

Chapter 2 - Inventory of Existing Conditions

2.1 Introduction

The purpose of the inventory is to summarize existing conditions of all facilities at PDK as well as to summarize other pertinent information relating to the community, airport background, airport role, surrounding environment, and various operational characteristics. The information in this chapter provides the baseline for determining future facility needs. This chapter will provide an inventory of the following:

- Airport Characteristics,
- Airside Facilities,
- General Aviation Facilities,
- Airspace and Air Traffic Control,
- Environmental Considerations, and
- Zoning and Municipal Boundaries,

The necessary inventory data has been collected from various sources, including:

- Interviews with airport management,
- Interviews with airport users and tenants,
- Airport site visits,
- Research and review of previous airport planning analyses and studies, and
- Review of aerial photography, mapping, and city and county Geographic Information System (GIS) data.

2.2 Airport Characteristics

2.2.1 Meteorological Data

Due to the effect of weather on aircraft performance and airfield design, an overview of meteorological characteristics for the Chamblee area is presented in the following section.

<u>Climate</u>

The field elevation at DeKalb-Peachtree Airport is 998 feet above Mean Sea Level (MSL). Located north in the Piedmont region of Georgia, weather conditions are generally mild, characterized by warm summers and largely cool winters. According to the National Oceanic and Atmospheric Administration (NOAA), for period 1981-2010, the average temperatures range from 88.2° Fahrenheit (F) to 68.9° F during the summer. During the winter the temperatures range from 53.6° F to right about the freezing level at 34.8° F. The mean daily maximum temperature of the hottest month is 89.4° F.

Further information regarding airport wind conditions will be presented in Chapter 4, *Facility Requirements*.



2.3 Airside Facilities

The airside facilities support all arriving and departing operations of aircraft. Runways, taxiways, navigational aids (NAVAIDS), visual aids, signage, and lighting comprise the airside facilities.

2.3.1 Runways and Taxiways

The airport is served by three runways: Runway 3R-21L, Runway 3L-21R, and Runway 16-34. In addition, Helipad Charlie and a system of taxiways make up the airfield. These airside facilities are shown on **Figure 2-1**.

Runways 3R-21L and 3L-21R align with the prevailing winds and are the most utilized runways on the airfield. Runway 16-34 is primarily used to support smaller aircraft in crosswind weather conditions.

Airport runways are named using their magnetic compass orientation. Runway 3R-21L and Runway 3L-21R are aligned in a northeast/southwest 030°/210° direction. Since these runways are parallel, a left (L) and right (R) designation are added to each runway end. Runway 16-34 is aligned in a northwest/southeast 160°/340° direction. Over time, the runway naming designations will change due to drift of the magnetic north pole.

A fourth runway, Runway 9-27 was oriented in an east/west 090°/270° direction. The runway was closed in 2012 due to low utilization and the need for additional aircraft storage space.

Runway 3R-21L

Runway 3R-21L is a concrete runway measuring 6,001 feet in length by 100 feet in width. Runway 3R-21L has straight-in instrument approach procedures, which are necessary for poor weather conditions. The runway surface is grooved for better drainage and traction during wet conditions. For obstacle clearance, the landing threshold of Runway 21L is displaced 999 feet towards the south. In 2018, an Engineered Materials Arresting System (EMAS) was installed on the south end of the runway. EMAS is a bed of high energy absorbing materials that provide enhanced runway safety in the event of an aircraft overrun.

Runway 3L-21R

Runway 3L-21R is an asphalt runway measuring 3,146 feet long and 150 feet wide. Runway 3L-21R has a visual runway basic runway markings. Runway 3L-21R does not have displaced thresholds. No straight in instrument approaches serve this runway.

Runway 16-34

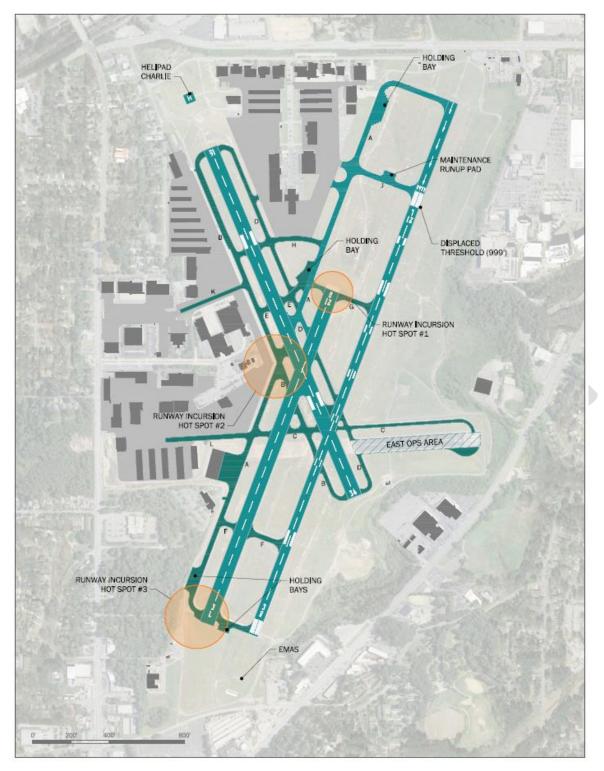
Runway 16-34 measures 3,967 feet in length and 150 feet in width and is constructed of asphalt. Runway 16-34 is a visual runway and has basic runway markings with touchdown points. Runway 16-34 does not have displaced thresholds. No straight-in instrument approaches serve this runway.

Helipad Charlie

Helipad Charlie measures 56 feet in length by 56 feet in width and is constructed of concrete. The helipad has a standard heliport identification symbol with Touchdown and Liftoff Area (TLOF) markings. No instrument approaches serve this runway.







Source: Michael Baker International, 2018.



2.3.2 Taxiway System

In addition to the runways, the airside facility at PDK consists of a taxiway system that provides access between the airside surfaces and the landside aviation use areas. These taxiways are depicted on **Figure 2-1**. All runways have parallel taxiways with a separation that varies but is at least 200 feet from runway centerlines. Taxiway A located on the west side of the Runway 3L-21R is 50 feet wide. Taxiway B, situated on the west side of Runway 16-34, is 50 feet wide. Taxiway C, positioned across the central node of the airfield, is approximately 35 feet wide. Taxiway D, positioned on the east side of Runway 16-34, is 40 feet wide. The airport has seven additional connector taxiways that join the runways and parking apron areas. The taxiways are paved with a combination of asphalt or concrete in certain segments.

The taxiway system has runup pads near the thresholds of Runway 3L-21R and 3R-21L on Taxiways A and E. These runup pads allow pilots to conduct pre-take-off flight checks. In addition, a runup pad is located on Taxiway J, which is primarily used by aircraft undergoing engine maintenance checks.

The FAA Airport Diagram identifies three taxiway "hot spots" at PDK. Hot spots are locations designated for enhanced awareness of potential runway incursions. A runway incursion is an occurrence involving the incorrect presence of an aircraft, vehicle or person on the protected area of a surface designated for the landing and take-off of aircraft. These hotspots are identified on **Figure 2-1**.

2.3.3 Pavement Strength and Condition

The integrity of pavement throughout airport property is crucial to ensuring safe and effective operations. Pavement strength requirements factor three key elements:

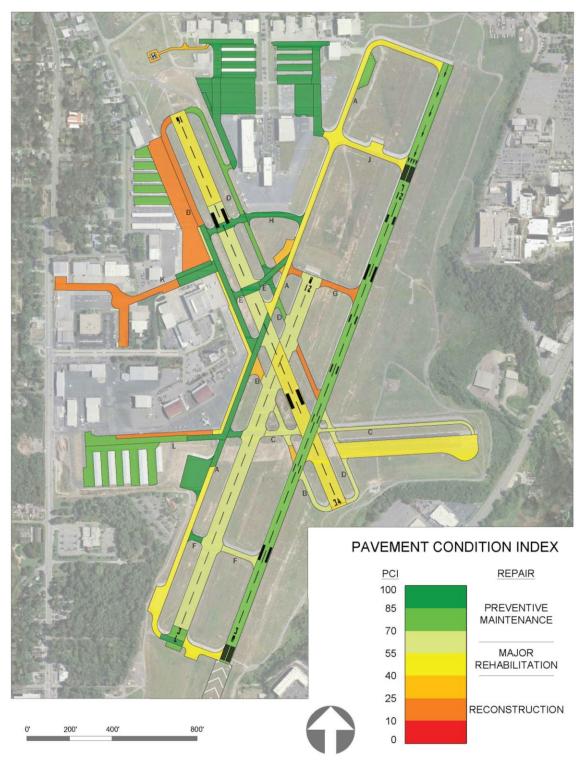
- Aircraft weight expected to use airport,
- Frequency of airport operations, and
- The landing gear geometry of each aircraft.

The Pavement Condition Index (PCI) is based on a visual inspection of pavement condition. The GDOT recently completed a statewide inventory of airport pavements in 2018. The draft findings were published in the 2019 Georgia Airport Pavement Management Report. Per the 2019 report, PDK had an overall PCI of 66.9. The runways had an average PCI of 65.2, the taxiways had PCI values ranging from 45 PCI to 81 PCI. On a 100-point scale, with 100 being perfect condition, the runway and taxiways are in good to fair condition. The apron areas and helipad had average 79.4 PCI. According to the report's pavement condition distribution, reconstruction of 1,400,000 square-feet of pavement area out of 4,609,035 square-feet is recommended at PDK. This information is presented in **Figure 2-2**.

According to FAA's 5010 Form, Airport Master Records, 2019, Runway 3L-21R and Runway 16-34 have a pavement strength of 20,000 pounds single-wheel loading. Runway 3R-21L has pavement strengths of 46,000 pounds single-wheel and 75,000 pounds dual-wheel loading.



Figure 2-2: Pavement Condition Index



Source: 2019 GDOT Pavement Condition Report.



2.3.4 Navigational Aids (NAVAIDs)

NAVAIDs provide visual and/or electronic guidance to pilots approaching the airport. PDK's NAVAID capabilities are described as follows.

Instrument Landing System (ILS)

Runway 21L is equipped with an ILS precision approach equipment, providing aircraft receivers with both horizontal and vertical electronic course guidance to the runway. The ILS equipment is comprised of an end-fire glideslope antenna (vertical course guidance) located on the eastside of Runway 21L, and a localizer antenna (horizontal course guidance) located directly off the end of Runway 3R. The current published approach minimums provide guidance to 1,334 feet MSL (400 feet Above Ground Level (AGL)) and 7/8 statute mile visibility.

Area Navigation (RNAV) and Global Positioning System (GPS)

RNAV non-precision approaches utilize GPS technology for horizontal course guidance. GPS is a spacebased navigation system comprised of satellites, transmitting stations, and user receivers. An aircraft receiver can track the position of the aircraft by calculating and comparing the signal distance from several satellites. Aviation GPS equipment often depicts position and area information, such as airspace and terrain, on a moving map display in the cockpit. Because no ground facilities are required at airports to operate this navigational system, the system is reliable in all weather conditions and all terrain and is typically accurate to within 100 feet.

Wide Area Augmentation System (WAAS) is a GPS-based navigation system, which augments the existing GPS signals with additional information, providing the user highly accurate position and tracking information. Localizer Precision with Vertical Guidance (LPV) instrument approaches utilize WAAS technology to provide both vertical and horizontal course guidance to aircraft receivers. Like RNAV GPS navigation, LPV and other future WAAS approaches are available in all weather and all terrain conditions.

Runway 21L has two RNAV/GPS approaches. The 21L RNAV (GPS) Y instrument approach provides guidance down to 1,461 feet MSL (500 feet AGL) and 1-1/4 statute mile visibility. The 21L RNAV (RNP) Z instrument approach provides guidance down to 1,502 feet MSL (600 feet AGL) and 1 3/8 statute mile visibility. Runway 3R is not WAAS capable and has an RNAV approach with 1,334 feet MSL (400 feet AGL) and 1 statute mile visibility minimums.

There are no GPS LPV approaches at PDK.

Runway 3L-21R and Runway 16-34 solely provide visual approach capabilities.

Very High Frequency Omni-directional Range (VOR)

VORs are ground based navigation stations which emit both a steady 360° signal, as well as a rotating 360° signal. These signals are compared by the aircraft receiver to determine aircraft position, and course information is transmitted to the cockpit instruments.

At PDK, a VOR/Distance Measuring Equipment (DME) non-precision approach to the airport is based on the Peachtree VOR (identifier PDK), located on the eastside of Runway 21L end. This approach provides guidance down to 1,600 feet MSL (700 feet AGL) and one statute mile visibility. The approach is a circling approach, meaning it does not provide a straight-in approach to a specific runway end, rather, it brings



an aircraft to the airport from the east and the aircraft must circle to a runway once visual contact is established.

As stated in Federal Register /Vol. 81, No. 143 issued July 26, 2016, the PDK VOR is listed as a candidate for discontinuance in FAA Fiscal Years (FY) 2021-2025. Recent correspondence with the FAA indicates that the VOR will likely be decommissioned in 2022. A RNAV A procedure is proposed by FAA to serve as an overlay replacement to the VOR procedure upon its cancellation.

Table 2-1 summarizes the Instrument Approach Procedures at PDK and the lowest descent minimums and lowest visibility minimums for each approach. Descent and visibility minimums will vary based on the technical requirements of each approach.

Runway Ends Served		Lowest Descent Minimums (Lowest AGL and Visibility)		
Approach Type	21L	3R	21L	3R
ILS or LOC	•		ILS: 400 ft & 7/8 sm	
			LOC: 500 ft & ¾ sm	
			CIR: 600 ft &1 sm	
RNAV (RNP)		•		RNP.10: 400 ft &
				1 sm
				RNP.30: 500 ft &
				1 3/8 sm
RNAV (RNP) Z	•		RNP.30: 600 ft & 1 3/8	
			sm	
RNAV (GPS) Y	•		LNAV/VNAV: 500ft & 1 ¼	
			sm	
			LNAV: 600 ft & ¾ sm	
			CIR: 600 ft & 1 sm	
VOR	Circling Only	Circling Only	700 ft &1 sm CIR	700 ft & 1 sm
				CIR
Source: FAA instrument procedures published for use from 31 January 2019 to 28 February 2019.				

Table 2-1: Instrument Approaches

2.3.5 Airfield Visual Aids

Visual aids at an airport provide additional information for identification and safe operation. Shown in **Figure 2-3**, PDK is equipped with a rotating beacon, a wind cone, and precision approach path indicators (PAPIs) for visual cues of airport conditions.

Rotating Beacon

A rotating beacon is located west of Runway 3R-21L. High intensity lamps mounted on an assembly rotate 360° every six seconds, giving the illusion of emitting flashes of light. The designation for PDK, a civilian land airport, is alternating green and white lights in equal duration. The rotating beacon is operational



from sunset to sunrise and during Instrument Meteorological Conditions (IMC). Currently PDK is evaluating upgrades to the existing beacon.

Wind Cone

A lighted wind cone is located just north of Taxiway D and east of Runway 21R. It provides visual surface wind information to pilots. Since the airport has an ATCT, the wind cone does not have a segmented circle to indicate airport traffic pattern. Supplemental wind cones are found near the touchdown points of Runway 3L, 21R and on top of a helicopter hangar near Helipad Charlie.

Precision Approach Path Indicators (PAPIs)

Runway 16-34 is equipped with four-box PAPIs located on the left side of each runway threshold. Runway 3L-21R has two-box PAPIs. Runway 3R-21L has a four-box PAPI on the left and two-box PAPI on the left. These landing aids help pilots to visually establish their aircraft on the proper approach glide path for landing by emitting a row of red and white lights that indicate when the aircraft is vertically aligned properly with the runway. A four-box PAPI system emits three to four white lights if the aircraft is higher than the glide path and three to four red lights if the aircraft is lower than the proper glide path, indicating to the pilot an adjustment of altitude is needed. The Airport is evaluating upgrades to the existing PAPI system.

2.3.6 Weather Reporting Facilities

The airport is equipped with an Automated Surface Observing System (ASOS) weather reporting system, located east of Runway 3R-21L near the rotating beacon. The ASOS is a modern weather collection and reporting system which measures the following meteorological conditions:

- Wind velocity and direction,
- Temperature and dewpoint,
- Visibility,
- Cloud cover and sky conditions,
- Barometric pressure, and
- Prevalent weather conditions (fog, thunderstorms, rain).

The ASOS equipment gathers meteorological data every minute and automatically transcribes current conditions via a designated radio frequency. The conditions are also available via telephone and aviation weather websites.



Figure 2-3: NAVAIDs

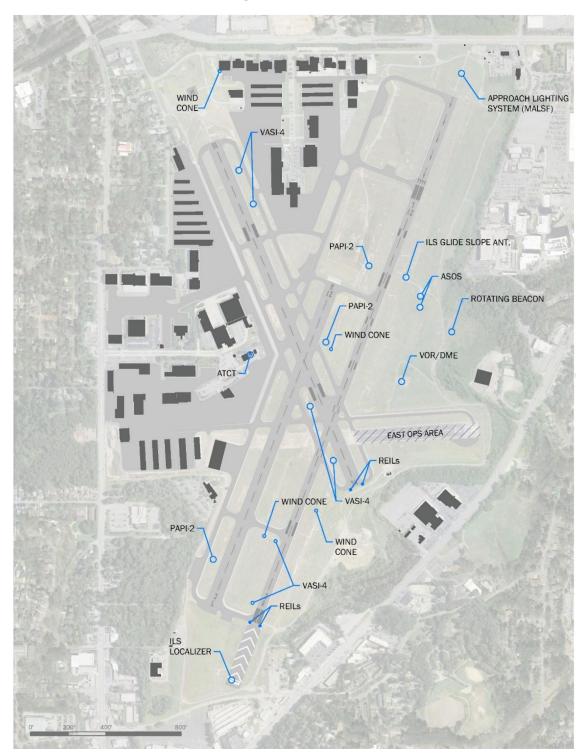




 Table 2-2, provides a summary of existing airside facilities.



Table 2-2: Summary of Existing Airside Facilities

Item			Existing Condition		
Airport Role	FAA - GA/National GASP - Level III				
Airport Elevation		988 ft			
Airport Property	745 ac				
Max Mean Temp. of Hottest Month	89.4° F (July)				
Airport Reference Point	33-52-32.2 N, 84-18-07.1 W				
Magnetic Declination	5° 14' W changing by 0° 3' W per year (2019)				
Instrument Approach Procedures	ILS; LOC; RNAV; GPS; VOR-DME				
Weather Reporting	ASOS				
	Runway 3R-21L	Runway 3L-21R	Runway 16-34	Helipad Charlie	
Runway Length	6,001 ft	3,746 ft	3,967 ft	n/a	
Runway Width	100 ft	150 ft	150 ft	56 x 56 ft	
Pavement Type	Concrete - Grooved	Asphalt	Asphalt	Concrete	
Strength	SW - 46,000 lbs DW- 75,000 lbs	SW - 20,000 lbs	SW - 20,000 lbs	n/a	
Effective Gradient	0.20%	0.40%	0.20%	n/a	
Lighting	HIRL	MIRL	MIRL	PERI	
Marking	Precision	Basic	Basic	Standard	
Taxiway Pavement Type	Asphalt and Concrete				
Taxiway Width	40-50 ft				
Taxiway Lighting		М	ITL		
Source: Michael Baker International, 2019.					

Max. Mean Temperature of the hottest month determined from the 1981-2010 U.S. Climate Normal station USW00053863



2.4 General Aviation Facilities

Landside facilities are the based facilities that support the travelers, pilots, and aircraft handling functions. Facilities include the administration building, fixed base operators (FBOs), aircraft maintenance, aircraft hangars, aircraft fueling facilities, aircraft apron parking, vehicle parking and emergency services. These facilities and businesses support and provide services for aircraft operators at the airport. Landside facilities at PDK are shown in **Figure 2-4**.

2.4.1 Airport Businesses

PDK is home to over 25 prominent businesses including aeronautical and non-aeronautical organizations. Businesses include Atlantic Aviation, Epps Air Service and Signature Flight Support, Hertz and Enterprise car rental, Pilot Stuff Supplies and Accessories, a provider of aviation supplies; Hertz, car rental facility; and Angel Flight, a group of volunteer pilots that provide medical related flights to patients.

There are ten flight schools and one helicopter flight school currently based at PDK. All flight schools offer a comprehensive flight training programs for career and recreational pilots.

DeKalb County

DeKalb County Airport Division provides airport operational and management supervision of the airport facility and is responsible for overall maintenance of PDK grounds as well as leasing tiedowns, aircraft hangar rentals, and land lease-holds throughout the property. Several county T-hangar buildings and tiedowns are found on the north, northwest, and west side of the airfield.

2.4.2 Fixed Based Operation (FBO) and Fuel Storage

A full range of services are available at PDK. This includes aircraft fueling, flight training, aircraft maintenance, aircraft storage, and many other services. The airport is served by three full-service FBOs, Atlantic Aviation, Epps Aviation and Signature Flight Support. The airport also has one partial service FBO which is PDK Self-Serve Avgas.

Atlantic Aviation

Atlantic Aviation is a full-service FBO that provides a variety of general aviation services. Atlantic Aviation is located on the west side of Runway 3L-21R adjacent to the ATCT. At the time of this study, Atlantic Aviation is currently in the process of demolishing two of their conventional hangars and terminal building and constructing a new 17,097 square-foot terminal in its place. Aside from their new terminal building, Atlantic Aviation operates out of approximately 61,681 square-foot facility spread over five hangar buildings that provides offices, aircraft space, pilot lounge, and type I deicing services located southwest portion of the airport. Atlantic Aviation provides full-service Jet A and Avgas fuel.

Epps Aviation

Epps Aviation is the first full-service host FBO to service PDK since 1965. It operates out of the northwest portion of the airport adjoining the Administration Building where they service their main customers out of an approximate 51,122 square-feet of office and hangar building. Epps Aviation maintains four corporate hangars, an executive hangar, three T-hangars, and a maintenance hangar engrossing approximately 178,795 square-feet. In 1996, Epps Aviation became an authorized sales and services



provider for Pilatus aircrafts marketing to U.S. Southeast and Canada. The company serves full-service Jet A and Avgas fuel 24 hours per day.

Signature Flight Support

Signature Flight Support is the third full-service FBO housed at PDK and is located north on the airfield between Runway 16-34 and Runway 3L-21R. Signature's services and amenities include conference rooms, passenger lounge, flight planning, aircraft maintenance, aircraft charter, deicing, fuel and more. Signature encompasses 87,650 square-feet of hangar and office space and subleases 94,000 square-feet of ramp.

2.4.3 Airport Administration

The airport administration office is located on Airport Road near the ATCT. These facilities include the Airport Director's Office, Security Office, Noise Information Office, and conference rooms. The Administration Building also houses several businesses including flight schools, Bird Bath, Angel Flight of Georgia, and an airport restaurant, The Downwind.

2.4.4 Airport Maintenance

The PDK airport maintenance building is in the southwest corner of airport property perpendicular to Runway 3L. The area includes a building and maintenance area to store maintenance supplies, equipment, and vehicles. The maintenance building was construction in 2001 and includes 16,087 square feet of floor space.

2.4.5 Emergency Services

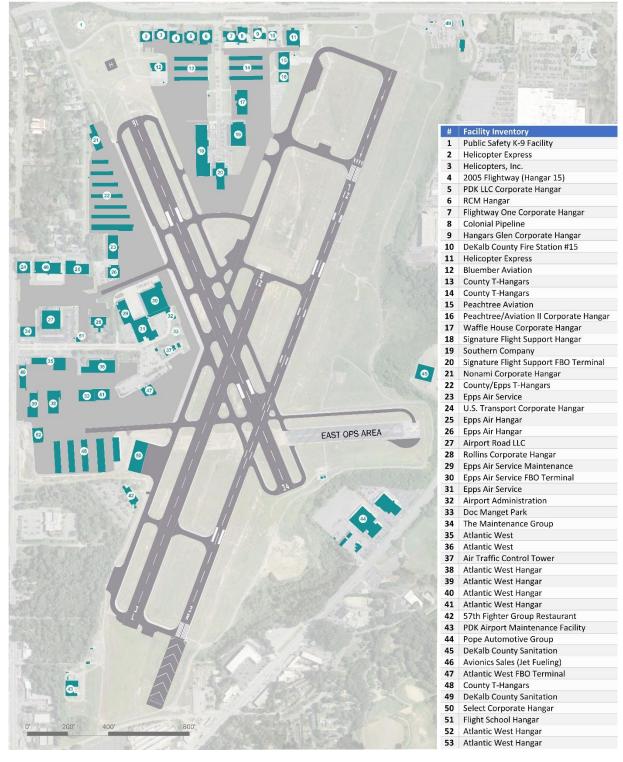
DeKalb County Fire-Rescue Services, identified as Station 15, is located within the north portion of Airport property on Flightway Drive. Since PDK is not a FAR Part 139 certified airport (i.e., air carrier), a dedicated Airport Rescue and Fire Fighting (ARFF) station is not required but PDK benefits greatly from the location of the station at the airport. Station 15 not only provides fire and rescue services at PDK but to the surrounding community as well.

Today, Station 15 houses the office of the Battalion Chief; Engine 15, a structural fire response truck and a Rosenbauer Panther 4X4 Aircraft Rescue and Firefighting (ARFF) fire truck. The all-terrain ARFF truck carries 1,500 gallons of water which is mixed with Aqueous Film Form Foam (AFFF) fired from bumper and roof turrets. Also, the ARFF truck carries 500 pounds of what is called Purple "K" or "PK" which is a dry chemical that smothers an aircraft fire similar to AFFF.

Station 15's direct access to PDK's ramps allows quick access to the airfield in the event of airport emergencies.



Figure 2-4: Facility Inventory



Source: Michael Baker International, 2018.



2.4.6 Aprons

General aviation aprons also known as ramps, provide a location for based aircraft storage, loading and unloading passengers, FBO operations, and itinerant aircraft storage. Because aprons endure a variety of activity, they should be designed to allow for a changing mix of transient and parked aircraft. A few key elements that effect apron design include ground equipment access, aircraft circulation and characteristics, safety, obstruction and visual clearance.

There are five aircraft apron areas at PDK shown in **Figure 2-5**, located in the northern and western regions of the airport. Together, these ramps consist of 364,166 square yards of allowable space for aircraft circulation and storage.

West Ramp

The West Ramp is located immediately south of the ATCT. The apron is approximately 135,775 square yards of paved surface. It is leased to and operated by Atlantic Aviation, one of the airport's FBOs, to store itinerant and based aircraft.

Clairmont Ramp

Clairmont Ramp is located at the corner of Airport Road and Clairmont Road near the main entrance of the airport. This apron is about 31,729 square yards in size and is used for aircraft tie-downs that accommodate a variety of aircraft sizes.

Northwest Ramp

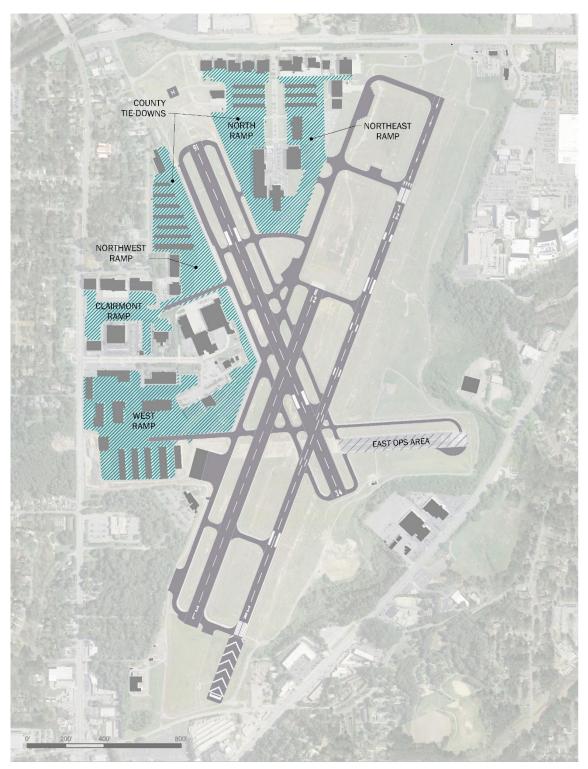
The Northwest Ramp is located immediately north of the ATCT. The ramp area adjacent to the Airport Administration Building is used exclusively Epps Aviation. This apron space, measuring 79,617.5 square yards, services large-to-medium size jets and small aircrafts. The northern portion of the Northwest ramp provides aircraft parking for based aircrafts leased from DeKalb County.

North and Northeast Ramps

Collectively, the North and Northeast Ramp are located north on within Airport property and together total 117,043 square yards. They are used for tiedown spaces, aircraft maneuvering and transient aircraft parking. There is approximately 57 tiedown spaces in this combined ramp area. Signature Flight Support, which is the third FBO housed at PDK, leases the ramp area adjacent to Taxiway H while DeKalb County T-hangars and tie-down sit north of Signature Flight Support.







Source: Michael Baker International, 2018.



2.4.7 Auto Parking

There are several vehicular parking lots available at PDK. The two public parking lots are located adjacent to the Administration Building and ATCT, both individual lots consisting of 71 spaces, totaling 142 spaces.

2.4.8 Airport Access

Regional access to PDK is provided from Interstate 85 approximately two miles east of PDK and Interstate 285 Interchange approximately three miles northeast of PDK which intersects with Interstate 85 northeast of PDK. PDK is bordered by Clairmont Road to the west; Dresden Drive NE to the south, Buford Highway NE to the east and Chamblee-Tucker Road along the northern side of the airport. New Peachtree Road connects Clairmont Road and Chamblee-Tucker Road northwest of PDK. The Metropolitan Atlanta Rapid Transit Authority (MARTA) station sits at the intersection of Peachtree Road and Chamblee-Tucker Road.

There are two primary vehicular access points to PDK. The main entrance is at Clairmont Road and Airport Road which navigates to the Administration Building. Corsair Drive runs from Flightway Drive and anchors where Signature Flight Support FBO is located.

2.4.9 Airport Utilities

The availability and capacity of the utilities serving the airport are factors to determining the development potential of the airport, as well as the land immediately adjacent to the facility. Utility availability is critical especially when considering future airport expansion abilities for both landside and airside.

The airport utilities include electrical, natural gas, water and sewer, and telephone service. Georgia Power provides electrical power for the airport. DeKalb County Watershed provides water, sewer and wastewater management to the airport. Atlanta Gas Light provides natural gas service and AT&T provides telephone services.

Access to utilities are readily available in the existing general aviation terminal areas.

2.4.10 Airport Waste and Recycling Facilities

Airport waste management and recycling facilities are provided by DeKalb County Watershed.

2.5 Airspace and Air Traffic Control

The FAA is responsible for the control and use of navigable airspace within the United States. The FAA has established the National Airspace System (NAS) in efforts to protect persons and property on the ground and to establish a safe and efficient airspace environment for civil, commercial, and military aviation. The NAS is made up of a network of air navigation facilities, Air Traffic Control (ATC) facilities, airports, technology, and appropriate rules and regulations that are needed to operate the system.

Airspace is broken down into two categories: regulatory and non-regulatory. Within the regulatory airspace category, there are two types of airspace: controlled and uncontrolled. Categories and types of airspace are defined based on their complexity or density of aircraft movement, or the nature of the operation conducted within the airspace, which dictates the level of safety required and the level of national and public interest.



The purpose of controlled airspace is to provide adequate separation between IFR and VFR aircraft, thus, IFR services are available, but not required, within all controlled airspace.

DeKalb Peachtree Airport resides inside a complicated metropolitan airspace environment as shown on **Figure 2-6**. Immediately within the vicinity of PDK are several airports, including Gwinnett County Airport (LZU) east of the PDK near Lawrenceville; Dobbins Air Reserve Base/Naval Air Station (MGE) and Cobb County Airport (RYY) both northwest of PDK in Marietta; and Fulton County Airport (RYY) west of PDK near Mableton. Excluding MGE, each of these airports serves as a general aviation reliever for ATL, located south of PDK near College Park. ATL, being the world's busiest airport, is enclosed within Class B airspace. The structure of this airspace resembles an upside-down wedding cake and is tailored to meet ATL's requirements. At the center, the airspace structure extends from the surface to 12,500' MSL. Further from the center, the floor of the airspace begins at progressively higher levels ranging from 2,500' MSL up to 10,000' MSL. Class B airspace stipulates certain operating rules and pilot/equipment requirements.

In the vicinity of PDK, ATL's Class B airspace begins at 5,000' MSL in the south quadrant, 6,000' MSL in the east quadrant and 7,000 ft in the west and north quadrants. Because PDK has an air traffic control tower, Class D airspace, centered on PDK, extends from the surface to 3,500' MSL. Class D airspace has specific operating rules and equipment requirements. The radius of PDK's airspace is approximately 5 statute miles. During the hours PDK's air traffic control tower is closed, the airspace at PDK and its vicinity changes to a combination of Class E and G airspace. Class E airspace at PDK during those periods begins at 700' AGL with Class G airspace underlying it. More detailed information regarding classes of airspace and their use may be found in the FAA publication *Aeronautical Information Manual, Chapter 3 - Airspace*.

Air traffic control requirements generally specify aircraft departing or arriving at PDK must establish twoway communications with PDK ATCT during the hours of the facility's operation. Furthermore, if the aircraft is flying Instrument Flight Rules (IFR), the pilot will also communicate with Atlanta Terminal Radar Approach Control (TRACON) enroute to or from the airport.

Tower controllers issue a variety of instructions to pilots, including specifying entry navigation into the air traffic landing pattern, to departure instructions toward an intended route of flight. With respect to IFR departures, PDK ATCT will typically assign a specific runway, heading, and altitude for the aircraft to follow until the ATC services for that aircraft are transferred to Atlanta TRACON. Atlanta TRACON then vectors the aircraft to its enroute segment of flight.

PDK ATCT operates from 6:30 a.m. to 11:00 p.m. Monday to Friday and from 7:00 a.m. to 11:00 p.m. on Saturday and Sunday, local time. During the hours PDK ATCT is closed, the pilot intending to fly IFR will either receive clearance from Atlanta TRACON on the ground prior to take-off, or in the air upon taking off flying VFR. The specific departure procedures given by PDK ATCT and Atlanta TRACON for departing IFR aircraft are related to the Standard Operating Procedures signed between the two entities.

In addition to airspace classifications and ATC responsibility, a notable airspace feature is the presence of tall towers south of the airport. The tallest towers are found south of the intersection of Interstate 85 and Highway 400 in areas commonly referred to as Druid Hills, Northwest Decatur, and East Atlanta neighborhoods. The tallest towers stand 2,049' MSL and are greater than 1,100' AGL.



To the south, under IFR, ATC has responsibility for traffic deconfliction and obstruction avoidance, and therefore will normally turn aircraft expeditiously to avoid both the tall obstructions and traffic flow related to ATL. Under Visual Flight Rules (VFR), the pilot is responsible for maintaining separation from other aircraft and to remain clear of obstructions.

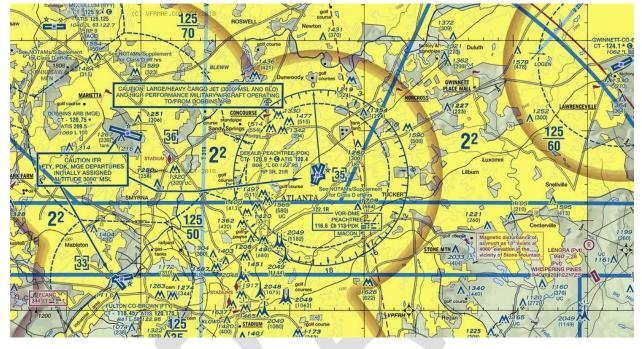


Figure 2-6: Airport Airspace

Source: FAA Air Traffic, Atlanta Sectional Chart, 2018

2.6 Domestic and International Arrivals and Destination

Table 2-3 and

Table 2-4 lists while Figure 2-7: Top 25 Flight Plan Arrival Airports (2017)**Figure 2-7** and **Figure 2-8** displays the top 25 arrival and destination markets flown to and from PDK in 2017. Based on the top 25 arrival and destination cities, Birmingham-Shuttlesworth International (AL), McKinnon St. Simons Island (GA), and Teterboro (NJ/NYC) account for the top three markets; making up approximately 25% of arrival and departure flight plans generated. With the exception of St. Louis, majority of the top 25 domestic flights generated from or arriving to PDK are east of the Mississippi River with the bulk deriving within 250 nautical miles of the Airport. Although the occurrences are low, the Airport also serves the international flight plan arrival and destination records, the top three international markets include Bahamas, Canada and Turks And Caicos Islands. International flights originating from PDK typically serves a more extensive market than those arriving at the Airport. Based on **Figure 2-10** flight range can stretch as far as 4,000 nautical miles to Europe.



Table 2-3: Top 25 Flight Plan Arrival Airports (2017)

Rank	Airports	State	Flight Plans
1	BIRMINGHAM-SHUTTLESWORTH INTL	AL	667
2	MCKINNON ST SIMONS ISLAND	GA	667
3	TETERBORO	NJ	643
4	SAVANNAH/HILTON HEAD INTL	GA	531
5	DEKALB-PEACHTREE	GA	442
6	CHARLOTTE/DOUGLAS INTL	NC	363
7	NASHVILLE INTL	TN	327
8	NORTHWEST FLORIDA BEACHES INTL	FL	311
9	PALM BEACH INTL	FL	296
10	CHARLESTON AFB/INTL	SC	277
11	CINCINNATI MUNI AIRPORT LUNKEN FIELD	OH	259
12	HUNTSVILLE EXECUTIVE AIRPORT TOM SHARP JR	AL	243
13	SPIRIT OF ST LOUIS	MO	224
14	RALEIGH-DURHAM INTL	NC	221
15	MC GHEE TYSON	TN	211
16	NAPLES MUNI	FL	209
17	HILTON HEAD	SC	208
18	WASHINGTON DULLES INTL	VA	192
19	EXECUTIVE	FL	188
20	ASHEVILLE RGNL	NC	186
21	GWINNETT COUNTY - BRISCOE FIELD	GA	183
22	GAINESVILLE RGNL	FL	180
23	OPA-LOCKA EXECUTIVE	FL	179
24	DESTIN EXECUTIVE	FL	176
25	LOVELL FIELD	TN	175
Source: Mi	chael Baker International, 2019		

Table 2-4: Top 25 Flight Plan Destination Airports (2017)

Rank	Airports	State	Flight Plans
1	BIRMINGHAM-SHUTTLESWORTH INTL	AL	653
2	MCKINNON ST SIMONS ISLAND	GA	649
3	TETERBORO	NJ	630
4	SAVANNAH/HILTON HEAD INTL	GA	518
5	DEKALB-PEACHTREE	GA	442
6	NASHVILLE INTL	TN	343
7	NORTHWEST FLORIDA BEACHES INTL	FL	334
8	CHARLOTTE/DOUGLAS INTL	NC	333
9	CINCINNATI MUNI AIRPORT LUNKEN FIELD	OH	288
10	CHARLESTON AFB/INTL	SC	277
11	PALM BEACH INTL	FL	274
12	GAINESVILLE RGNL	FL	253
13	RALEIGH-DURHAM INTL	NC	238
14	EXECUTIVE	FL	236
15	MC GHEE TYSON	TN	229
16	HILTON HEAD	SC	213
17	GWINNETT COUNTY - BRISCOE FIELD	GA	207
18	ASHEVILLE RGNL	NC	199
19	ORLANDO INTL	FL	193
20	DESTIN EXECUTIVE	FL	187
21	NAPLES MUNI	FL	179
22	WASHINGTON DULLES INTL	VA	178
23	OPA-LOCKA EXECUTIVE	FL	177
24	LOVELL FIELD	TN	175
25	CHARLESTON EXECUTIVE	SC	174
Source: Michael Baker International, 2019			



Figure 2-7: Top 25 Flight Plan Arrival Airports (2017)

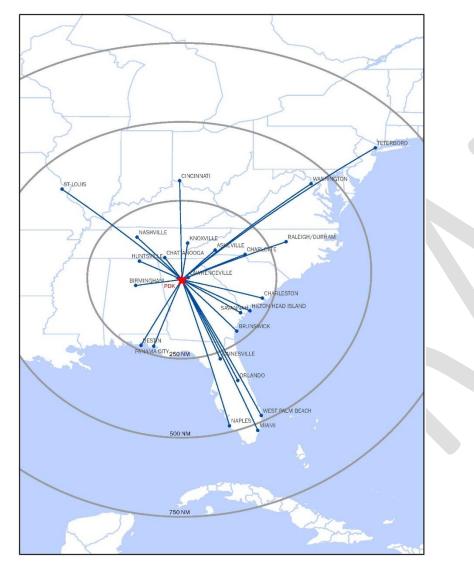


Figure 2-8: Top 25 Flight Plan Destination Airports (2017)

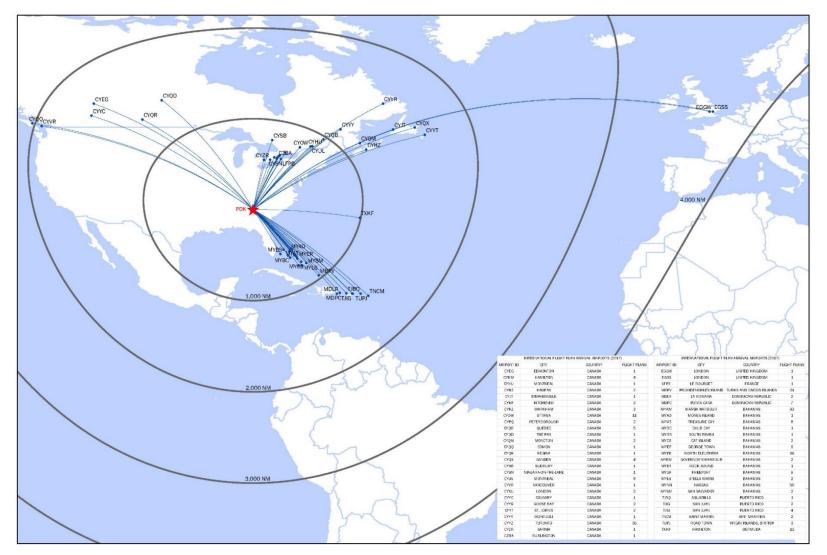


Source: Michael Baker International, 2019

Source: Michael Baker International, 2019



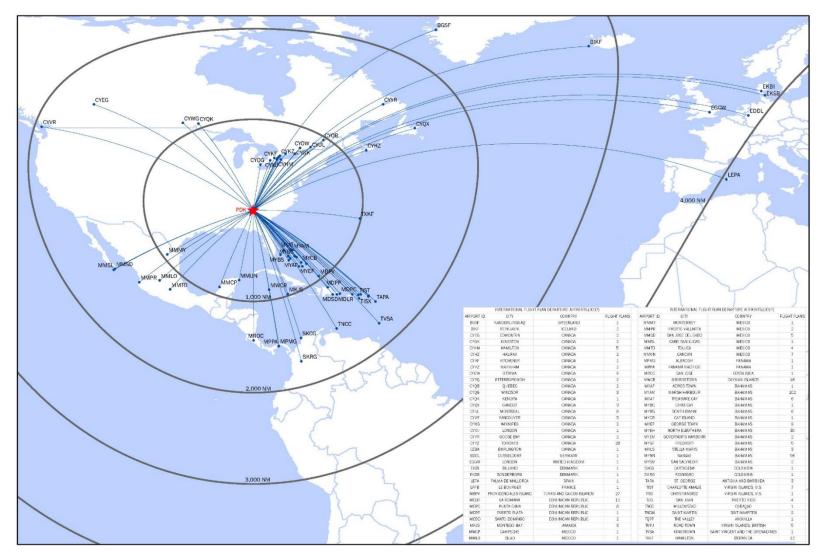




Source: Michael Baker International, 2019







'Source: Michael Baker International, 2019



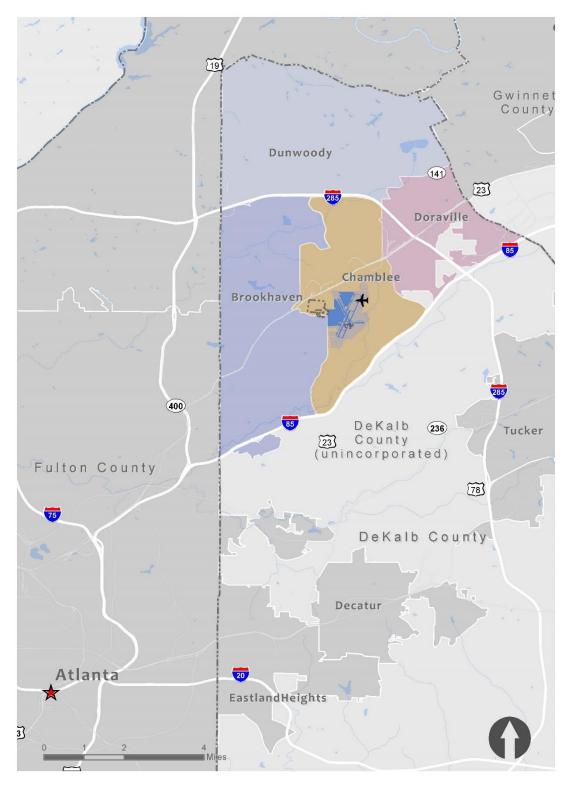
2.7 Zoning and Municipal Boundaries

Municipal Boundaries

PDK is located within I-285 (Perimeter) in the city limits of Chamblee in DeKalb County approximately 10 miles from downtown Atlanta. Located in Northern DeKalb County, the city of Chamblee is adjacent to Dunwoody to the north, Doraville to the northeast and Brookhaven to the west. In efforts to boost a probusiness environment and develop influential solutions to the local region's economy city leaders from the four municipalities has established a multi-city public-private planning organization titled the Peachtree Gateway Partnership (PGP) in 2016. PDK's municipal boundaries are depicted in **Figure 2-11**.







Source: Michael Baker International, 2018.



Zoning

As part of grant assurances to the FAA, the airport is required, to the extent reasonable, to adopt zoning laws and restrict the use of land adjacent to or in the immediate vicinity of the airport to activities and purposes compatible with normal airport operations, including landing and takeoff of aircraft.

Existing zoning adjacent to the airport property varies from residential to light industrial. Zoning north of the airport property consists of multi-family residential and commercial properties. Zoning to the east of the airport property consists of light industrial, heavy commercial, single-family residential, and multi-family residential. The southern and western boundaries of the airport property are adjacent to heavy commercial properties.

Height Zoning

Federal Aviation Regulation (FAR) Part 77, *Objects Affecting Navigable Airspace*, establishes standards and notification requirements for objects affecting navigable airspace. Part 77 establishes the standards for "imaginary" surfaces in relation to the airport and to each runway. The size of each surface is based on the type of approach available or planned for that runway.

DeKalb County Code of Ordinances Section 6-219 establishes the "Zones." This ordinance protects the airport's Part 77 imaginary surfaces by defining the surfaces and establishing the procedures for removal or marking of objects that penetrate the surfaces, and the penalties associated with the violation of the surfaces. Additionally, the ordinance identifies land uses and zoning designations that are compatible within the airport operations areas. A copy of the ordinance is provided in **Appendix A**.

The City of Chamblee has a Runway Protection Zone (RPZ) overlay district codified in Section 220-1 of their municipal code. This ordinance protects the airport's RPZ and identifies compatible land uses within the airport the RPZ boundary. A copy of the ordinance is provided in **Appendix B**.



2.8 Environmental Considerations

The protection and preservation of the local environment are essential concerns for the master planning process. The final section of this chapter provides a review of environmental sensitivities that could factor into recommendations of future improvements at PDK. For any project that includes a federal action, the project must be reviewed for environmental considerations in accordance with the National Environmental Policy Act (NEPA). This overview follows the guidelines of FAA Orders 1050.1F and 5050.4B, and reviews the following environmental factors:

- Air Quality,
- Biological Resources,
- Climate,
- Coastal Resources,
- Department of Transportation Act, Section 4(f),
- Farmlands,
- Hazardous Materials, Solid Waste, and Storm Water Pollution Prevention Plan (SWPPP),
- Historical, Architectural, Archaeological, and Cultural Resources,
- Natural Resources and Energy Supply,
- Noise and Compatible Land Use,
- Socioeconomics, Environmental Justice, and Children's Environmental Health and Safety Risks,
- Visual Effects (including light emissions), and
- Water Resources (including floodplains, wetlands, groundwater, surface waters and rivers).

Available information about the existing environmental conditions at PDK has been derived from current and former field investigations. These field investigations were undertaken to evaluate the presence/absence of various environmental resources near a project being proposed at the time of the survey. This environmental overview provides a more general description of the environmental constraints located on and adjacent to the airport property. Further analysis of these considerations will be presented in later sections of the master plan.

2.8.1 Air Quality (g)

The oversight of air quality conditions at PDK is the responsibility of the U.S. Environmental Protection Agency (EPA), the Georgia Department of Natural Resources – Environmental Protection Division (GDNR-EPD), and the Capital Region Planning Commission (CRPC) under the federal Clean Air Act (CAA). The U.S. EPA establishes, enforces, and periodically reviews the National Ambient Air Quality Standards (NAAQS) and approves State Implementation Plans (SIPs) that will demonstrate compliance with the NAAQS.

Each future project at the Airport must be evaluated for its potential to result in increased emissions of six common air pollutants. Specifically, each project must be evaluated for its potential to result in increased air emissions from both a project construction standpoint and an airport operations standpoint. If the project is determined to be below the de minimis thresholds established for each of the six criteria pollutants, then no mitigation is necessary. However, if it is determined that implementation of the project would result in increased air emissions that exceed the de minimis thresholds, then mitigation measures must be considered to ensure that the project is in compliance with the CAA.



2.8.2 Biological Resources

Plant Communities

For each of the future planned projects at the Airport described in this master plan the Proposed Action must be evaluated for its potential to result in adverse impacts to the existing plant communities, local wildlife, and fish communities. The Airport property encompasses an area of approximately 745 acres. The airport property includes four main habitat types: developed lands (including all runways, taxiways, aprons, structures, and parking lots), mowed/maintained habitat, scrub/shrub habitat, and mixed pine-hardwood forest habitat shown in **Figure 2-12**.

The general aviation areas located along the western boundary contains the largest amount of developed lands on the property. This portion of the property contains an extensive network of aprons, vehicular parking lots, several T-hangars, various sized corporate hangars, administrative buildings, an ATCT and several offices of aviation-related businesses. The northern portion of the property also contains a large area of developed lands. This area contains large aircraft aprons, six T-hangars, several corporate hangars of various sizes, and office buildings for several aviation-related businesses.

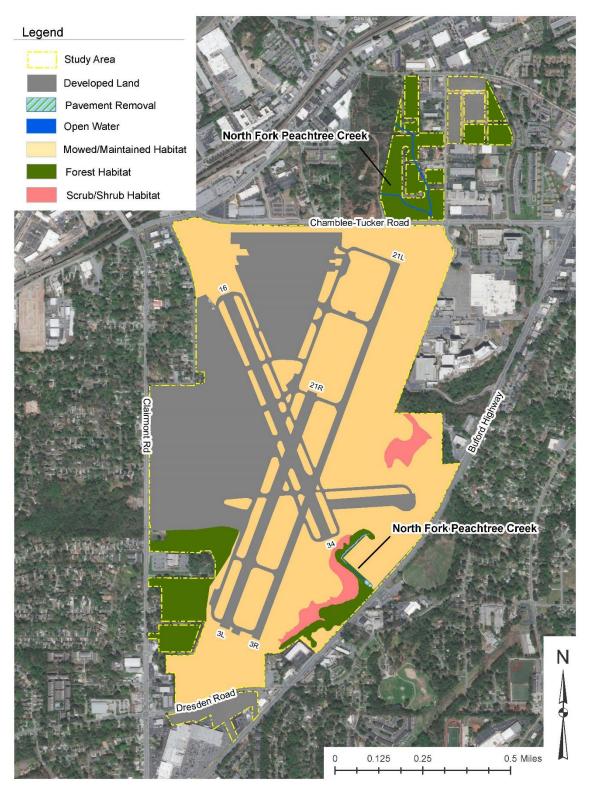
In between the paved surfaces, the airfield consists of mowed/maintained habitat. This habitat type consists mostly of emergent grass communities including non-woody, herbaceous species. The airfield is mowed on a consistent basis to prevent woody vegetation from becoming established and resulting in the creation of air navigation obstructions. This habitat is also maintained in order to reduce the attraction of these areas to wildlife species that prefer habitats that contain thick, tall grassy meadows.

Along the northeast boundary of the property, north of Chamblee-Tucker Road, there is an undeveloped parcel owned by the Airport that consists of pine-hardwood forest and developed habitats. This area also contains an intermittent stream resource, an unnamed tributary to North Fork Peachtree Creek. The eastern boundary of the airport property consists mostly of mowed/maintained habitat and scrub/shrub habitats east of the perimeter access road. Two segments of North Fork Peachtree Creek are located on existing Airport property. The first segment is approximately 2,400 feet long and it is located within the undeveloped parcel north of Chamblee-Tucker Road. The second segment meanders onto the Airport property just south of the CDC building. Approximately 1,100 linear feet of this segment is located on the property before the resource flows towards the southeast and underneath Buford Highway where it leaves the Airport property.

The southwest portion of the Airport property consists of mostly mowed/maintained and scrub/shrub habitats; however, there is some mixed pine hardwood-forest habitat located adjacent to Buford Highway and along both sides of Bragg Street. There is an intermittent stream located along the north side of the rear gate access road (see **Figure 2-12**). The southern portion of the Airport property consists of mowed/maintained habitat located within the Runway Protection Zone (RPZ) at the Runway 3L End. Additional mixed pine-hardwood forest habitat was identified within the southwest portion of the airport property.



Figure 2-12: Habitats



Michael Baker International, 2018.



Fish Communities

There is only one water body, a tributary to North Fork Peachtree Creek, located on the airport property that supports fish communities. Approximately 1,100 feet of this perennial stream are located within the current boundary of the airport property. This segment of the stream is located just south of the CDC building and flows southeast underneath Buford Highway where it exits the airport property. Therefore, any future projects that would result in culverting or piping any segment of this resource would require fish passage consideration, which would likely require that the structure to be installed be buried approximately 20 percent in order to allow fish to easily pass through the structure.

2.8.3 Wildlife

Federally Protected Species

Section 7 of the Endangered Species Act of 1973 (ESA) requires federal agencies to ensure that any action authorized, funded, or carried out by them is not likely to jeopardize the continued existence of listed species or modify their critical habitat.¹ In accordance with Section 7 of the ESA, county listings of federally and state-protected species were reviewed via the Information for Planning and Consultation (IPaC) maintained by the USFWS and the Georgia Rare Species and Natural Community database maintained by the GADNR-WRD to determine the potential for federally protected species being located on the airport property. According to the data provided by the USFWS and the GADNR-WRD, DeKalb County is located within the potential range of the following federally threatened vegetations:

- Pool sprite (*Amphianthus pusillus*),
- Michaux's sumac (Rhus michauxii),
- Black-spored quillwort (Isoetes melanospora).

Based on the results found from the Ecological field surveys, it has been determined that there is no suitable habitat for federally protected species located on the DeKalb-Peachtree Airport property. Therefore, future projects are the airport would not have the potential to result in adverse impacts to federally protected species.

Critical Habitat

The USFWS Critical Habitat Portal confirmed that there is no critical habitat for federally protected species located in DeKalb County, GA. Therefore, future projects at the airport would not have the potential to adversely affect critical habitat.

Migratory Birds

The Migratory Bird Treaty Act (MBTA) requires that federal agencies identify any areas potentially used by birds protected under the MBTA and characterize these areas along with their significance to migratory birds. The USFWS's IPaC database lists eleven 11 migratory birds of concern potentially occurring within DeKalb County shown in **Table 2-5**. There is no suitable habitat for the King Rail located on the airport property, as there is no marsh habitat present. There is no suitable habitat for the blue-winged warbler, cerulean warbler, eastern whip-poor-will, or red-headed woodpecker located within the project study

¹ USFWS (May 2010). Digest of Federal Resource Laws of Interest to the U.S. Fish and Wildlife Service – ESA. Accessed on 10/1/2018: <u>https://www.fws.gov/international/laws-treaties-agreements/us-conservation-laws/endangered-species-act.html</u>.



area, as the forested habitats that these birds prefer typically include an open understory. The forested areas identified on the airport property consist of a dense understory of shrubs and woody vines.

The scrub/shrub habitats located on the airport property provides suitable habitat for the prairie warbler, while the forested habitats provide suitable habitat for the Kentucky warbler, prothonotary warbler, and wood thrush.

Name	Scientific Name	PDK	DeKalb County
Bald-eagle	Haliaeetus Leucocephalus		•
Blue-winged Warbler	Vermivora Pinus		•
Cerulean Warbler	Dendroica Cerulea		٠
Eastern Whip-poor-will	Antrostomus Vociferus		•
Kentucky Warbler	Oporornis Formosus	•	•
King Rail	Rallus Elegans		•
Prairie Warbler	Dendroica Discolor	•	•
Prothonotary Warbler	Protonotaria Citrea	•	•
Red-Headed Woodpecker	Melanerpes Erythrocephalus		•
Rusty Blackbird	Euphagus Carolinus		•
Wood Thrush	Hylocichla Mestelina	•	•

Table 2-5: Migratory Birds

Source: U.S Fish and Wildlife Services

Due to the presence of suitable habitat for four of the migratory birds listed by the USFWS as species of concern, precautions may be implemented potential construction contracts to reduce the likelihood that inadvertent adverse impacts to migratory birds would occur. Although the take of migratory birds resulting from an activity is not prohibited by the MBTA when the underlying purpose of that activity is not to take migratory birds, the USFWS recommends that steps be taken to help prevent an incidental take of migratory birds. A list of voluntary mitigation measures that could be implemented by the Airport to prevent an incidental take of migratory birds is provided, below:

- 1. Conduct activities outside of the bird nesting season to avoid the need for active nest relocation or destruction, when appropriate;
- 2. Perform nest surveys prior to conducting clearing activities during the breeding season;
- If possible, contact a federally-permitted rehabilitator (<u>https://www.nwrawildlife.org/page/Find_A_Rehabilitator</u>) to provide assistance in relocating an active nest.

2.8.4 Climate



Although there are no federal standards for aviation-related greenhouse gas (GHG) emissions, it is well established that GHG emissions can affect climate. The Council on Environmental Quality (CEQ) has indicated that climate should be considered in NEPA analyses, and in 2016 the CEQ released final guidance for federal agencies on how to consider the impacts of their actions on global climate change in their NEPA reviews. A Notice of Availability for that guidance was published on August 5, 2016 (81 Federal Register 51866). However, pursuant to Executive Order 13783, "Promoting Energy Independence and Economic Growth," of March 28, 2017, the guidance has been withdrawn for further consideration. For future projects at the airport, GHG emissions from construction-related activities aircraft operations should be considered.

2.8.5 Coastal Resources (g)

DeKalb County is not one of the counties located within the coastal zone of Georgia. Therefore, future projects at the airport would not result in direct, indirect, or cumulative impacts on coastal resources, under the Coastal Zone Management Act (CZMA), Coastal Barrier Resources Act (CRBA), or the Coastal Barrier Improvement Act (CBIA).

2.8.6 Section 4(f) Properties

"Section 4(f) of the U.S. Department of Transportation (DOT) Act of 1966 prohibits federal agencies from using land from publicly owned parks, recreation areas (including recreational trails), wildlife and waterfowl refuges, or public and private historic properties, unless there is no feasible and prudent

alternative to that use and the action includes all possible planning to minimize harm to the property resulting from such a use."² There is one publicly owned park, Doc Manget Memorial Airport Park, located on the airport property. The park is located near the airport administrative buildings and below the ATCT. There are no recreation areas or trails located on or adjacent to the airport property. In addition, there are no wildlife or waterfowl refuges located near the airport property.



Section 4(f) prohibits the use of public and **Figure 2-13: Doc Manget Memorial Airport Park** private historic properties unless there is no feasible and prudent alternative. Adverse impacts to historic properties can be visual or audible in nature, therefore, future projects implemented at the airport may adversely affect historic properties even though they are contained entirely on the property. As a result, surveys for historic properties that may be eligible for listing on the National Register of Historic Places (NRHP) must be conducted prior to implementation of future airport projects. These historic resources

² Federal Transit Administration (March 166, 2016). Section 4(f) of the Department of Transportation Act. Accessed on October 1, 2018 at: <u>https://www.transit.dot.gov/regulations-and-guidance/environmental-programs/section-4f-department-transportation-act.</u>



surveys will need to identify a project-specific Area of Potential Effects (APE), identify any structures within the APE that are 50 years old or older and eligible for listing on the NRHP, and then a determination needs to be made as to whether project implementation would result in adverse impacts to any resources identified.

2.8.7 Farmlands (g)

For the purposes of the Farmland Protection Policy Act (FPPA), farmland includes prime farmland, unique farmland, and land of statewide or local importance. Farmland subject to the FPPA can also be forest land, pastureland, cropland, or other land, but not water or urban built-up land. Farmland soils are considered a non-renewable resource, and conversion of farmland to an airport facility would be an irreversible commitment of resources as long as that facility remains in place. PDK is located within a U.S. Census Bureau urban area (GA03817); therefore, the FPPA does not apply.

2.8.8 Hazardous Materials, Solid Waste, And Pollution Prevention

Hazardous Materials

Hazardous materials are substances defined and regulated by the Comprehensive Environmental Response, Compensation, and Liability Act, as amended by the Superfund Amendments and Reauthorization Act, and substances defined and regulated by the Toxic Substances Control Act. In general, hazardous materials are substances that, because of their quantity, concentration, physical, chemical, or infectious characteristics, may present substantial danger to public health or welfare, or to the environment, when released or otherwise improperly managed.³There are three Fixed Base Operators (FBOs) at the airport, all of which provide full-service fueling services (i.e. Avgas and Jet A fuel) to their customers. There is also one self-service fueling facility located on the airport property to the west of the airfield and north of airport Road. As a result, there are eight aboveground fuel farms containing Avgas and Jet A fuel located throughout the airport property. Additionally, many of the aviation-related businesses at the airport are classified as either handlers of hazardous materials or small quantity generators of hazardous materials. Therefore, future projects at the airport need to be evaluated for their potential to result in adverse impacts to hazardous materials facilities.

Solid Waste

The DeKalb County Landfill is located approximately 24 miles south of the airport property, and the landfill accepts commercial waste such as concrete products. Therefore, future projects at the airport that would result in the generation of solid waste would be supported by the presence of the DeKalb County Landfill, which would be capable of accepting any construction waste produced by the project.

Pollution Prevention

The construction of additional paved surfaces at the airport would increase the impervious surfaces at the airport. Therefore, the airport would be required to update its current Stormwater Pollution Prevention Plan (SWPPP) to account for the additional impervious surfaces to be constructed on the airport property. In addition, any clearing and grubbing activities associated with future projects would result in the exposure of loose soils immediately following construction activities. Best Management Practices (BMPs) would need to be used to reduce the amount of sedimentation and erosion on the construction site. Silt fencing would need to be installed around the perimeter of the disturbed areas to prevent sediments

³ Resource Conservation and Recovery Act (RCRA) Subtitle C, 40 CFR Part 251.



from escaping the construction sites, and each site would be grassed with native grasses to stabilize the cleared areas.

2.8.9 Historic Resources

The National Historic Preservation Act of 1966 (NHPA) mandates that districts, sites, buildings, structures, and objects that are significant to American history, architecture, archaeology, engineering, and culture be cataloged on the NRHP. Section 106 of the NHPA, Protection of Historic and Cultural Resources, requires federal agencies to consider the effects of their actions on resources listed on the NRHP, as well as on resources that are determined to be eligible for listing on the NRHP.

Impacts to cultural resources can occur by physically altering, damaging, or destroying a resource or by altering characteristics of the surrounding environment that contribute to the resource's significance. Resources can also be impacted by neglecting the resource to the extent that it deteriorates or is destroyed. Adverse effects occur when these activities intersect with identified NRHP-eligible resources within the Area of Potential Effects (APE).

Based on the information provided on the GNARGIS website, there are currently no recorded historic resources located on Airport property.

2.8.10 Natural Resources and Energy Supply

In accordance with FAA guidelines, federal agencies must evaluate potential changes in energy requirements and the use of consumable natural resources at an airport for any proposed construction activities. Energy supply requirements typically fall into two categories: those that relate to changing demand from stationary facilities (e.g., major airfield lighting and terminal building heating demands) that might exceed local supplies or capacities; and those involving the increased movement of air and ground vehicles to the extent that demand exceeds energy supplies. An evaluation of potential impacts on natural resources includes considerations such as the local availability of construction materials and the use of scarce or unusual consumable natural resources for construction of the proposed project.

Future projects at the airport are not likely to result in a permanent increase in demand for energy supplies. Construction activities typically result in a temporary increase in demand for petroleum products in the form of fuel to operate the construction equipment. However, this temporary increase in demand for petroleum products would not represent a significant increase in demand for energy resources. Any future project at the airport that would result in a change in aircraft fleet mix or the number of aircraft operations, an evaluation of the potential impacts to natural resources and energy supply would be necessary.

2.8.11 Noise and Compatible Land Use

Airport land use compatibility planning means controlling land uses in and around airports to promote use and development that does not create restrictions to the airport, or hazards to persons or property on the ground and the flying public. Land uses should be controlled within the airport, runway protection zones, approach areas and the general vicinity of the airport.

The City of Chamblee Comprehensive Plan (adopted 3/17/15; amended 9/20/16) was reviewed to determine the existing zoning and future land use plans on and adjacent to PDK Airport. Land use

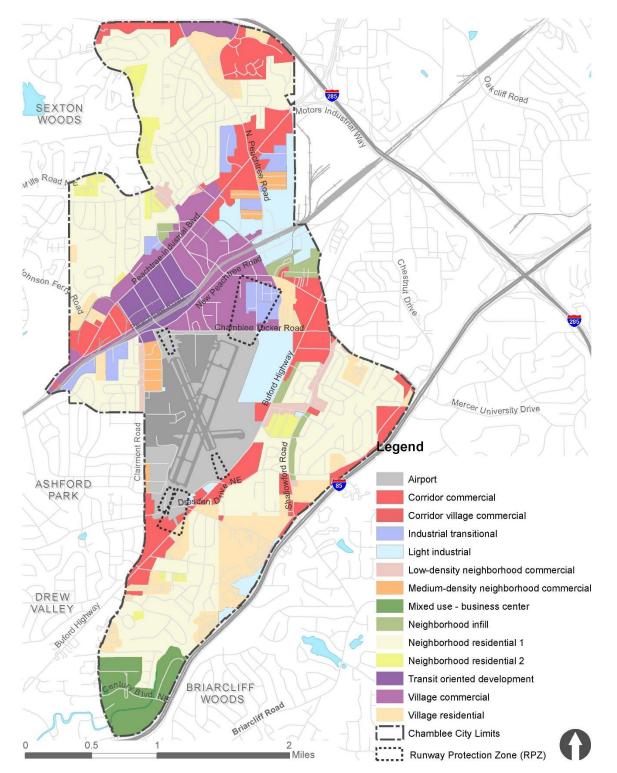


immediately surrounding the airport is regulated by the City of Chamblee, City of Brookhaven, City of Doraville and unincorporated DeKalb County. Properties adjacent to the airport are zoned Corridor Commercial, Village Commercial, Neighborhood Commercial, Light Industrial, Neighborhood Residential 1, and Transit-Oriented Development. Land uses within the Runway Protection Zones (RPZ), to the north are used for Industrial Transitional and Village Commercial while the land use within the southern RPZ is largely used for Commercial Corridor and Medium-Density Neighborhood Commercial.

Land use within the existing airport property is classified as "Airport/Transportation" use shown **Figure 2-14**. As a result, all future projects within the airport boundary must be compatible with an airport/transportation facility.







Source: City of Chamblee, 2018.



The compatibility of existing and planned land uses is often associated with the extent of the airport's noise impacts. Noise is considered unwanted sound that can disturb routine activities (e.g., sleep, conversation, student learning) and can cause annoyance. Aviation noise primarily results from the operation of fixed and rotary wing aircraft, such as departures, arrivals, overflights, taxiing, and engine run-ups.4 FAA policy is that airports are to be constructed and operated such that they minimize current and future noise impacts on surrounding communities [49 U.S.C. §47101(a)(2)]. Accordingly, the FAA pursues a program of aircraft noise control, in cooperation with the aviation community. The FAA has established several programs and activities aimed at addressing these constraints, which includes limiting the number of people exposed to significant noise levels.

The FAA's significance threshold for noise is an action that would increase noise by a Day Night Average Sound Level (DNL) by 1.5 dB or more for a noise sensitive area that is newly exposed to noise at or above the DNL 65 dB noise exposure level, or that will be exposed at or above the DNL 65dB level due to a DNL 1.5dB or greater increase, when compared to the no action alternative for the same timeframe.5 Noise control measures include noise reduction at the source; i.e., development and adoption of quieter aircraft, soundproofing and buyouts of buildings near airports, operational flight control measures, and land use planning strategies.

In order to prevent or reduce adverse noise impacts to the adjacent noise receptors (i.e. single-family, multi-family, and high-density multi-family communities) future airport development actions that result in fleet mix changes, number of aircraft operations, air traffic changes or new approaches to the airport should be evaluated for their potential to produce increases of more than 1.5 dB or more inside the 65 DNL in comparison the existing condition existing condition. **Figure 2-15** illustrates the most recent airport DNL noise contours prepared by the Airport in 2017 which reflects 2016 operations overlaid onto a land use base map.

In addition to aviation noise impacts, construction noise impacts could occur when the equipment being used during construction-related activities on the airport property produces enough unwanted sound that adjacent property owners are adversely affected. Construction noise impacts should be considered for any major improvements proposed in the master plan.

⁴ FAA. 2015. FAA Order 1050.1F Desk Reference. July 2015.

⁵ Ibid.

⁶FAA, Environmental Desk Reference



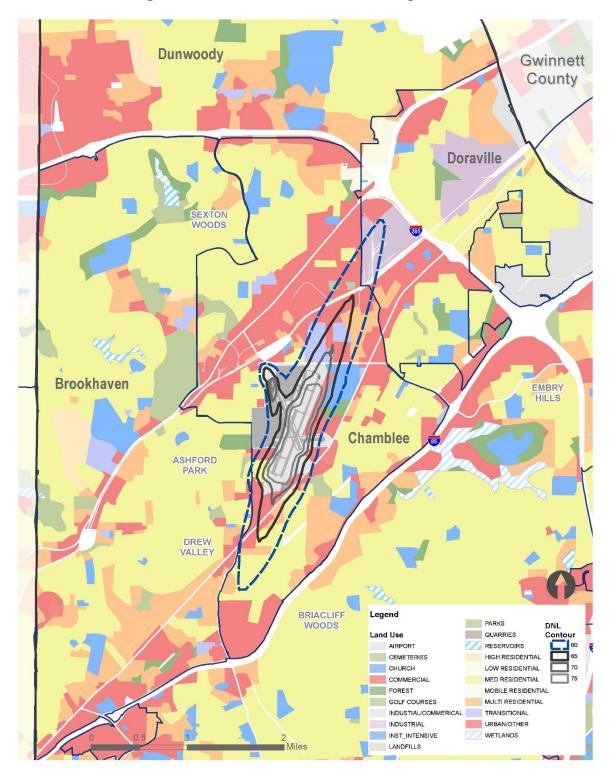


Figure 2-15: 2016 Noise Contours and Existing Land Use

Source: Michael Baker International, 2019.



2.8.12 Socioeconomic Impacts and Environmental Justice

In accordance with 40 CFR 1508.14, NEPA documentation must address social impacts of a proposed project. An evaluation of the "human" environment considers the relationship of people with their natural and physical environments because people are typically affected by changes in these two types of environments.⁶ In accordance with E.O. 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, federal agencies to identify community issues of concern during the study process, particularly those issues relating to decisions having an impact on low-income or minority populations.

Each of the future planned projects must be evaluated for its potential to result in adverse impacts to the socioeconomic, environmental justice, and children's environmental health.

2.8.13 Visual Effects

FAA Order 1050.1F defines visual effects as "the extent to which the proposed action or alternative(s) would either: 1) produce light emissions that create an annoyance or interfere with activities; or 2) contrast with, or detract from, the visual resources and/or the visual character of the existing environment." Furthermore, visual effects are usually difficult to define and assess because they involve subjectivity. Although aviation-related and aerospace actions do not typically result in adverse visual effects, they can occur in specific circumstances. Adverse visual impacts are divided into two categories: (1) light emission effects; and (2) visual resources and visual character.

Light emissions include any light that emanates from a source into the surrounding environment. Navigational aids, terminal lighting, parking facility lighting, airfield and apron lighting are all examples of airport sources of light emissions. Visual resources include traditional cultural properties, buildings, and other natural or manmade landscape features that are visually important or have unique characteristics. Structures or objects that obscure or block other landscape features would be considered visual resources. Visual resources also can include collections of various individual resources that can be viewed at once or in concert from the area surrounding the site of the proposed action or alternative(s). In some instances, the nighttime sky may be considered a visual resource. Visual character refers to the overall makeup or the existing environment where the proposed action or alternative(s) would be located. Developed areas in proximity to densely populated areas have an urban visual character, whereas less developed areas may have a visual character that is better defined by the landscape features as opposed to manmade structures.

There are no special purpose laws or requirements that address visual effects. However, some visual resources are protected under federal, state, or local regulations. In addition to NEPA, some other laws that protect resources that may be adversely affected by visual effects include Section 106 of the National Historic Preservation Act, Section 4(f) of the DOT Act, the Wild and Scenic Rivers Act, and state and regional coastal protection acts. Visual resources may also be protected and managed on federal resource lands, such as U.S Forest Service Resource Management Plans and the Bureau of Land Management Visual Resource Management System. There are also state and local regulations, policies, and zoning ordinances that may apply to visual effects. The airport property consists of various sources of lighting that is mostly contained within the existing boundaries. Types of lighting includes taxiway and runway lighting, Runway



End Indicator Lights, a rotating beacon, apron lighting, roadway streetlamps, and exterior building lights.

There are no known visually sensitive resources located in the vicinity of the airport that are not already affected by the presence of the existing facility; therefore, it is unlikely that future projects at the airport would result in adverse light emission impacts to adjacent property owners. However, visual impacts could occur if an NRHP-eligible historic property is identified in the vicinity of the airport and a future project might result in the clearing of forested habitats that create a new sightline to the airport property.

2.8.14 Waters of the U.S.

Wetlands and Surface Waters

Jurisdictional waters of the U.S. identified on the airport property three intermittent streams, two wetlands, and one perennial stream. One intermittent stream is located on the undeveloped parcel located north of Chamblee-Tucker Road. This resource extends from approximately 470 feet west of Cataline Drive to a point approximately 841 feet east of Catalina Drive.

The second intermittent stream is located just north of the rear property access road east of Runway 3R-21L and connects two jurisdictional wetlands. Approximately 385 feet of this intermittent stream are located on the airport property. The first jurisdictional wetland serves as the headwaters for the second intermittent stream and is located northwest of the pipe installed underneath the driveway leading into the abandoned parking lot northwest of the American Fueling Systems business. The second jurisdictional wetland is the at limit of the second intermittent stream and the third intermittent stream. The third intermittent stream flows from southwest to northeast through the forested habitat located south of the Runway 34 End. Approximately 850 feet of this resource are located on the airport property.

Floodplains

Executive Order (E.O.) 11988, Floodplain Management, requires that efforts be made to avoid to the extent possible the long- and short-term adverse impacts associated with the occupancy and modification of floodplains. It also requires that efforts be made to avoid direct or indirect support of development in floodplains wherever there is a practicable alternative, and it prohibits floodplain encroachments that would cause a substantial flood risk, a critical interruption of an emergency transportation facility, or an adverse impact on the floodplain's natural values.

Development in a FEMA-designated 100-year floodplain is permitted by federal regulations if hydrologic and hydraulic analyses demonstrate that the development would not result in an increase of more than one foot of the Base Flood Elevation (BFE). However, floodways must retain the ability to convey the 100-year flood by remaining unobstructed.

Based on a review of the FEMA floodplain maps, there are Zone A, Zone AE, and Zone Z floodplains located on the undeveloped parcel north of Chamblee-Tucker Road. These floodplains are associated with the intermittent stream and North Fork Peachtree Creek that flow through this parcel. There is also an area of Zone AE floodplains located along the east Airport boundary associated with the 1,100-foot segment of North Fork Peachtree Creek south of the CDC building. Future projects at the airport that would result in the filling of floodplains would require a hydrologic and hydraulic analysis to determine if the impacts would result in a greater than 1-foot rise in the base flood elevation. If so, a Conditional Letter of Map Revisions would be requested from the Federal Emergency Management Agency (FEMA). If not, a No-Riser certification would be issued by FEMA.



Groundwater

The Safe Drinking Water Act (42 U.S.C. 300 (f)-300j-26) prohibits federal agencies from funding actions that would contaminate a U.S. EPA-designated sole source aquifer or its recharge area. There are no aquifers or recharge areas on or adjacent to the airport property; therefore, any future project at the airport would not result in adverse impacts to groundwater sources or recharge areas.

Wild and Scenic Rivers

The National Wild and Scenic Rivers Act of 1968 (16 U.S.C. Parts 1271-1287) protects rivers that are listed as significant resources for their wild, scenic, or recreational values, along with those that are under consideration for inclusion on the list. In addition, under a 1979 Presidential Directive, federal agencies are required "... to take care to avoid or mitigate adverse effects on rivers identified in the Nationwide Inventory." There are no federally protected wild, scenic, or recreational rivers, nor are there any rivers listed on the Nationwide River Inventory in the vicinity of the airport. The only river listed on the National Wild and Scenic River System within Georgia is the Chattooga River. The southern limit of the protected portion of the Chattooga River is located approximately 80 miles northeast of the airport property; therefore, future projects at the airport would not result in adverse impacts to Wild and Scenic Rivers.

