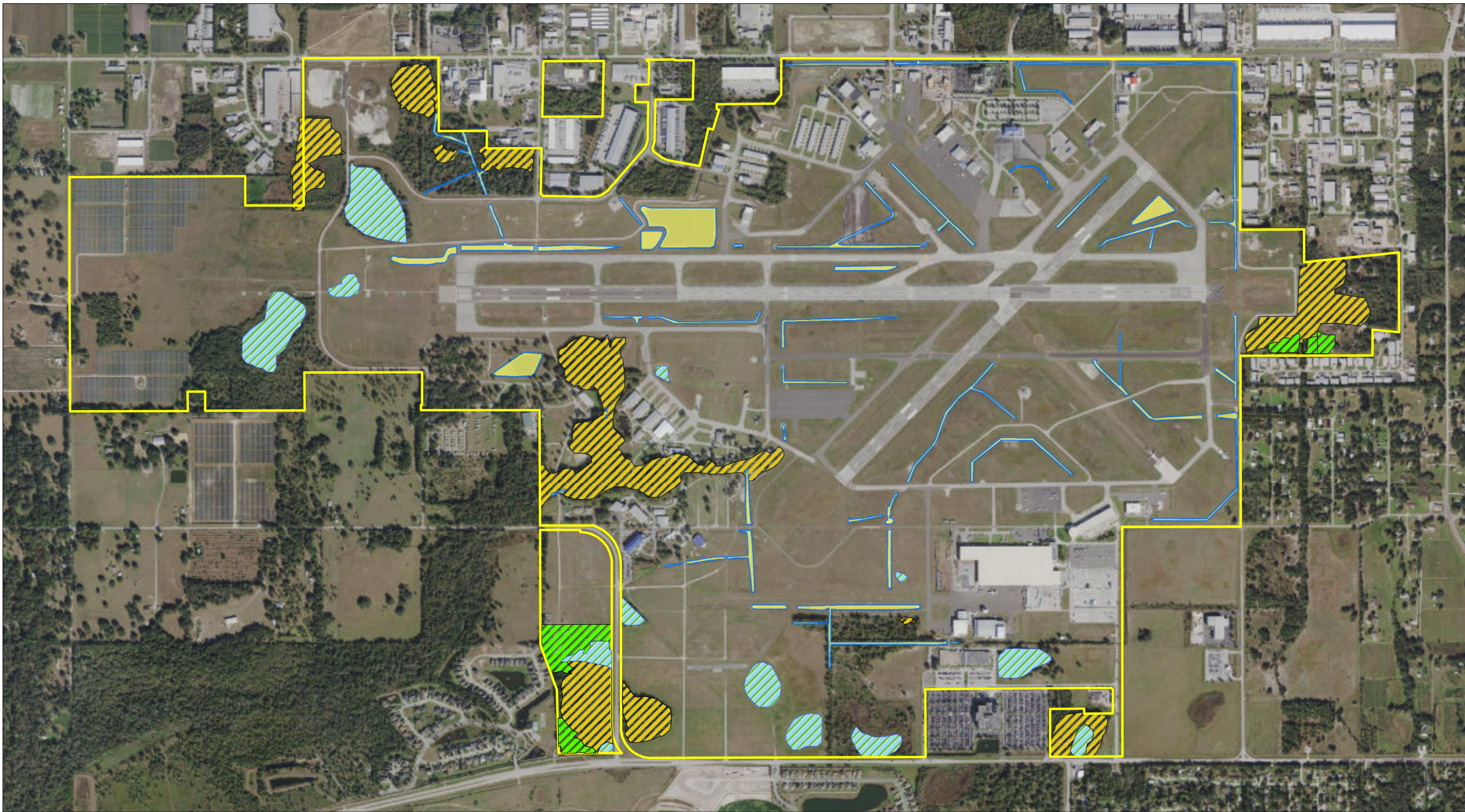
## X.6 Wetlands and Water Resources

Prior environmental studies and reports, GIS data and other publically available data was reviewed to determine the extent of wetlands and other water resources on airport property. The most recent FLUCCS data was utilized to approximate the limits of wetlands and other surface waters where no previously delineated wetland mapping data was available. The USACE, the Florida Department of Environmental Protection (FDEP), and the State of Florida's Water Management Districts have jurisdiction over and regulate activities that impact wetlands, surface waters, and/or stormwater management systems through the Environmental Resource Permit (ERP) Program in Florida. For wetland impacts that occur at LAL, the SWFWMD and USACOE maintains jurisdiction over these resources.

### Wetlands

In addition to review through the NEPA process, the wetlands at LAL are subject to two levels of regulatory jurisdiction: state (SWFWMD) and federal (USACE/USEPA). While the agencies have similar missions, the criteria for delineation, permitting and mitigation of wetlands varies between them. While not all of the wetland areas on the airport have been field reviewed or delineated, the mapping in the MPU represents the best combination of previous wetland delineations, various database GIS information, aerial photo interpretation and available field reconnaissance. A field wetland delineation should be conducted and followed by coordination with SWFWMD and/or the USACE for new development projects that have the potential to impact wetland and surface water areas in order to determine whether permitting will be necessary. When permits are required (wetlands impacted in excess of the minimum allowances), the permitting process is completed through independent coordination with each of the agencies for which jurisdictional impacts occur. The USACE would require a permit for impacts under their jurisdiction, *Waters of the United States* under the *Clean Water Act of 1972*, as amended. The Section 404(b)(1) Clean Water Act (CWA) permitting process is typically completed concurrently with state permitting, though the two processes are separate. The state ERP process combines the environmental regulatory review with the water quality and water quantity (stormwater) review. Where impacts are significant, wetland mitigation may be required and would be determined on a case by case basis. During the permitting process the permittee must first show that steps have been taken to avoid/minimize impacts to wetlands and other aquatic resources and that compensatory mitigation will be provided for unavoidable impacts to wetland and waterbody resources.

As depicted in **Figure 2**, the airport property contains numerous wetlands and surface waters (ponds and ditches). These areas occur throughout LAL, but are most abundant in the western portions of the airport property. The airport contains both forested and herbaceous wetland systems and a variety of habitats ranging from open water to cypress systems. The wetlands have been evaluated through a number of projects and the typical wetland quality is considered moderate with varying degrees of hydrologic impacts. Due to the limited mitigation options in the LAL drainage basin (Alafia River Drainage Basin) finding suitable mitigation for wetland impacts may be limited largely to onsite options if a Mitigation Bank is not available during the permitting process. Though not ideal, on-site mitigation has been the predominant



0 500 1,000 2,000 Feet

Yellow outline: LAL Property Line

Yellow fill: Other Surface Waters (41.50 Acres)

Yellow diagonal lines: Forested Wetlands (89.87 Acres)

Light blue diagonal lines: Non-Forested Wetlands (38.13 Acres)

Green diagonal lines: Wetland Mitigation Areas (11.60 Acres)

SOURCE: Southwest Florida Water Management District, 2011; ESA, 2018  
NOTE: ESA Wetlands and surface waters were field delineated and photo interpreted from various projects from 2013 - 2018.

Lakeland Linder  
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**Figure 2**  
**Wetlands and**  
**Surface Waters**



strategy for offsetting project impacts due to the lack of an available Mitigation Bank located within the basin, therefore, several wetland mitigation areas are located on airport property. The mitigation type and location have been developed under the WHA and WHMP and have been designed to minimize potential hazards. As offsite options for mitigation become available, LAL may permit the relocation of mitigation off airport property to improve safety and facilitate airport development.

### Other Surface Waters (OSW)

LAL maintains a network of upland cut ditches and stormwater ponds associated with the airport's drainage system. No streams or waterbodies that would be classified as "impaired" under state water quality standards are located on or immediately adjacent to LAL property.

The airport operates under stormwater management permits and implements pollution prevention plans and best management practices. LAL has a network of drainage ditches and ponds used for stormwater conveyance and storage, some of which maintain connections to other surface waters. Permitting will be required should a proposed project at LAL be determined to impact such facilities. National Pollutant Discharge Elimination System (NPDES) regulations also serve to protect water quality. In the State of Florida, the NPDES permit program is administered by the FDEP. An NPDES Generic Permit for construction is required for projects that disturb greater than 0.5 acre. Therefore, proposed construction projects at LAL that exceed this threshold would require an NPDES permit.

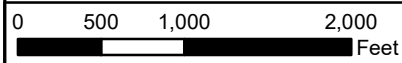
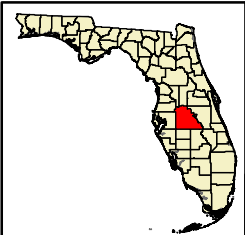
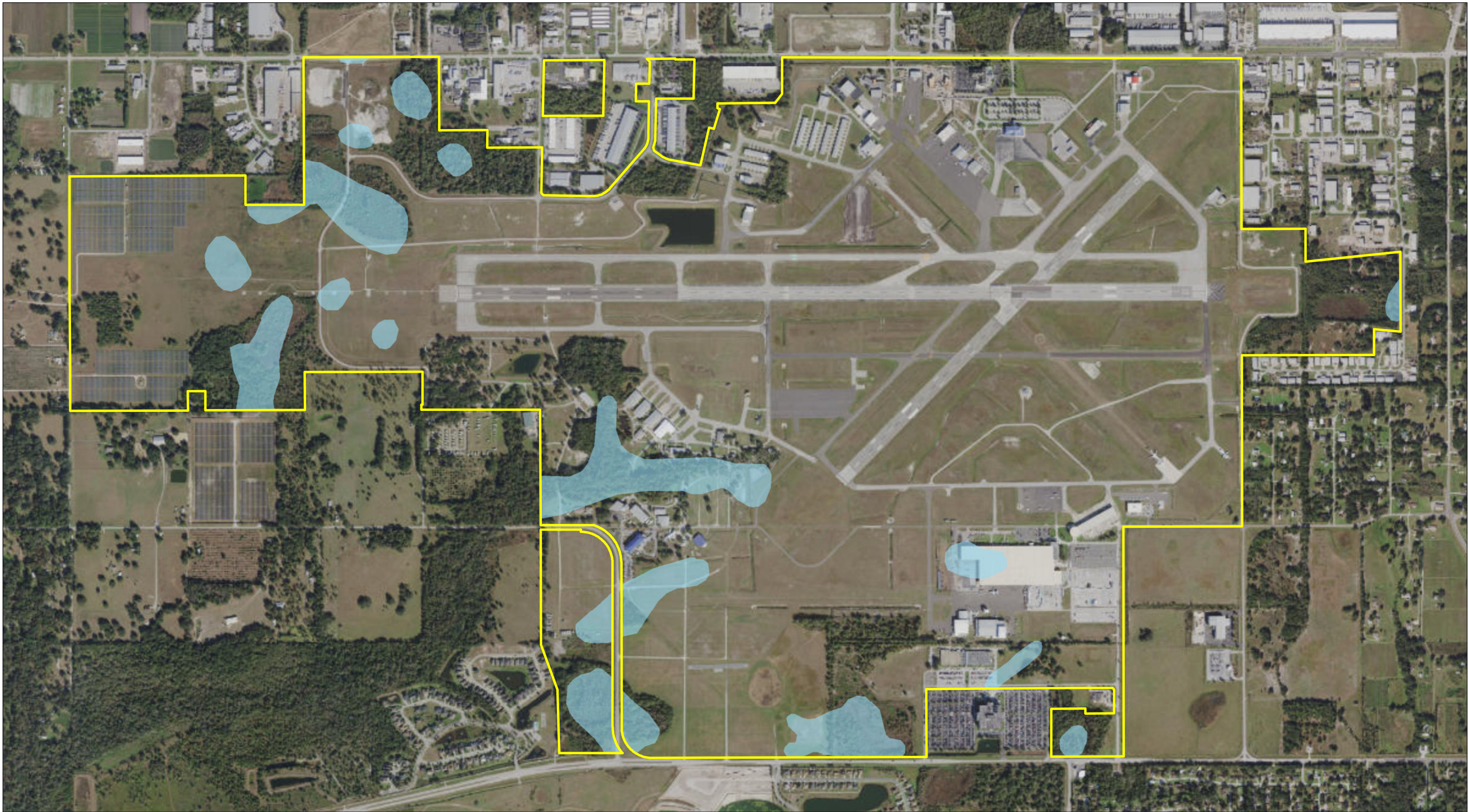
### Floodplains

Executive Order 11988, *Floodplain Management*,<sup>6</sup> directs federal agencies "to take actions to reduce the risk of flood loss, minimize the impact of floods on human safety, health, and welfare, and restore and preserve the natural and beneficial values served by the flood plains."<sup>7</sup> Department of Transportation Order 5650.2, *Floodplain Management and Protection*, and FAA Orders 1050.1F and 5050.4B contain policies and procedures for implementing the Executive Order and evaluating potential floodplain impacts. Agencies are required to make a finding that there is no practicable alternative before taking action that would encroach on a floodplain based on a 100-year flood (7 CFR 650.25).

The Federal Emergency Management Agency (FEMA) identifies flood hazard areas that are depicted on Flood Insurance Rate Maps (FIRMs). A floodplain is defined as the lowlands and relatively flat areas adjoining inland and coastal waters including flood prone areas of offshore islands that are, at a minimum, prone to the 100-year flood. The 100-year floodplain is considered the base floodplain. Flood hazard areas identified on FIRMs are defined as Special Flood Hazard Area, which are assigned with various zone designations signifying their individual characteristics. Zone A is subject to inundation by the one percent annual chance flood event, and Zone B is a moderate flood hazard area. **Figure 3** depicts the floodplain locations on airport property. Designated as Zone A, these are special flood hazard areas inundated by a 100-year flood event with no base flood elevations determined. A 100-year flood event is a flood event that has a one percent chance of occurring annually.

<sup>6</sup> Executive Order 11988, "Floodplain Management", May 24, 1977 (42 FR 26951).

<sup>7</sup> FAA Order 1050.1F, Appendix A Section 9.9.1.



LAL Property Line
  FEMA Floodplain Zone A

SOURCE: FEMA Flood Insurance Rate Map, Panel 1202610475D, 1996

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**Figure 3**  
**FEMA Floodplains**



## X.7 Department of Transportation Act: Section 4(f) and Other Environmentally Sensitive Public Lands

Section 4(f) of the *Department of Transportation Act of 1966* (re-codified and renumbered as Section 303(c) of 49 United States Code) states that the Secretary of Transportation will not approve any program or project that requires the use of publicly-owned land of a public park, recreation area; or wildlife and waterfowl refuge of national, state, or local significance; or land of an historic site of national, state, or local significance as determined by the officials having jurisdiction thereof, unless:

1. There is no feasible and prudent alternative to use of such land and such program, and
2. The program or project includes all possible planning to minimize harm to the park, recreation area, wildlife and waterfowl refuge, or historic site resulting from the use.

No sites listed in, or eligible for listing in the National Register of Historic Places (NRHP) were identified on or adjacent to the airport. There are no Section 4(f) resources located within the immediate vicinity of LAL.

If a proposed project is anticipated to result in impacts to a Section 4(f) resource, coordination with applicable agencies (US Department of the Interior (DOI), USDA, or Housing and Urban Development (HUD)), in addition to any state/local officials with jurisdiction over and Section 4(f) property that may be potentially impacted by a proposed airport action, would typically be conducted as part of the NEPA process.

## X.8 Historical, Archaeological, and Cultural Resources

NEPA requires Federal agencies to consider the potential effect of their actions on “the human environment,” which includes cultural as well as natural aspects of the environment. NEPA regulations (40 CFR 1502.25) encourage integration of the NEPA review process with other environmental laws. Several laws and regulations require that possible effects on historic, archaeological, and cultural resources be considered during the planning and execution of federal undertakings. The primary laws that pertain to the treatment of historic, architectural, archaeological, and cultural resources during environmental analyses are the *National Historic Preservation Act* (NHPA), the *Archaeological Resources Protection Act*, and the *Native Graves Protection and Repatriation Act*. Executive Order 13175, *Consultation and Coordination with Indian Tribal Governments* and the Presidential Memorandum of April 29, 1994, *Government-to-Government Relations with Native American Tribal Governments*, require that the FAA consult directly with tribal governments on federal undertakings that may affect federally-recognized Native American Indian tribes.

A review of the EPA’s NEPAassist database and the NRHP did not reveal any sites that are listed in, or are eligible for listing in the NRHP in the vicinity of LAL. Prior studies at LAL that required coordination with the Florida State Historic Preservation Office (SHPO) indicate that there are no known historic, archeological, or cultural resources located within airport property.

## X.9 Energy Supply and Natural Resource Use

Lakeland Electric is responsible for providing electrical service to LAL and maintains a network capable of serving existing and prospective future tenants at the airport. Any proposed airport improvements projects would require lighting; power for specialized equipment, tools, and processes; office equipment; and air conditioning. Local power utility requirements would include the need for electric service. Any additional improvements proposed at LAL will require an evaluation of the energy needs to determine the steps necessary to make such accommodations.

Although a threshold has not been specifically identified by the FAA, it is not anticipated that future airport improvements or development projects would have a significant impact on natural resources and energy supplies.

## X.10 Hazardous Materials

Federal, state, and local laws regulate hazardous materials use, storage, transport, or disposal. Major laws and issue areas include:

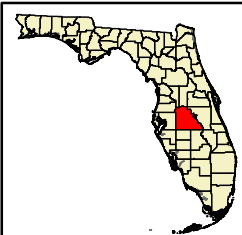
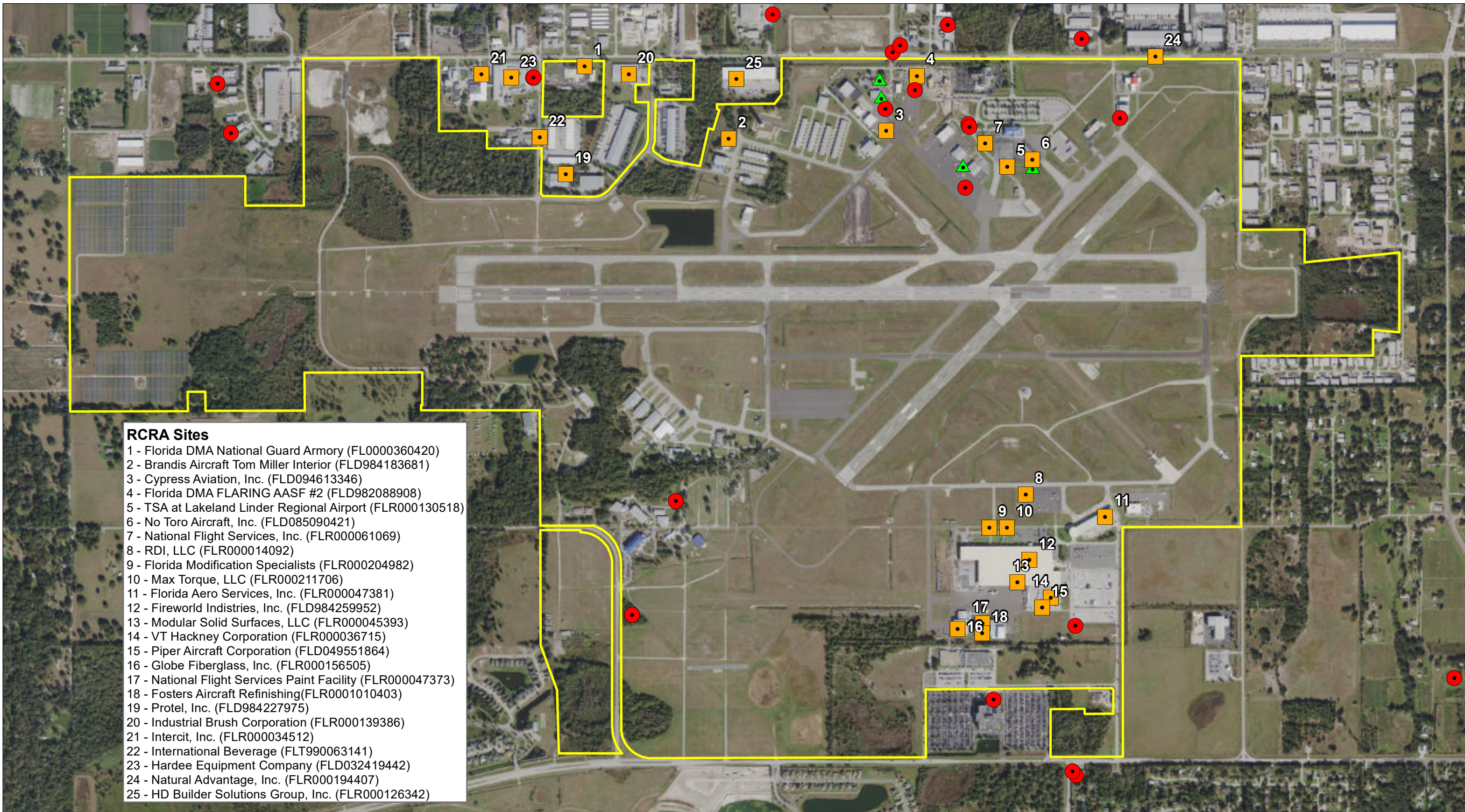
- *Resources Conservation and Recovery Act (RCRA)* - hazardous waste management.
- *Hazardous and Solid Waste Amendments Act* - hazardous waste management.
- *Comprehensive Environmental Response, Compensation, and Liability Act* - cleanup of contamination.
- *Superfund Amendments and Reauthorization Act (SARA)* - cleanup of contamination.
- *Emergency Planning and Community Right-to-Know (SARA Title 111)* - business inventories and emergency response planning.

According to the Florida Department of Environmental Protection (DEP) Contamination Locator Map (CLM)<sup>8</sup>, there are four cleanup sites located on airport property, of which there are two active and one pending petroleum cleanup sites. The remaining site is classified as “other” (non-petroleum) and also listed as active. Two of the sites are located off of Airfield Drive West, west of the main airport entrance. The remaining sites are located south of the main terminal building. Available data indicates the contamination is the result of the discharge of petroleum based products from either above or below ground storage tank systems at the three petroleum cleanup sites and the result of the discharge of Volatile Organic Compounds (VOCs) at the site classified as “other”. No other hazardous cleanup sites are located on-airport property.

The RCRA on-line database lists facilities that store, generate, transport, treat, and dispose of hazardous wastes (items such as waste oils, paint solvents, and other hazardous materials). It should be noted that sites included in this database do not necessarily involve contamination. There are multiple RCRA sites located on LAL property which are summarized in **Table X-4** and shown on **Figure 4**.

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<sup>8</sup> Available at: <http://prodenv.dep.state.fl.us/DepClnup/welcome.do>. Accessed March 2018.



0 500 1,000 2,000 Feet

LAL Property Line Petroleum Cleanup Sites  
 Fuel Storage Tanks RCRA Sites

SOURCE: Florida Department of Environmental Protection, 2018; Environmental Protection Agency, 2018

Lakeland Linder  
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**Figure 4**  
**Contamination**  
**Sites**



**TABLE X-4**  
**RESOURCES CONSERVATION AND RECOVERY ACT (RCRA) SITES**

Handler ID	Name	Generator Type	Compliance/ Enforcement Issues <sup>1</sup>
FLR000110403	Fosters Aircraft Refinishing, Inc.	Small Quantity Generator	None
FLR000156505	Globe Fiberglass, Inc.	Conditionally Exempt Small Quantity Generator	None
FLR000047373	National Flight Services Paint Facility	Not Available	Not Available
FLD984259952	Fireworld Industries, Inc.	Not Available	Not Available
FLR000047381	Florida Aero Services, Inc.	Conditionally Exempt Small Quantity Generator	None
FLR000204982	Florida Modification Specialists, Inc.	Conditionally Exempt Small Quantity Generator	None
FLR000211706	Max Torque, LLC	Small Quantity Generator	None
FLR000045393	Modular Solid Surfaces, LLC	Conditionally Exempt Small Quantity Generator	None
FLD049551864	Piper Aircraft Corporation	Not Available	Not Available
FLR000036715	VT Hackney Corporation	Not Available	Not Available
FLR000014092	RDI, LLC	Conditionally Exempt Small Quantity Generator	None
FLD984227975	Protel, Inc.	Conditionally Exempt Small Quantity Generator	None
FL0000360420	Florida DMA National Guard Armory	Conditionally Exempt Small Quantity Generator	None
FLD032419442	Hardee Equipment Company	Not Available	Not Available
FLR000139386	Industrial Brush Corporation	Conditionally Exempt Small Quantity Generator	None
FLR000034512	Intercit, Inc.	Large Quantity Generator	2 violations/compliance issues in past 5 years
FLT990063141	International Beverage	Conditionally Exempt Small Quantity Generator	None
FLD984183681	Brandis Aircraft Tom Miller Interior	Not Available	Not Available
FLD094613346	Cypress Aviation Inc.	Not Available	Not Available
FLD982088908	Florida DMA FLARNG AASF #2	Not Available	Not Available
FLR000126342	HD Builder Solutions Group, Inc.	Not Available	Not Available
FLD085090421	No Toro Aircraft, Inc.	Not Available	Not Available
FLR000130518	TSA at Lakeland Linder Regional Airport	Small Quantity Generator	None
FLR000061069	National Flight Services, Inc.	Conditionally Exempt Small Quantity Generator	None
FLR000194407	Natural Advantage, LLC	Large Quantity Generator	None

1. Compliance and enforcement information available in the EPA ECHO report only available for previous 5-year period.
2. Generator type unavailable from EPA at time of search (November 2017).

SOURCE: EPA, 2018.

National Priority List (NPL) sites, also referred to as “Superfund” sites, are considered by EPA to have the most significant public health and environmental risks to neighboring areas. A review of EPA on-line databases did not reveal any NPL sites or facilities within or adjacent to LAL property.

## X.11 Coastal Zone Management

The Coastal Zone Management Act (CZMA) aims to preserve, protect, develop, and where possible, restore and enhance the resources of the nation's coastal zone. The DEP, Office of Intergovernmental Programs, FSC is responsible for directing the implementation of the Florida Coastal Management Program (FCMP) and coordinating review of Federal actions under the following authorities: *Presidential Executive Order 12372*; Section 403.061 (42), Florida Statutes; *Coastal Zone Management Act*, 16 U.S.C. Sections 1451-1464, as amended; and, *National Environmental Policy Act*, 42 U.S.C. Sections 4321-4347, as amended. The program is implemented through a network of programs and 24 statutes administered by agencies including the FDEP, the FFWCC, the Department of State (DOS), the Division of Emergency Management, the Department of Transportation (DOT), the Department of Health (DOH), the Division of Historical Resources (DHR), the Department of Economic Opportunity, the Florida Building Commission and the Department of Agriculture and Consumer Services (DACS). SWFWMD is also a cooperating member in the consistency review process for the area in which Airport is located. The Airport is located within the coastal zone; therefore, coastal zone consistency would be required for new development at the Airport. The coastal zone consistency determination is a part of the ERP application process. It is anticipated that coastal zone consistency would be obtainable for the projects that are under consideration for development at the Airport. The FWS maintains Coastal Barrier Resources System (CBRS) maps for the State of Florida. These maps designate which lands are within coastal areas regulated by the Coastal Barrier Resource Act (CBRA).<sup>9</sup> LAL has no lands within the CBRS.

## X.12 Construction Impacts

Impacts resulting from the construction of a proposed project are generally short-term in nature and temporary at any one location, and would vary depending on the nature of the projects that are implemented. The construction required for any improvement or proposed developments could have the potential to impact air quality, surface transportation, water quality, and noise through the use of heavy equipment and vehicle trips generated from construction workers traveling to and from the project site. Each project will be required to adhere to the applicable Stormwater Pollution Prevention Plan (SWPPP) in place at LAL. For projects that would result in construction taking place in proximity to residential areas, those construction activities would be subject to local noise ordinances. LAL is bounded by both major and minor arterial roadways; therefore, there is the potential for construction traffic to travel in proximity to residential areas. The evaluation of potential construction impacts would be required as part of any NEPA analysis conducted prior to the commencement of construction activities for any proposed project(s) at LAL.

## X.11 Summary

As discussed in the introduction, this overview does not constitute a NEPA evaluation. Instead, it is intended to help prepare the airport for any NEPA review that may be required by the FAA for future projects by identifying the resource categories that are likely to be involved. Additional review, verification, and evaluation of environmental resources will be conducted during the NEPA evaluation process. Based on

<sup>9</sup> Official CBRS map for the state of Florida can be viewed at: <https://www.fws.gov/CBRA/Maps/Mapper.html>

the results of the research conducted and documented in this chapter, **Table X-5** provides a summary of the likelihood that each resource category may require further evaluation or mitigation.

**TABLE X-5**  
**POTENTIAL FOR ENVIRONMENTAL IMPACTS**

<b>Resource Category</b>	<b>Impact Likelihood</b>	<b>Additional Information</b>
Air Quality	Unlikely	LAL is located in an attainment area.
Prime and Unique Farmlands	Unlikely	There are no prime or unique farmlands located near LAL, and the airport is located within a designated urban area.
Vegetative, Wildlife, and Endangered Species	Potential	Previous projects at LAL have identified the existence of state and federally listed species
Water Resources, Drainage, and Hydrology	Potential	Consideration should be given to the avoidance and minimization of impacts to wetlands and floodplains
Section 4(f) and Other Environmentally Sensitive Public Lands	Unlikely	No known properties located on or near airport property.
Historical, Archeological, and Cultural Resources	Unlikely	No known sites on or near airport property.
Energy Supply and Natural Resources	Unlikely	Future projects at LAL would be unlikely to have a significant impact on natural resources and energy supplies.
Hazardous Materials	Unlikely	Laws governing hazardous materials use and Best Management Practices make it unlikely to result in foreseeable impacts.
Construction Impacts	Potential	Construction of proposed improvements may result in temporary impacts to air quality, noise, surface transportation, stormwater, and water quality.

SOURCE: ESA, 2018.