Final Environmental Assessment

Cobb County International Airport – McCollum Field

Master Plan Improvement Projects

Cobb County, GA

Prepared for:
Cobb County Department of Transportation

October 2020

Prepared by:
Michael Baker International, Inc.

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

_____ _____

Carol L. Comer, Director **Date**
Division of Intermodal
FAA State Block Grant Program Representative
Georgia Department of Transportation

EXECUTIVE SUMMARY

Introduction

Cobb County International Airport – McCollum Field (RYY) is a 323-acre public-use facility located one mile southeast of Kennesaw, Georgia, approximately 25 miles northwest of the city of Atlanta. The Airport is owned and operated by the Cobb County Department of Transportation (CCDOT) in accordance with Federal Aviation Administration (FAA) requirements, with oversight by the Georgia Department of Transportation (GDOT) on federally funded, state-funded, and locally funded projects as a designated State Block Grant Program (SBGP) participant. The proposed projects to be evaluated in this Environmental Assessment (EA) are federally funded.

The Airport has one active runway, Runway 9/27, which is 6,295 feet long and 100 feet wide. The taxiway system consists of two full-length parallel taxiways, one on each side of the runway, as well as additional access taxiways within the airfield.

The Airport currently serves as home base to 283 total aircraft: 184 single-engine, 28 multi-engine piston, 56 jets, and 15 helicopters; it accommodated 68,223 operations as of December 31, 2017 (Airport Master Records – Form 5010). Of the total operations, 40,000 (58.6 percent) were general aviation-itinerant, 25,000 (36.6 percent) were general aviation-local, 2,400 (3.5 percent) were air taxi, and 823 (1.2 percent) were military.

The Airport's ARC in the *2017 Master Plan Update – Cobb County International Airport* (September 1, 2017) is C-II for Runway 9/27. In that report, the design aircraft category up until 2020 is a C-11 aircraft, such as a Challenger 600 of an Embraer 135/145. By 2020, Category D and Group II aircraft annual operations are anticipated to increase to over 500; thus the critical aircraft would be a combination of D and II aircraft and the ARC would be D-11. By 2025, the design aircraft is expected to change to D-III category aircraft, such as the Gulfstream 5.

The 2003 *Georgia Aviation System Plan* provides a top-down analysis of Georgia airports, with recommendations for facility improvements at each public airport in order to improve the overall state system. RYY is classified as a Level III airport, a Business Airport of Regional Impact, and an airport of significant importance to the state's aviation needs.

The Airport is taking measures to improve the safety condition of the airfield for the C-II aircraft currently utilizing the facility and to improve the existing facility to accommodate future D-III aircraft operations. A 2004 reconstruction of Runway 9/27 extended the runway from 5,000 feet to 6,311 feet with a 1,062-foot long displaced threshold at the Runway 9 End. The current runway length is sufficient for 100 percent of small airplanes, 100 percent of the large airplane (less than 60,000 pounds) fleet operating at 60 percent useful load, and 75 percent of the large airplane fleet operating at 90 percent useful load.

The existing centerline of Taxiway 'A' is located 250 feet from the centerline of Runway 9/27; that runway/taxiway separation is 150 feet short of the FAA standard for a D-III airport (400 feet). The existing centerline of Taxiway 'B' is located 300 feet from the centerline of Runway 9/27; that runway/taxiway separation is 100 feet short of the FAA design standard for a D-III airport.

Currently, the Airport has approximately 635,000 square feet of hangar storage capacity and is at 100 percent occupancy. Based on the most recent aeronautical forecast, the current deficiency of hangar space is estimated to be 83,560 square feet. By 2035, the Airport will need to increase its

hangar capacity by an additional 337,080 square feet, for a total of 972,080 square feet of hangar storage capacity. The *2017 Master Plan Update* suggests that the Airport should plan for an additional 20 percent capacity beyond the forecasted projections so that the hangar capacity would be at 80 percent rather than 100 percent at the end of the planning period. Therefore, the ideal area of hangar storage space at RYY should be around 404,496 square feet by the year 2035.

There is no vacant land at the Airport that would meet the hangar space capacity requirement, and the property is enclosed on all sides by existing roadways and commercial and industrial developments. Any landside capacity improvements would have to occur beyond the current boundary of the Airport; therefore, property acquisition and/or redevelopment of current facilities would be necessary.

Description of the Proposed Action

The Proposed Action consists of three projects that are included in the *2017 Master Plan Update* and the Airport's Capital Improvement Plan (CIP) and identified for implementation within the 3-year planning period of this EA:

Taxiway 'A' Relocation
Objective: to meet FAA's 400-foot runway/taxiway separation standard for an ARC D-III Airport. An easement from the adjacent quarry would be required to accommodate the relocated taxiway and its Taxiway Object Free Area (TOFA). The project would include permitting and construction of a culvert extension at Noonday Creek and a culvert at the perennial stream and wetland located along the westernmost portion of the taxiway area. The grading would encroach into the existing northside basing area, displacing aircraft parking spaces that would be relocated into the proposed Southside Basing Area.

Southside Basing Area
Objective: to accommodate sideslopes for the Taxiway 'B' relocation and provide a site for aircraft parking spaces displaced from the Airport as part of the Taxiway 'A' and Taxiway 'B' projects and for future development of hangared aircraft storage. The existing structures would be demolished and the site would be graded as needed to accommodate the relocated Taxiway "b" and its TOFA, aircraft parking spaces, and future development of aircraft storage space.

Taxiway 'B' Relocation
Objective: to meet FAA's 400-foot runway/taxiway separation standard for an ARC D-III Airport. The project would require acquisition of the adjacent Parcels 1650, 1640, and 2155 to accommodate the relocated taxiway and its TOFA, as well as permitting and construction of a culvert extension at Noonday Creek. The project limits would encroach into the existing south basing area, displacing aircraft parking spaces that would be relocated into the proposed Southside Basing Area.

Purpose and Need

The Proposed Action is needed to accommodate operational growth at the Airport over the planning period. Each element of the Proposed Action is necessary for the Airport to maintain current FAA airport design standards and safety requirements, and to help the Airport accommodate the changing operational demands of the facility.

Requested Federal Action

The requested federal action is the unconditional approval by the FAA of the Sponsor-Preferred Alternative for each of the proposed projects discussed in this EA as shown on the ALP, and possible Federal funding.

Description of Alternatives

Taxiway 'A' Relocation

Alternative 1a (No Action)

- take no action to relocate Taxiway 'A.'

Alternative 1b (400-foot runway/taxiway separation)

- acquire a permanent easement from the adjacent quarry to accommodate a taxiway bridge;
- relocate Taxiway 'A' 150 feet north, bridged along the quarry edge at Taxiways A4 and A5;
- demolish/reconstruct portions of the northside ramp and the hold apron;
- relocate the existing segmented-circle NAVAID and weather equipment;
- relocate 23 tie-down spaces to Parcels 1650, 1640, and 2155 (Southside Basing Area); and
- permit/construct a 485-foot culvert at Aquatic Resource 2 / Aquatic Resource 3 and a 102-foot extension of the Noonday Creek box culvert.

Alternative 1c (321-foot to 400-foot runway/taxiway separation)

- acquire a permanent easement from the adjacent quarry to accommodate the TOFA grading;
- request a Memorandum of Agreement from the FAA to modify the runway/taxiway separation standard to meet FAA design standards for an ARC D-III Airport;
- relocate Taxiway 'A' 150 feet north along the western 2/3 of the taxiway length and 71 feet north along the eastern 1/3 of the taxiway length;
- demolish/reconstruct portions of the northside ramp and the hold apron;
- relocate the existing segmented-circle NAVAID and weather equipment;
- relocate 23 tie-down spaces to Parcels 1650, 1640, and 2155 (Southside Basing Area); and
- permit/construct a 485-foot culvert at Aquatic Resource 2 / Aquatic Resource 3 and a 102-foot extension of the Noonday Creek box culvert.

Alternative 1d (321-foot runway/taxiway separation)

- acquire a permanent easement from the adjacent quarry to accommodate the TOFA grading;
- request a Memorandum of Agreement from the FAA to modify the runway/taxiway separation standard to meet FAA design standards for an ARC D-III Airport;
- relocate Taxiway 'A' 71 feet north along the entire length of the taxiway;
- demolish/reconstruct portions of the northside ramp and the hold apron;
- relocate the existing segmented-circle NAVAID and weather equipment;
- relocate 9 tie-down spaces to Parcels 1650, 1640, and 2155 (Southside Basing Area); and
- permit/construct a 485-foot culvert at Aquatic Resource 2 / Aquatic Resource 3 and a 102-foot extension of the Noonday Creek box culvert.

Alternative 1e (300-foot runway/taxiway separation)

- acquire a permanent easement from the adjacent quarry to accommodate the TOFA grading;
- request a Memorandum of Agreement from the FAA to modify the runway/taxiway separation standard to meet FAA design standards for an ARC D-III Airport;

- relocate Taxiway 'A' 50 feet north along the entire taxiway;
- demolish/reconstruct portions of the northside ramp and the hold apron;
- relocate the existing segmented-circle NAVAID and weather equipment; and
- permit/construct a 485-foot culvert at Aquatic Resource 2 / Aquatic Resource 3 and a 102-foot extension of the Noonday Creek culvert.

Southside Basing Area

Alternative 2a (No Action)

- take no action to construct a Southside Basing Area.

Alternative 2b (Construct Southside Basing Area)

- demolish and remove existing structures from Parcels 1650, 1640, and 2155 to be acquired as part of Alternative 3b of the Proposed Action;
- prepare the site as needed to provide developable space for future aircraft storage; and
- provide aircraft parking spaces for those displaced as part of the Taxiway 'A' and Taxiway 'B' elements of the Proposed Action.

Taxiway 'B' Relocation

Alternative 3a (No Action)

- take no action to relocate Taxiway 'B.'

Alternative 3b (400-foot runway/taxiway separation)

- acquire Parcels 1650, 1640, and 2155 in fee to accommodate the required grading outside the existing Airport boundaries;
- relocate Taxiway 'B' 100 feet south;
- request a Modification of Standards from the FAA for the western end of the proposed taxiway as a Part 77 obstruction (primary surface violation), to avoid a ramp reconstruction;
- relocate two helicopter pads and 17 tie-down spaces to Parcels 1650, 1640, and 2155 (the Southside Basing Area); and
- permit/construct a 76-foot extension of the Noonday Creek box culvert (deed-restricted area).

Alternative 3c (300- to 400-foot runway/taxiway separation)

- relocate the segment of Taxiway 'B' between the Runway 9 End and Taxiway B2 100 feet south and the segment between Taxiways B5 and B6 100 feet south;
- request a Memorandum of Agreement from the FAA to modify the runway/taxiway separation standard to meet FAA design standards for an ARC D-III Airport;
- request a Modification of Standards from the FAA for the western end of the proposed taxiway as a Part 77 obstruction (primary surface violation), to avoid a ramp reconstruction;
- relocate two helicopter pads and 17 tie-down spaces to Parcels 1650, 1640, and 2155 (the Southside Basing Area); and
- permit and construct a 75.6-foot extension of the Noonday Creek box culvert (deed-restricted area).

Alternatives Screening Process

The reasonable build alternatives for the two taxiway relocation projects were screened to identify the alternatives that would be evaluated in greater detail for their potential environmental impacts relative to their respective No Action alternatives in Chapter 4 of this EA. The reasonable build

alternative for the Southside Basing Area project was also brought forward for an evaluation of its impacts relative to its respective No-Action Alternative in Chapter 4 of this EA.

The screening process initially considered each alternative's consistency with the purpose of and need for the Proposed Action, which is to accommodate the operational growth and meet the demand for hangared aircraft storage space while also conforming to federal and state operational, safety, and airport design requirements. Constructability and environmental impacts, as well as cost, were then assessed among the alternatives that met the purpose of and need for the Proposed Action. The three alternatives that met the screening criteria were carried forward to a more detailed evaluation of their potential environmental impacts relative to their corresponding no-action alternative, as required by the Council on Environmental Quality (CEQ) regulations.

Results of the Alternatives Screening Process

No Action Alternatives

Alternatives 1a, 2a, and 3a are the no-action alternatives for the Taxiway 'A' relocation, the Southside Basing Area, and the Taxiway 'B' relocation, respectively. There would be no environmental impacts associated with selection of each of these alternatives; however, none of them would meet the purpose of and need for the Proposed Action, because there would be no change from the existing conditions at the Airport that would enable the Airport to meet current FAA design standards or safety requirements or to accommodate operational growth at the Airport. The three No Action alternatives were carried forward to a more detailed analysis of environmental impacts relative to their corresponding Sponsor-Preferred build alternatives.

Reasonable Build Alternatives

Taxiway 'A' Relocation

Alternative 1b would relocate Taxiway 'A' to help the Airport meet FAA design standards for a D-III airport. The construction of one culvert would join into the existing downstream culvert, impacting 485 feet of a perennial stream and 0.42 acre of associated wetland along the western portion of the taxiway area. Construction of a 102-foot extension of the existing box culvert would impact 127 linear feet of Noonday Creek, including approximately 0.09 acre of impacts to Cherokee darter habitat. Alternative 1b would also impact 2.58 acres of floodplain resources.

Alternative 1b would remove 0.42 acre of bottomland hardwood forest at the eastern end of the airfield, which provides roosting habitat for the federally protected northern long-eared bat. The construction contract would include seasonal clearing restrictions to avoid or minimize impacts to this species, and there is ample similar habitat in the nearby vicinity for this and other terrestrial species. This alternative would have no impacts on other environmental resource categories.

The project limits would encroach into the existing northside apron area, displacing 23 tie-down spaces that would be relocated to the proposed Southside Basing Area as part of Alternative 2b. The estimated cost in 2017 dollars is approximately $19.5 million.

Alternatives 1c, 1d, and 1e would also relocate Taxiway 'A' to help the Airport meet FAA design standards for a D-III airport. However, each of these alternatives would require a Memorandum of Agreement with the FAA to modify the runway/taxiway separation standard to meet the FAA design criteria for an ARC D-III airport.

Alternatives 1c, 1d, and 1e would each impact 485 linear feet of perennial stream and 0.42 acre of wetland at the western end of the airfield, as well as 127 linear feet of Noonday Creek, including approximately 0.09 acre of impacts to Cherokee darter habitat. Alternatives 1c, 1d, and 1e would

also impact 2.06 acres, 1.92 acres, and 1.64 acres of floodplain resources, respectively. Alternatives 1c, 1d, and 1e would have no impacts on other environmental resource categories.

Implementation of Alternatives 1c and 1d would displace 23 and 9 tie-down spaces, respectively; no tie-down spaces would be impacted with Alternative 1e. The estimated costs in 2017 dollars for Alternatives 1c, 1d, and 1e are approximately $11.1 million, $10.9 million, and $10.6 million, respectively.

Result: Implementation of Alternative 1b would meet the purpose of and need for the Proposed Action by relocating Taxiway 'A' to provide a 400-foot runway/taxiway separation in accordance with FAA design standards for an ARC D-III airport. The environmental impacts would be relatively similar among Alternatives 1b, 1c, 1d, and 1e. For these reasons, Alternative 1b was selected as the Sponsor Preferred Alternative for this element of the Proposed Action.

Southside Basing Area

Alternative 2b would provide a location to accommodate the grading for the relocated Taxiway 'B' as part of Alternative 3b (see below). The Alternative 2b site would accommodate aircraft parking spaces that would be displaced as part of the Taxiway A' and Taxiway 'B' relocation projects; it also would provide a location for the future development of hangared aircraft storage, which would help meet the Airport's forecasted need to bring the percentage of stored aircraft from 40 percent to 70 percent.

Implementation of Alternative 2b would not involve direct social impacts because the land would be acquired as part of Alternative 3b (see below). Implementation of Alternative 2b would include building demolition and associated site work, which would avoid impacts to Noonday Creek and its buffer and floodplain resources. With utilization of best management practices for the building demolition there would be no substantial impact to environmental resources associated with the implementation of Alternative 2b. The estimated cost in 2017 dollars is approximately $19.3 million.

Result: Alternative 2b would meet the purpose of and need for this element of the Proposed Action and would minimize impacts to environmental resources; it was therefore selected as the Sponsor Preferred Alternative.

Taxiway 'B' Relocation

Alternative 3b would relocate Taxiway 'B' to help the Airport meet FAA design standards for a D-III airport without the need to request a Memorandum of Agreement from the FAA to meet FAA design criteria. It would require a Modification of Standards from the FAA for the western end of the proposed taxiway as a Part 77 obstruction (primary surface violation), to avoid a ramp reconstruction. Construction of a 76-foot extension of the existing box culvert would impact 101 feet of Noonday Creek (including 0.028 acre of Cherokee darter habitat) as well as 1.65 acres of associated floodplain resources. Clearing and grading to accommodate the relocated taxiway and TOFA as part of Alternative 3b would remove approximately 4.0 acres of mixed pine-hardwood forest habitat and 0.02 acre of upland scrub-shrub habitat within the proposed Southside Basing Area site, as well as 0.11 acre of mixed pine-hardwood forest and 0.80 acre of upland scrub-shrub habitat from within the existing Airport property. The removal of that vegetation would represent a minor impact to terrestrial biological resources, because seasonal clearing restrictions would be included in the construction contract to protect roosting habitat for the federally protected northern long-eared bat, and there is ample similar habitat in the nearby vicinity for this and other terrestrial species. There would be no impacts on other environmental resource categories.

The Alternative 3b project limits would encroach into the existing south basing area, displacing two helicopter pads and 17 tie-down spaces. The estimated cost in 2017 dollars is approximately $42.9 million, including $31.5 million for property acquisition and $11.4 million for the taxiway grading/paving, the culvert extension, and other associated site work.

Alternative 3c would relocate portions of Taxiway 'B' to help the Airport meet FAA design standards for a D-III airport; it would not relocate the central portion of Taxiway 'B' or acquire the adjacent Parcels 1650, 1640, or 2155. This alternative would require a Memorandum of Agreement with the FAA to modify the runway/taxiway separation standard, in order to meet the FAA design criteria for an ARC D-III airport, and a Modification of Standards from the FAA for the western end of the proposed taxiway as a Part 77 obstruction (primary surface violation) to avoid a ramp reconstruction. Alternative 3c would not help the Airport to meet its need for future development of aircraft storage (hangar) capacity or accommodate aircraft parking spaces displaced as part of the Taxiway A' and Taxiway 'B' relocation projects.

Implementation of Alternative 3c would impact 76 linear feet of Noonday Creek (including 0.028 acre of Cherokee darter habitat) as well as 1.33 acres of floodplain resources. It would impact 0.11 acre of mixed pine-hardwood forest and 0.80 acre of upland scrub-shrub habitat from within the existing Airport property, which would represent a minor impact to terrestrial biological resources because seasonal clearing restrictions would be included in the construction contract to protect roosting habitat for the federally protected northern long-eared bat, and there is ample similar habitat in the nearby vicinity for this and other terrestrial species. There would be no impacts on other environmental resource categories.

The project limits would encroach into the existing south basing area, displacing two helicopter pads and 17 tie-down spaces. The estimated construction cost in 2017 dollars is approximately $10.8 million for the taxiway grading/paving, the culvert extension, and other site work.

Result: Implementation of Alternative 3b would meet the purpose of and need for the Proposed Action by relocating Taxiway 'B' to provide a 400-foot runway/taxiway separation in accordance with FAA design standards for an ARC D-III airport. This alternative would also include the acquisition of land adjacent to the Airport to accommodate aircraft parking spaces that would be displaced with the relocations of Taxiways 'A' and 'B' and would help the Airport to meet its need for future development of aircraft storage capacity. The environmental impacts would be relatively similar between Alternatives 3b and 3c, if the clearing of mixed pine/hardwood forest in the adjacent Southside Basing Area is included in the comparison. For these reasons, Alternative 3b was selected as the Sponsor-Preferred Alternative for this element of the Proposed Action.

The Sponsor-Preferred Alternatives and their respective no-action alternatives were carried forward for a full evaluation of their potential environmental impacts in Chapter 4 of this EA.

Affected Environment

Cobb County International Airport is located inside the political boundary of unincorporated Cobb County, southeast of the city of Kennesaw and northwest of the city of Atlanta. It is bounded by McCollum Parkway to the northwest, a rock quarry to the north and northeast, Lakes Boulevard to the east, a conservation easement to the southeast, industrial development to the south and southwest, and South Main Street to the west. The Airport property is designated in the Cobb County 2040 Comprehensive Plan as civic land use. Land use in the immediate vicinity of the Airport is industrial to the northeast; industrial and commercial to the east and southeast; industrial

to the south; and residential to the southwest, west, and northwest. The northeastern and southeastern portions of the Airport are located within the Federal Emergency Management Agency (FEMA) 100-year floodplain of Noonday Creek.

The industrial land use located to the northeast of the Airport property is a rock quarry operated and managed by Vulcan Materials Company. Commercial development to the east consists of various retail businesses located within or adjacent to the Barrett Pavilion and the Cobb Place Shopping Center. To the southeast, commercial development consists of two financial institutions and an internet security company. Commercial and industrial development to the south includes a FedEx Ground distribution center. Residential development comprises the majority of the land use located southwest, west, and northwest of the Airport property.

Affected Human Populations

The project study area is mostly comprised of commercial and industrial land use. However, there is some residential use within the project study area. Based on block group data from the Georgia GIS Data Clearinghouse, between 17.1 and 38.3 percent of the population located adjacent to the Airport property identified as a race other than white. Based on data pulled from the same source, the portion of the population located in the vicinity of the Airport living below poverty ranged from 3.7 to 15.5 percent.

Past, Present, and Reasonably Foreseeable Future Actions

Past actions at the Airport include the installation of a 1,185-foot box culvert along Noonday Creek in 2000, an extension of the runway and taxiways in 2004, and a relocation of Noonday Creek upstream of the box culvert associated with the culvert construction in 2007, which included compensatory mitigation the establishment of deed restrictions. Additional extensions of both taxiways were constructed at the Runway 9 End in 2014, and the North Apron Rehabilitation and Taxiway Connector project and the Air Traffic Control Tower Upgrade project were each completed in 2017. There are no reasonably foreseeable future projects programmed for the Airport within the 3-year planning period of this EA.

Environmental Consequences

The potential adverse impacts associated with the No-Action Alternatives and the Sponsor-Preferred Alternatives for the Proposed Action were evaluated for 13 categories of the human, physical, and natural environment, as summarized in **Table E.1.**

Agency Coordination and Public Involvement

The environmental evaluation process for the proposed improvements to the Cobb County International Airport – McCollum Field has included the use of data and information provided by various federal, state, regional, and local governmental bodies. The Cobb County DOT advertised a Notice of Availability (NOA) in the *Marietta Daily Journal* (the general circulation newspaper of Cobb County) on April 10, 2020. The NOA informed the public that the Draft EA would be available at the Airport Administration Office and posted on the Airport's website (www.cobbcountyairport.org) for the 30-day public comment period. No comments were received. An electronic copy of the Draft EA was transmitted on May 5, 2020 to government agencies that have a potential stake in the proposed improvements at the Airport. The agency representatives were requested to provide comments, if any, on the Draft EA within 30 days after the document was received. Two comments were received, which were addressed and included in the Final EA.

Table E.1
Summary of Potential Environmental Impacts

Environmental Category	No-Action Alternatives	Sponsor Preferred Alternatives
Air Quality	No Impacts	No Impacts
Biological Resources – T&E Species Habitat (Aquatic)	No Impacts	Minor Impacts
Biological Resources – T&E Species Habitat (Terrestrial)	No Impacts	Minor Impacts
Climate	No Impacts	No Impacts
Coastal Resources	No Impacts	No Impacts
Department of Transportation Act: Section 4(f)	No Impacts	No Impacts
Farmlands	No Impacts	No Impacts
Hazardous Materials, Solid Waste, and Pollution Prevention	No Impacts	No Impacts
Historical, Architectural, Archaeological, and Cultural Resources	No Impacts	No Impacts
Natural Resources and Energy Supply	No Impacts	No Impacts
Noise	No Impacts	No Impacts
Socioeconomic Impacts, Environmental Justice, and Children's Environmental Health and Safety Risks	No Impacts	Minor Impacts
Visual Effects	No Impacts	No Impacts
Water Resources	No Impacts	Impacts

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CHAPTER 1. PROPOSED ACTION / PURPOSE AND NEED

1.1 INTRODUCTION

Cobb County International Airport – McCollum Field (Airport; Airport Identifier: RYY) is a public-use facility located one mile southeast of Kennesaw, Georgia, in Cobb County, approximately 25 miles northwest of the city of Atlanta (**Figure 1.1**). The Airport is owned and operated by the Cobb County Department of Transportation in accordance with Federal Aviation Administration (FAA) requirements, with oversight by the Georgia Department of Transportation (GDOT) on federally funded, state-funded, and locally funded projects as a designated State Block Grant Program participant. The proposed projects to be evaluated in this Environmental Assessment (EA) are federally funded.

The Airport is approximately 323 acres in size (**Figure 1.2**). It has one active runway, Runway 9-27, which is 6,295 feet long and 100 feet wide. The taxiway system is comprised of two full-length parallel taxiways, one on each side of the runway, as well as additional access taxiways within the airfield. According to Airport Master Records – Form 5010, the Airport currently serves as home base to 283 aircraft: 184 single-engine, 28 multi-engine piston, 56 jets, and 15 helicopters.[1] The same data show that the Airport accommodated 68,223 operations as of December 31, 2017. Of the total operations, 40,000 (58.6 percent) were general aviation-itinerant, 25,000 (36.6 percent) were general aviation-local, 2,400 (3.5 percent) were air taxi, and 823 (1.2 percent) were military (**Appendix A – Supporting Documents**).

Aviation-related businesses operating at the Airport include corporate flight departments, charter operations, aircraft maintenance and avionics repair, fixed-wing and helicopter flight training, aircraft scenic flight services, and Fixed Base Operators (FBOs). The Airport does not accommodate commercial airline service or regular military activity; however, medical evacuation services and a Georgia State Patrol unit do operate regularly at this facility.

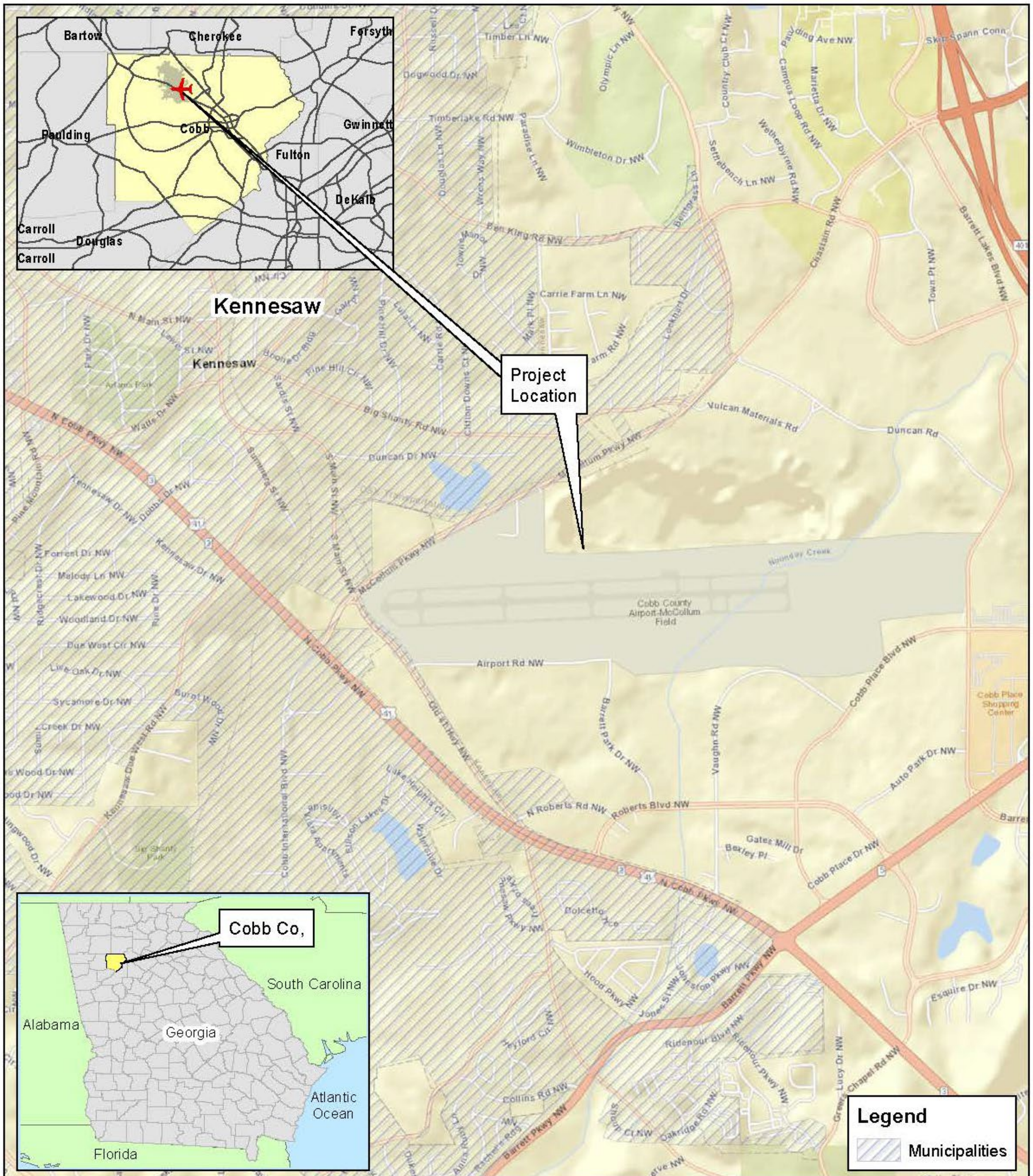
The Airport does not have a terminal building, but its FBO, Hawthorne Aviation, offers extensive services for pilots and customers including a 6,000-square foot facility with pilot lounges, conference rooms, flight planning, car rental, and after-hours fuel and emergency services. The Airport's administration offices are housed in the new Air Traffic Control Tower (ATCT) facility.

Airport Classification

The Airport is categorized as a General Aviation – Reliever airport in the National Plan of Integrated Airport Systems (NPIAS). The Airport Reference Code (ARC) is a coding system that is used to relate airport design criteria to the operational and physical characteristics of an airport; it is made up of two components: the Aircraft Approach Category (AAC) and the Airplane Design Group (ADG) (FAA AC-150/5300-13A). The AAC classifications are as follows:

- Category A – Aircraft with an approach speed of less than 91 knots
- Category B – Approach speeds of 91 knots or greater, but less than 121 knots
- Category C – Approach seeds of 121 knots or greater, but less than 141 knots
- Category D – Approach speeds of 141 knots or greater, but less than 166 knots

[1] Airport IQ 5010 (2019). Airport Master Records and Reports. Accessed on March 28, 2019 at: https://www.gcr1.com/5010WEB/airport.cfm?Site=RYY&AptSecNum=2.

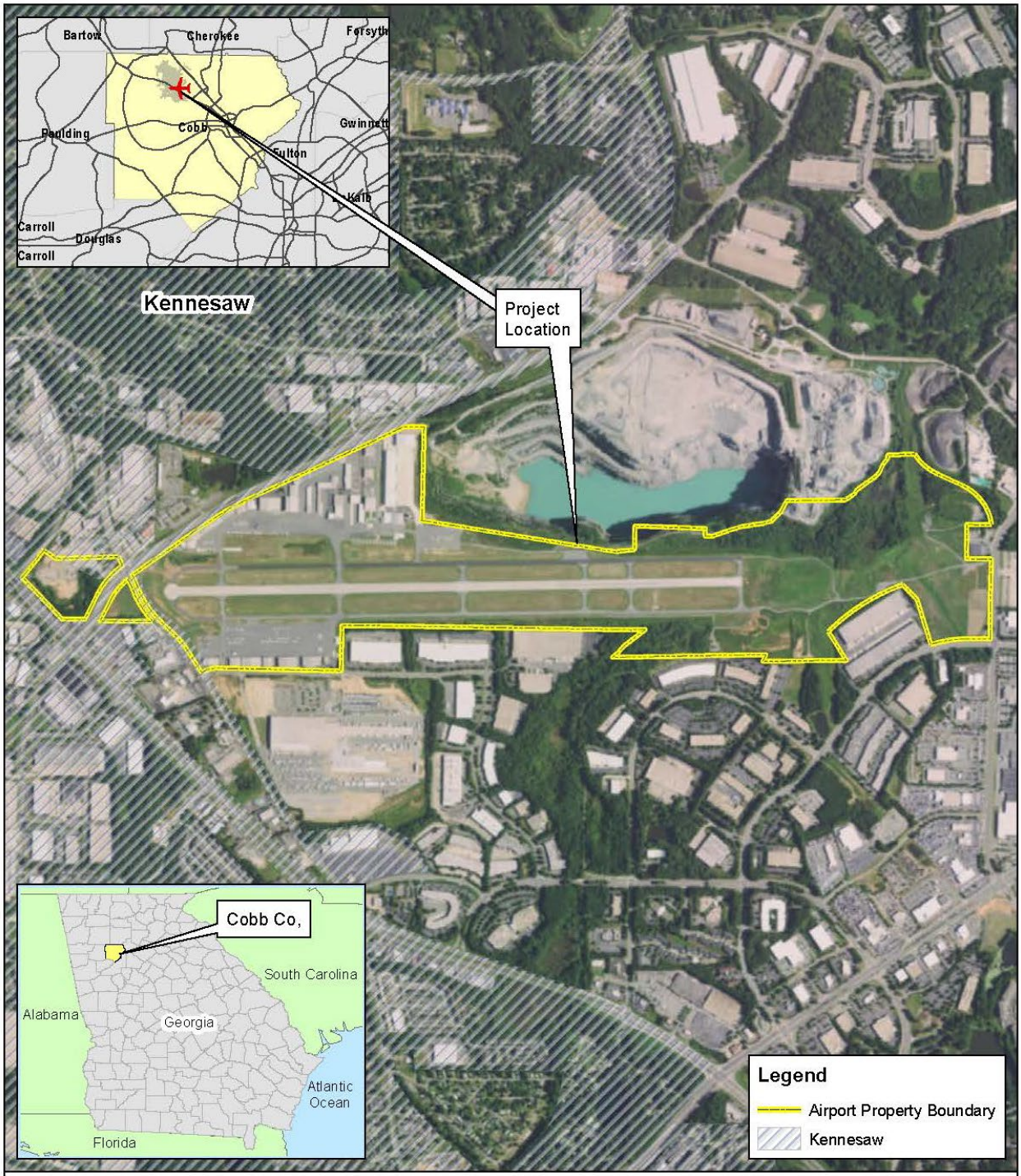


Master Plan Improvement Projects
Cobb County International Airport - McCollum Field
Cobb County, Georgia

Figure 1.1: Project Vicinity Map
(World Street Map)

Service Layer Credits: ESRI, HERE, DeLorme, USGS, Intermap, World Street Map
Source: Georgia GIS Data Clearinghouse, Cobb County, Airports

N
0 2,000 4,000 Feet


Bartow
Cherokee
Forsyth
Paulding
Cobb
Gwinnett
Fulton
DeKalb
Carroll
Douglas
Carroll
Kennesaw
Project Location
Cobb Co,
South Carolina
Alabama
Georgia
Atlantic Ocean
Florida
Legend
Airport Property Boundary
Kennesaw
Master Plan Improvement Projects
Cobb County International Airport - McCollum Field
Cobb County, Georgia
N
Service Layer Credits: Source: ESRI, DigitalGlobe, GeoEye, Earthstar Graphics, USDA, USGS, AeroGRID, IGN, World Imagery
Source: Georgia GIS Data Clearinghouse, Cobb County, Airports
Figure 1.2: Airport Property Boundary
(Aerial Photograph)
0
1,400
2,800
Feet

The following ADG classifications are based on the wingspans of the aircraft to be served:

- Group I – Aircraft having wingspans of up to but not including 49 feet
- Group II – Aircraft having wingspans of 49 feet up to but not including 79 feet
- Group III – Aircraft having wingspans of 79 feet up to but not including 118 feet

Aviation forecasts for Cobb County International Airport indicate that the most demanding aircraft meeting the Airport's operational threshold of 500 itinerant operations during 2014 was not a single aircraft, but a combination of C-II jet aircraft, the most demanding of which were the Gulfstream 200 and Embraer ERJ 145. The Gulfstream 200 has an approach speed of 121 knots, a wingspan of 58.1 feet, and a Maximum Take-off Weight (MTOW) of 35,450 pounds. The Embraer ERJ 145 has an approach speed of 135 knots, a wingspan of 65.8 feet, and a MTOW of 48,501 pounds. By 2025, the ultimate design aircraft is expected to include a group of D-III category aircraft. The most demanding D-III aircraft that currently utilizes the Airport is the Gulfstream 550, which has an approach speed of 155 knots, a wingspan of 94 feet, and a MTOW of 90,000 pounds.

The operations forecast illustrates the historic and anticipated operations at the Airport broken down by the aircraft ARC classification (**Table 1.1**). The design aircraft category up until 2020 is a C-II aircraft, as described above. By 2020, Category D and Group II aircraft operations are forecast to increase to over 500; therefore, the critical aircraft is a combination of D and II aircraft, and the ARC becomes D-II. By 2025, the design aircraft is a D-III category aircraft, such as the Gulfstream 5. The operations forecast was approved by GDOT on January 27, 2016 (see **Appendix A**). According to the approved forecast, the Airport supported 276 operations of D-III aircraft in 2014 (see **Table 1.1**). By the year 2020, that number is anticipated to increase to over 364 D-III operations, which is a 24.2 percent increase over the 6-year span. D-III aircraft are expected to reach 489 operations by the year 2025, which is a 25.6 percent increase over that 5-year period. By 2030, the trend is expected to slow slightly, with D-III operations anticipated to reach 644, which is a 24.1 percent increase. Finally, D-III aircraft are anticipated to reach 807 operations at the Airport by the year 2035, which is a 20.2 percent increase over the 5-year period. Forecast data provided by GDOT in January 2020 suggest that the actual operations have been keeping up with the forecasted operations presented in **Table 1.1**, which supports the justification for implementation of the Proposed Action (see **Appendix A**).

The 2003 Georgia Aviation System Plan provides the state with a top-down analysis of its airports and provides recommendations for facility improvements at each public airport in Georgia in order to improve the overall state system. Cobb County International Airport is classified as a Level III airport, a Business Airport of Regional Impact, and an airport of significant importance to the state's aviation needs. It is taking measures to improve the safety condition of the airfield for the C-II aircraft currently utilizing the facility and to improve the existing facility to accommodate future D-III aircraft operations. A major reconstruction of Runway 9-27 was completed in 2004. This project extended the runway from 5,000 feet to 6,311 feet with a 1,062-foot long displaced threshold at the Runway 9 End. The current runway length is sufficient for 100 percent of small airplanes, 100 percent of the large airplane (less than 60,000 pounds) fleet operating at 60 percent useful load, and 75 percent of the large airplane fleet operating at 90 percent useful load.[2]

[2] Michael Baker International, Inc. (2017). *2017 Airport Master Plan Update – Cobb County International Airport* (September 1, 2017).

Table 1.1
Operations Forecast Grouped by Airport Reference Code Elements

2014				
	I	II	III	**Total**
A	44,306	3,349	-	**47,655**
B	7,902	11,549	10	**19,461**
C	640	688	11	**1,339**
D	69	36	276	**380**
Helicopter				**2,052**
Other				**684**
Total	**52,917**	**15,622**	**296**	**71,572**

2020				
	I	II	III	**Total**
A	43,210	3,132		46,342
B	7,807	12,332	13	20,153
C	818	888	18	1,724
D	77	118	364	559
Helicopter				2,295
Other				699
Total	**51,912**	**16,470**	**395**	**71,771**

2025				
	I	II	III	**Total**
A	42,685	3,085		**45,770**
B	7,531	12,736	15	**20,282**
C	872	985	23	**1,880**
D	77	132	489	**697**
Helicopter				**2,633**
Other				**758**
Total	**51,165**	**16,937**	**527**	**72,020**

2030				
	I	II	III	**Total**
A	43,094	3,105		**46,199**
B	7,387	13,285	16	**20,688**
C	912	1,077	30	**2,019**
D	77	145	644	**865**
Helicopter				**3,013**
Other				**828**
Total	**51,469**	**17,612**	**690**	**73,612**

2035				
	I	II	III	**Total**
A	43,634	3,135		**46,770**
B	7,249	13,840	17	**21,106**
C	926	1,179	37	**2,142**
D	76	157	807	**1,039**
Helicopter				**3,389**
Other				**892**
Total	**51,885**	**18,312**	**861**	**75,338**

Source: Mary Lynch RYY Airport Activity Forecast, 2015

The existing centerline of Taxiway 'A' is located 250 feet from the centerline of Runway 9-27. That runway/taxiway separation is 50 feet short of the FAA standard for a C-II airport (300 feet) and 150 feet short of the FAA standard for a D-III airport (400 feet); it is subject to operational restrictions set forth in a May 15, 2013 Letter of Agreement between the Airport and the McCollum Air Traffic Control Tower that designates movement/non-movement areas and control of vehicular traffic on Airport movement areas. The reasonable build alternatives for this component of the Proposed Action would include relocation of Taxiway 'A' to provide a 400-foot separation, a 300-foot separation, a 321-foot separation, or a partial 400-foot and partial 321-foot separation.

The existing centerline of Taxiway 'B' is located 300 feet from the centerline of Runway 9-27; that runway/taxiway separation is in compliance with the FAA design standard for a C-II airport, but it is 100 feet short of the FAA design standard for a D-III airport.

Currently, the Airport has approximately 635,000 square feet of hangar storage capacity and is at 100 percent occupancy. Based on the most recent aeronautical forecast, the current deficiency of hangar space is estimated to be 83,560 square feet. By 2035, the Airport will need to increase its hangar capacity by an additional 337,080 square feet, for a total of 972,080 square feet of hangar storage capacity. The 2017 Master Plan Update also suggests that the Airport should plan for an additional 20 percent capacity beyond the forecasted projections so that the hangar capacity would be at 80 percent rather than 100 percent at the end of the planning period. Therefore, the ideal area of hangar storage space at RYY should be around 404,496 square feet by the year 2035.

There is no vacant space at the Airport that would be available to meet the hangar space capacity requirement, and the property is enclosed on all sides by existing roadways and commercial and industrial developments. Any landside capacity improvements, including relocation of two helicopter pads and 15 tie-down spaces from the existing south basing area associated with the Taxiway 'B' relocation, would have to occur beyond the current boundary of the Airport; therefore, property acquisition and/or redevelopment of current facilities would be necessary.

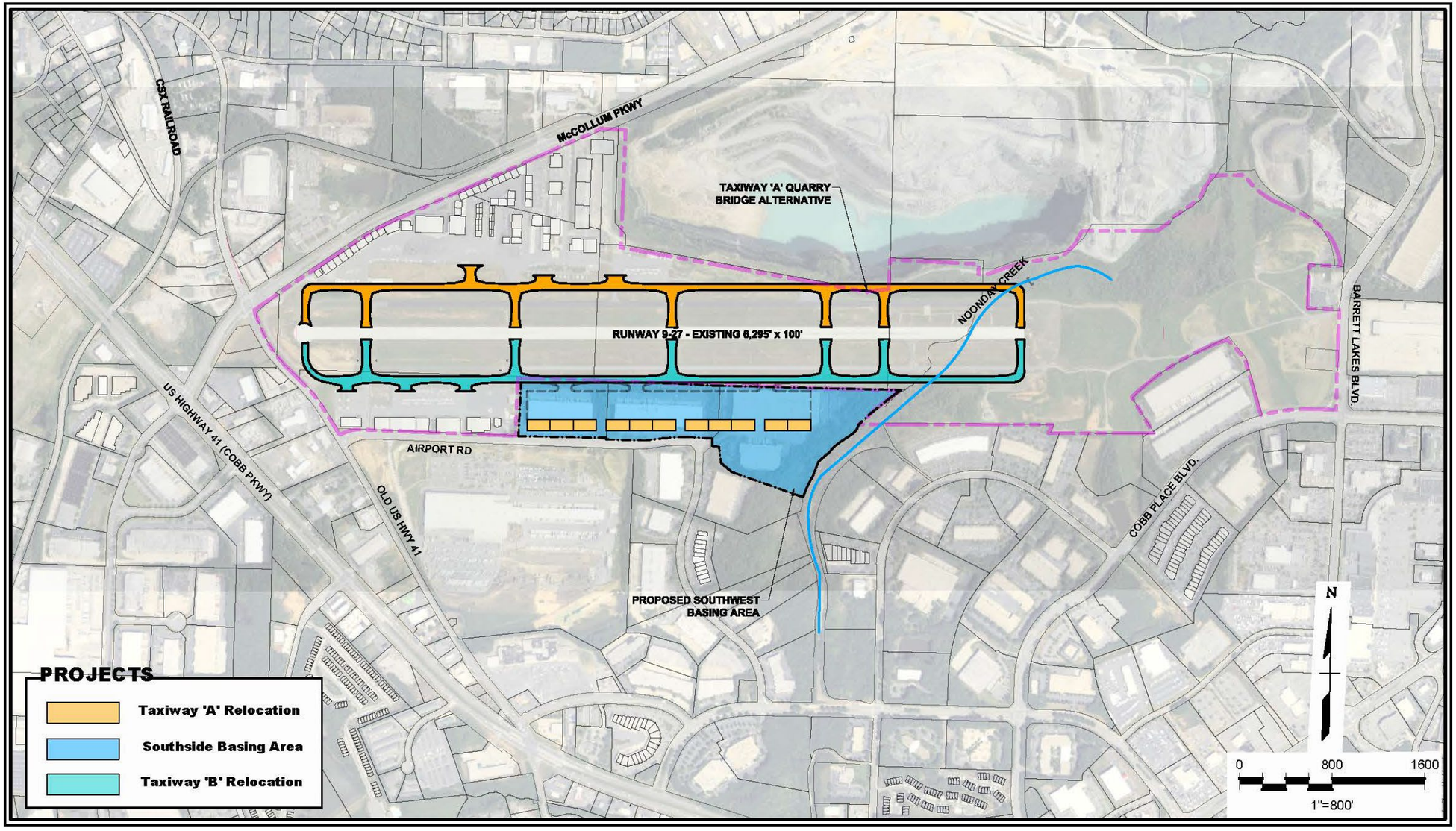
1.2 DESCRIPTION OF THE PROPOSED ACTION

The Proposed Action comprises three projects that are included in the 2017 Master Plan Update and the Airport's Capital Improvement Plan (CIP) and are recommended for implementation following regulatory approvals (**Exhibit A – Phasing of Master Plan Improvement Projects**):

Taxiway 'A' Relocation – The objective of relocating the existing Taxiway 'A' is to meet FAA's 400-foot runway/taxiway separation design standard for an ARC D-III Airport. This project would relocate existing Taxiway 'A' to the north. Four build alternatives for the Taxiway 'A' relocation were assessed in the preliminary screening, as summarized below:

Alternative 1b (400-foot runway/taxiway separation) -

- acquire a permanent easement from the adjacent quarry to accommodate the taxiway bridge;
- relocate Taxiway 'A' 150 feet north, bridged along the quarry edge at Taxiways A4 and A5;
- relocate the Taxiway Safety Area (TSA) and Taxiway Object Free Area (TOFA) 150 feet north;
- demolish/reconstruct portions of the northside ramp and the hold apron;
- relocate the existing segmented-circle NAVAID and weather equipment;
- relocate 23 tie-down spaces to Parcels 1650, 1640, and 2155 (Southside Basing Area); and
- permit/construct a 102-foot extension of the Noonday Creek box culvert and a 485-foot culvert at Aquatic Resource 2 / Aquatic Resource 3.



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Michael Baker INTERNATIONAL

COBB COUNTY INTERNATIONAL AIRPORT
McCOLLUM FIELD
KENNESAW, GEORGIA

PHASING OF MASTER PLAN IMPROVEMENT PROJECTS

EXHIBIT A

Alternative 1c (321-foot to 400-foot runway/taxiway separation) –

- acquire a permanent easement from the owner of the adjacent quarry to accommodate the TSA and TOFA grading;
- request a Memorandum of Agreement from the FAA to modify the runway/taxiway separation standard at the relocated Taxiway 'A' to meet FAA design standards for an ARC D-III Airport;
- relocate Taxiway 'A' including TSA and TOFA 150 feet north along the western 2/3 of the taxiway length and 71 feet north along the eastern 1/3 of the taxiway length;
- demolish/reconstruct portions of the northside ramp and the hold apron;
- relocate the existing segmented-circle NAVAID and weather equipment;
- relocate 23 tie-down spaces to Parcels 1650, 1640, and 2155 (Southside Basing Area); and
- permit/construct a 102-foot extension of the Noonday Creek box culvert and a 485-foot culvert at Aquatic Resource 2 / Aquatic Resource 3.

Alternative 1d (321-foot runway/taxiway separation) -

- acquire a permanent easement from the owner of the adjacent quarry to accommodate the TSA and TOFA grading;
- request a Memorandum of Agreement from the FAA to modify the runway/taxiway separation standard at the relocated Taxiway 'A' to meet FAA design standards for an ARC D-III Airport;
- relocate Taxiway 'A' including TSA and TOFA 71 feet north along the entire length of the taxiway;
- demolish/reconstruct portions of the northside ramp and the hold apron;
- relocate the existing segmented-circle NAVAID and weather equipment;
- relocate 9 tie-down spaces to Parcels 1650, 1640, and 2155 (Southside Basing Area); and
- permit/construct a 102-foot extension of the Noonday Creek box culvert and a 485-foot culvert at Aquatic Resource 2 / Aquatic Resource 3.

Alternative 1e (300-foot runway/taxiway separation) -

- acquire a permanent easement from the owner of the adjacent quarry to accommodate the TSA and TOFA grading;
- request a Memorandum of Agreement from the FAA to modify the runway/taxiway separation standard at the relocated Taxiway 'A' to meet FAA design standards for an ARC D-III Airport;
- relocate Taxiway 'A' including TSA and TOFA 50 feet north along the entire taxiway;
- demolish/reconstruct portions of the northside ramp and the hold apron;
- relocate the existing segmented-circle NAVAID and weather equipment; and
- permit/construct a 102-foot extension of the Noonday Creek box culvert and a 485-foot culvert at Aquatic Resource 2 / Aquatic Resource 3.

Southside Basing Area – The objectives of constructing a Southside Basing Area are: (1) to accommodate grading for the Taxiway 'B' Relocation component of the Proposed Action; (2) to accommodate future development of aircraft storage space that would help bring the percentage of stored aircraft from 40 percent to 70 percent; and (3) to accommodate aircraft parking spaces for relocating the aircraft parking spaces that would be displaced as part of the Proposed Action. One build alternative for the Southside Basing Area was assessed in the preliminary screening:

Alternative 2b (Southside Basing Area) -

- demolish and remove existing structures from Parcels 1650, 1640, and 2155 to be acquired as part of Alternative 3b of the Proposed Action;
- prepare the site as needed to provide developable space for future aircraft storage; and
- provide aircraft parking spaces for the spaces that would be displaced from the Airport with implementation of Taxiway 'A' and Taxiway 'B' elements of the Proposed Action.

Taxiway 'B' Relocation – The objective of relocating the existing Taxiway 'B' is to meet FAA's 400-foot runway/taxiway separation design standard for an ARC D-III Airport. This component of the Proposed Action would relocate existing Taxiway 'B' to the south. Two build alternatives for the Taxiway 'B' relocation were assessed in the preliminary screening:

Alternative 3b (400-foot runway/taxiway separation) -

- acquire Parcels 1650, 1640, and 2155 in fee to accommodate the required grading for the relocation of Taxiway 100 feet south, outside the existing Airport boundaries;
- relocate Taxiway 'B' and its TSA and TOFA 100 feet south;
- request a Modification of Standards from the FAA for the western end of the proposed taxiway as a Part 77 obstruction (primary surface violation), to avoid a ramp reconstruction;
- relocate two helicopter pads and 17 tie-down spaces to Parcels 1650, 1640, and 2155; and
- permit/construct a 76-foot extension of the Noonday Creek box culvert (**Appendix B – Agency Correspondence**).

Alternative 3c (300- to 400-foot runway/taxiway separation) -

- relocate the segment of existing Taxiway 'B' (and its TOFA and TSA) between the Runway 9 End and Taxiway B2 100 feet south;
- relocate Taxiway 'B' (and its TSA and TOFA) between Taxiways B5 and B6 100 feet south;
- request a Memorandum of Agreement from the FAA to modify the runway/taxiway separation standard at the relocated Taxiway 'B' to meet FAA design standards for an ARC D-III Airport;
- request a Modification of Standards from the FAA for the western end of the proposed taxiway as a Part 77 obstruction (primary surface violation), to avoid a ramp reconstruction;
- relocate two helicopter pads and 17 tie-down spaces to Parcels 1650, 1640, and 2155 in conjunction with implementation of Alternative 2b, the Southside Basing Area; and
- permit/construct a 76-foot extension of the Noonday Creek box culvert (see **Appendix B**).

1.3 PURPOSE AND NEED STATEMENT

The Proposed Action is needed to accommodate operational growth at the Airport over the planning period of this EA. Each element of the Proposed Action is necessary for the Airport to meet current FAA airport design standards and safety requirements and to help the Airport accommodate the changing operational demands of the facility.

Runway Centerline to Parallel Taxiway Centerline

The Airport meets the current ARC C-II standard of a 300-foot runway/taxiway separation on the Taxiway 'B' (south) side of the airfield. However, the Airport does not meet this standard on the north side of the airfield, where the distance from the runway centerline to the Taxiway 'A' centerline is 250 feet. With an airfield upgrade to ARC D-III, the runway/taxiway separation standard would increase to 400 feet. As a result, both the Taxiway 'A' and Taxiway 'B' relocation projects are needed to meet the ARC D-III runway/taxiway separation design standards.

Landside Requirements

Aircraft hangar requirements for a General Aviation facility are a function of the number of based aircraft and the types of aircraft to be accommodated. The Airport currently has 630,000 square feet of hangar storage space equating to 127 spaces for aircraft. These 127 spaces are provided by 63 hangars that provide less than 5,000 square feet of space and 64 spaces in hangars greater than 5,000 square feet in area. In 2014, 320 aircraft were based at the Airport: 218 single-engine, 32-multi-engine, 50 jets, and 10 helicopters. Of these aircraft, 56 percent were stored in either a T-hangar, a conventional hangar, or a corporate hangar. The Georgia Aviation System Plan recommends that Level III airports provide hangar storage for at least 70 percent of their based aircraft fleet.

Currently, only 40 percent of the single-and multi-engine piston aircraft based at the Airport occupy hangars, due to a lack of hangar space. It is anticipated that more owners would choose to store their aircraft in a hangar as opposed to a tie-down, if more hangar space was available. For planning purposes, it is typically assumed that 80 percent of the forecasted demand of single- and multi-engine piston aircraft are stored in hangars. More expensive aircraft like turbine engine aircraft, jets, and helicopters are almost always stored in hangars. Therefore, 100 percent of these types of aircraft are assumed to be stored in hangars.

In 2020, 272 aircraft would require hangar space. By 2035, the demand would increase to 302 aircraft. The anticipated percentage of aircraft requiring hangars is 85 percent in 2020 and 87 percent in 2035. If these aircraft can be accommodated, the Airport would meet the Georgia Aviation System Plan recommendation of providing hangar space to 70 percent of the based aircraft fleet. Additionally, with implementation of the Taxiway 'A' and Taxiway 'B' relocations as described in the 2017 Master Plan Update, a total of up to 42 aircraft parking spaces would be displaced from the existing north apron area and south basing area. The Southside Basing Area element of the Proposed Action would accommodate those displaced aircraft parking spaces, and would help meet the demand for more hangar space at the Airport.

1.4 REQUESTED FEDERAL ACTION

This EA has been prepared to comply with the requirements of the National Environmental Policy Act (NEPA) and other applicable environmental regulations. The requested Federal Action is the unconditional approval by the FAA of the Sponsor-Preferred Alternative for each of the proposed projects discussed in this EA as shown on the ALP, and possible Federal funding.

CHAPTER 2. ALTERNATIVES ANALYSIS

2.1 INTRODUCTION

FAA Order 1050.1F and the *Airport Environmental Handbook* outline the procedures to be followed in considering alternatives for a proposed action, including reasonable build alternatives and a "no-action" alternative. The *Airport Environmental Handbook* states in part that the alternatives to be considered in the preparation of an EA should be considered "… to the degree commensurate with the nature of the proposed action." An alternatives analysis of the No-Action Alternative and the reasonable build alternatives for each element of the Proposed Action was conducted as part of this EA.

2.2 DESCRIPTION OF ALTERNATIVES

The following sections describe the No-Action Alternative and the reasonable build alternatives for each element of the Proposed Action**.**

Taxiway 'A' Relocation

Alternative 1a – No Action

Alternative 1a would represent the taking of no action to relocate Taxiway 'A' (see **Chapter 1 - Figure 1.2**). Selection of this alternative would not result in any social or environmental impacts associated with construction of the proposed improvements or the operation of a modified airfield.

Alternative 1b – Relocate Taxiway 'A' to Provide a 400-foot Runway/Taxiway Separation

Alternative 1b, the Sponsor-Preferred Alternative, would relocate Taxiway 'A' to provide a 400-foot runway/taxiway separation needed to meet FAA design standards for an ARC D-III airport (**Figure 2.1**). The relocated TOFA would encroach into the existing apron area and into the adjacent quarry property. At Taxiways A-4 and A-5, the TOFA would extend over the edge of the rock quarry, and a counterbalanced slab-style bridge structure spanning 200 linear feet would be constructed along that portion of the quarry property.

The northside ramp would be reconstructed to meet minimum grade requirements, and the existing segmented-circle NAVAID and weather equipment would be relocated. A culvert would be constructed to convey surface water from a stream and associated wetland at the western end of the taxiway and into an existing culvert inlet, and the Noonday Creek box culvert would be extended to accommodate the relocated TOFA.

Alternative 1c – Relocate Taxiway 'A' to Provide a 321 to 400-foot Runway/Taxiway Separation

Alternative 1c would provide a 400-foot wide runway/taxiway separation along the northside ramp area, but at Taxiways A-4 and A-5 the separation would be 321 feet to avoid the need for constructing a taxiway bridge along the edge of the quarry (**Figure 2.2**). The relocated TOFA would encroach into the existing apron area and into the adjacent quarry property. The northside ramp would be reconstructed to meet minimum grade requirements, and the existing segmented-circle NAVAID and weather equipment would be relocated. A culvert would be constructed to convey surface water from a stream and associated wetland at the western end of the taxiway and into an existing culvert inlet, and the Noonday Creek box culvert would be extended to accommodate the relocated TOFA.

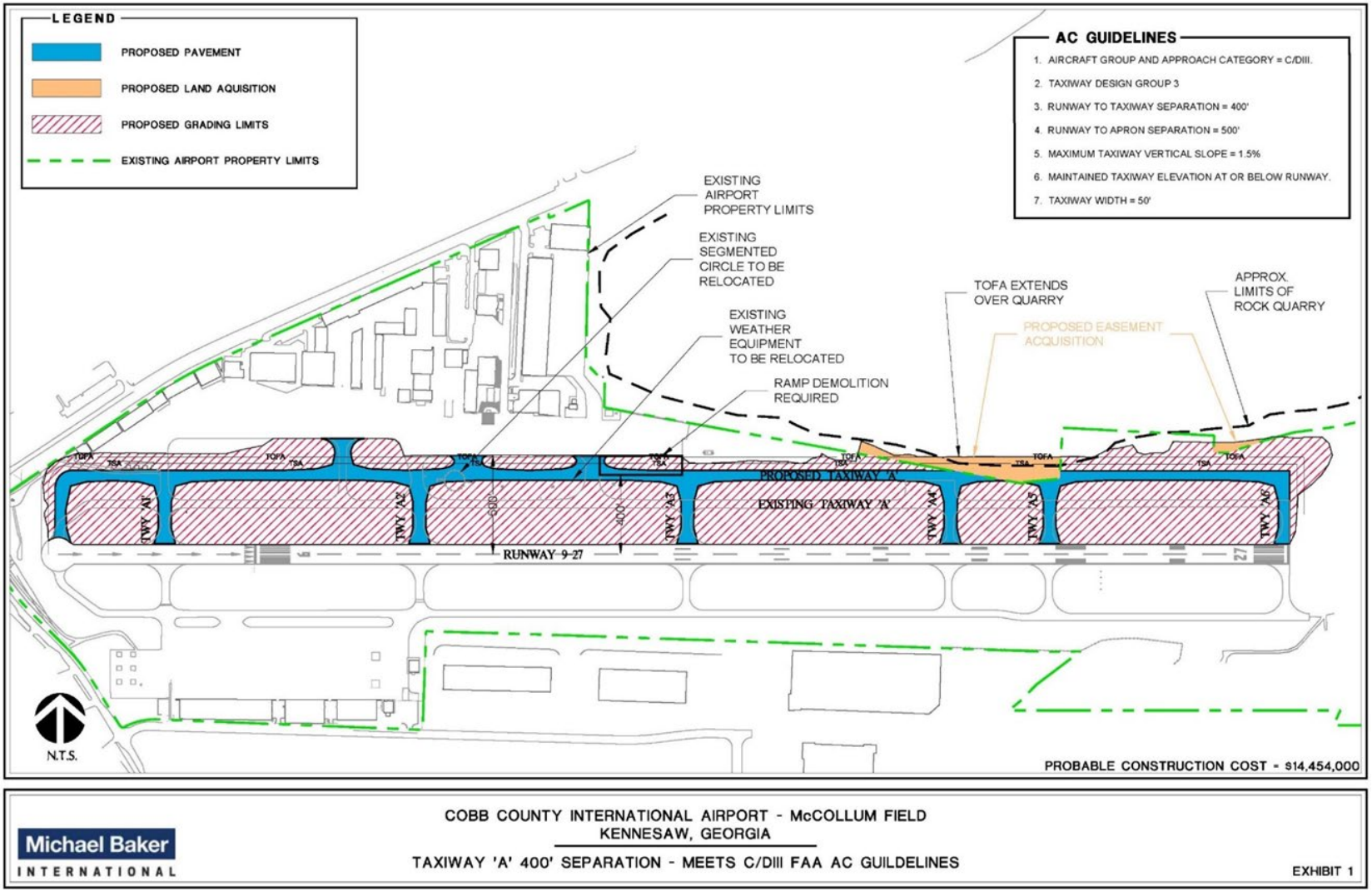


Figure 2.1 – Taxiway 'A' Relocation, Alternative 1b (400-foot Runway/Taxiway Separation)

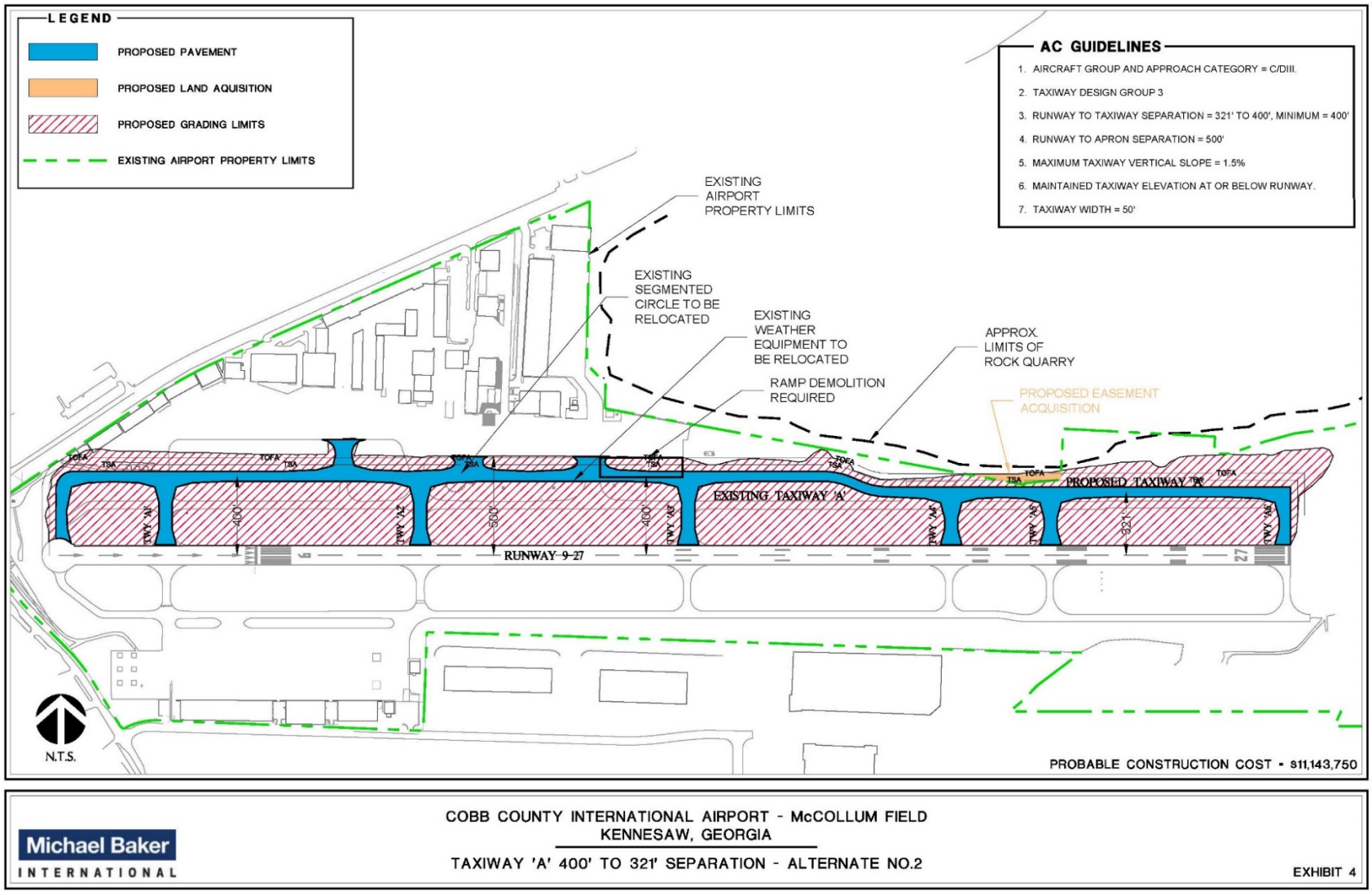


Figure 2.2 – Taxiway 'A' Relocation, Alternative 1c (321 to 400-foot Runway/Taxiway Separation)

Alternative 1d – Relocate Taxiway 'A' to Provide a 321-foot Runway/Taxiway Separation

Alternative 1d would provide a 321-foot runway/taxiway separation along the entire length of Taxiway 'A' (**Figure 2.3**). The existing northside ramp and hold apron would be demolished, and the existing segmented-circle NAVAID and weather equipment would be relocated. A culvert would be constructed to convey surface water from a stream and associated wetland at the western end of the taxiway into an existing culvert inlet, and the Noonday Creek box culvert would be extended to accommodate the TOFA.

Alternative 1e – Relocate Taxiway 'A' to Provide a 300-foot Runway/Taxiway Separation

Alternative 1e would provide a 300-foot runway/taxiway separation (**Figure 2.4**). The existing hold apron would be demolished (the northside ramp would not require demolition), and the existing segmented-circle NAVAID and weather equipment would be relocated. A culvert would be constructed to convey surface water from a stream and associated wetland at the western end of the taxiway into an existing culvert inlet, and the Noonday Creek box culvert would be extended to accommodate the relocated TOFA.

Southside Basing Area

Alternative 2a – No Action

Alternative 2a would represent the taking of no action to construct the Southside Basing Area (see **Chapter 1 - Figure 1.2**). Selection of this alternative would not result in any social or environmental impacts associated with construction of the proposed improvements or the operation of a modified airfield.

Alternative 2b – Construct the Southside Basing Area

Alternative 2b, the Sponsor-Preferred Alternative, would demolish and remove three buildings on three parcels of land located adjacent to the Airport at Airport Road to provide a Southside Basing Area (**Figure 2.5**). The three parcels, totaling 41.17 acres, would be acquired as part of Alternative 3b for the Taxiway 'B' relocation, as discussed in the following section.

The Southside Basing Area would accommodate the aircraft parking spaces that would be displaced from the existing north apron as part of Alternatives 1b, 1c, or 1d, as well as those displaced from the existing south basing area as part of Alternatives 3b or 3c. Implementation of Alternative 2b would also provide a location suitable for the future development of hangared aircraft storage, which would help meet the Airport's forecasted need to bring the percentage of stored aircraft from 40 percent to 70 percent.

Taxiway 'B' Relocation

Alternative 3a – No-Action

Alternative 3a would represent the taking of no action to relocate Taxiway 'B' (see **Chapter 1 - Figure 1.2**). Selection of this alternative would not result in any social or environmental impacts associated with construction of the proposed improvements or the operation of a modified airfield.

Alternative 3b – Relocate Taxiway 'B' to Provide a 400-foot Runway/Taxiway Separation

Alternative 3b, the Sponsor-Preferred Alternative, would relocate the existing Taxiway 'B' to provide a 400-foot runway/taxiway separation as needed to meet FAA design standards for an ARC D-III Airport (**Figure 2.6**). The project area for this alternative would extend into three

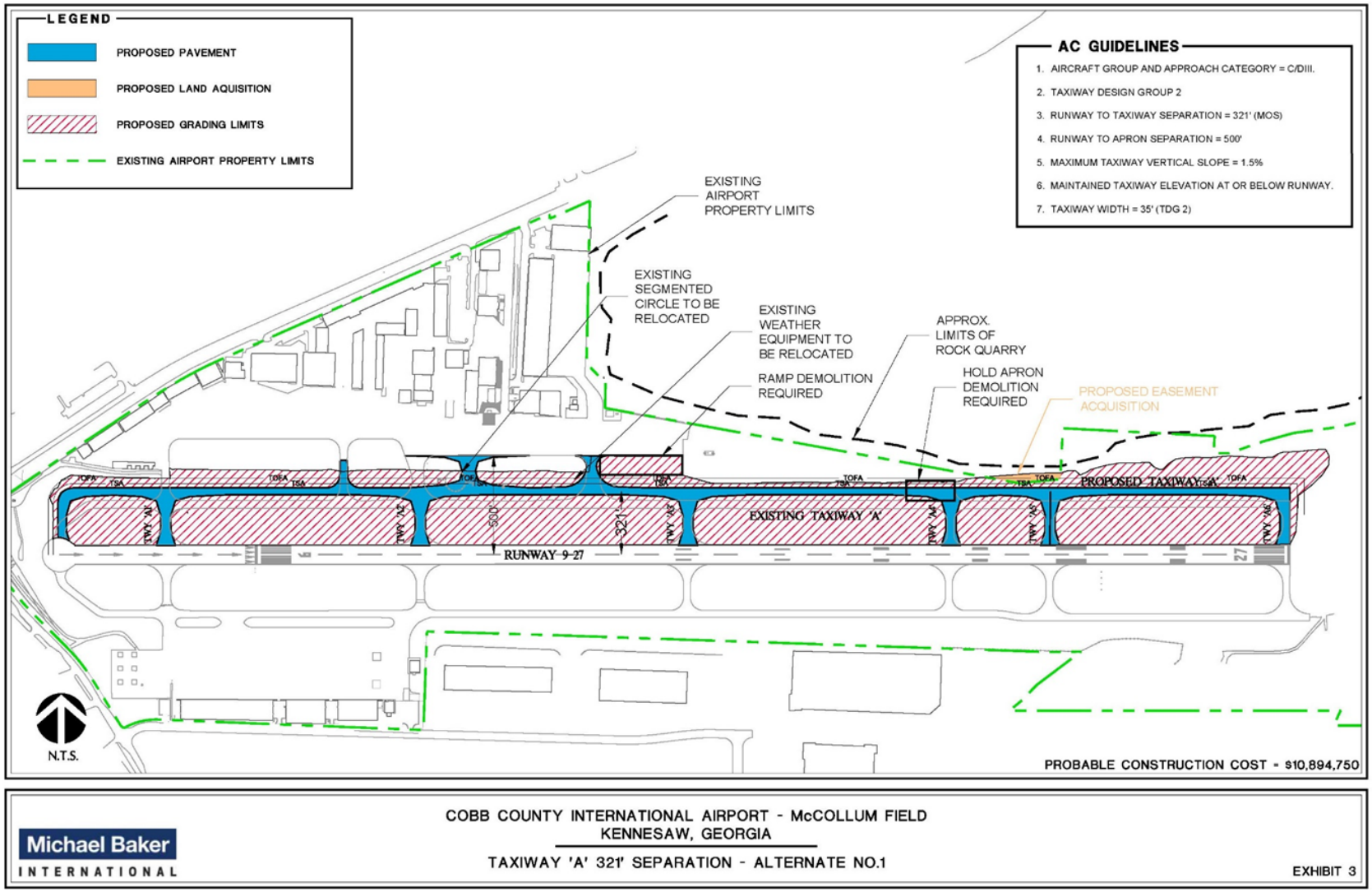


Figure 2.3 – Taxiway 'A' Relocation, Alternative 1d (321-foot Runway/Taxiway Separation)

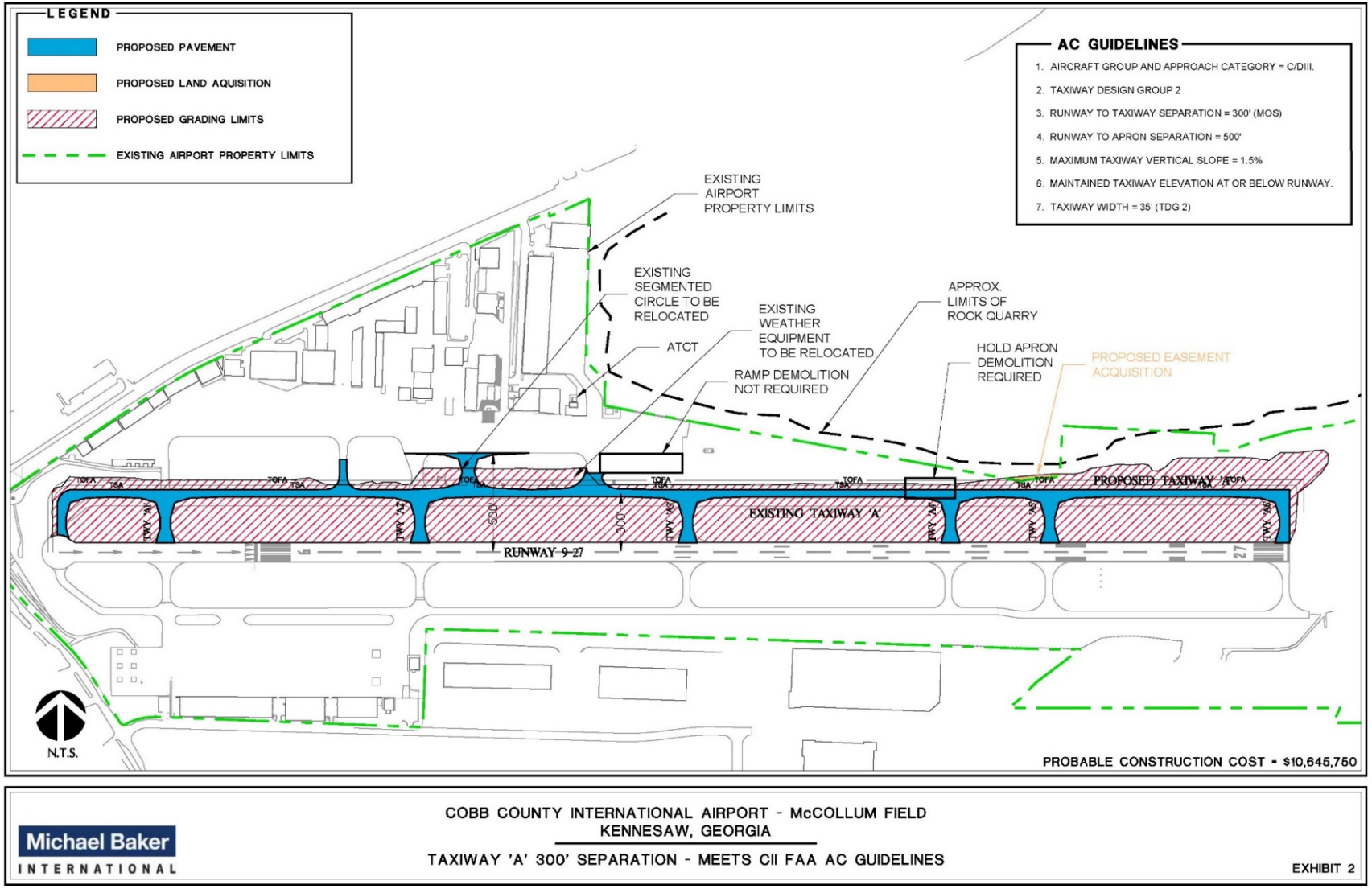


Figure 2.4 – Taxiway 'A' Relocation, Alternative 1e (300-foot Runway/Taxiway Separation)

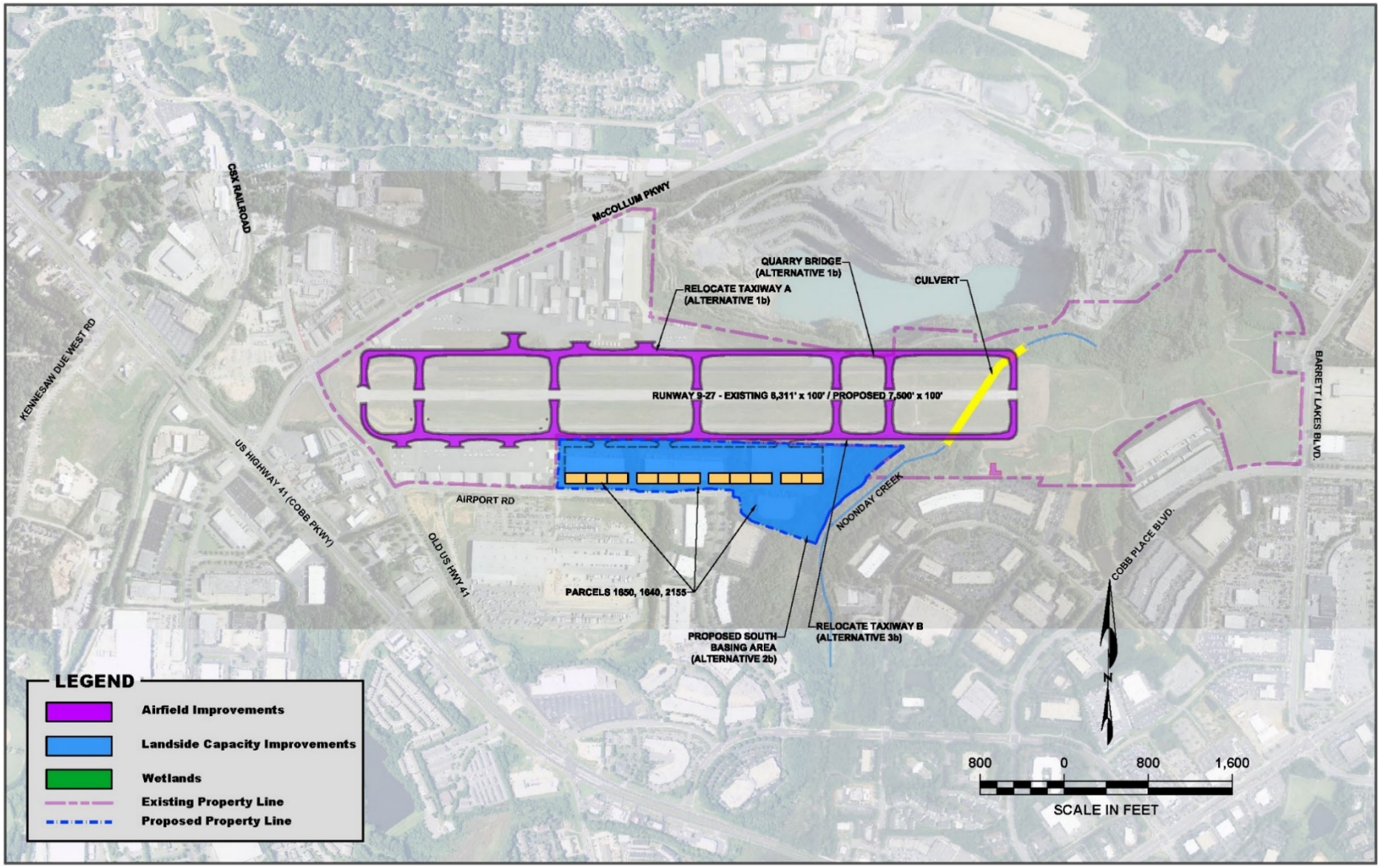


Figure 2.5 – Southside Basing Area, Alternative 2b

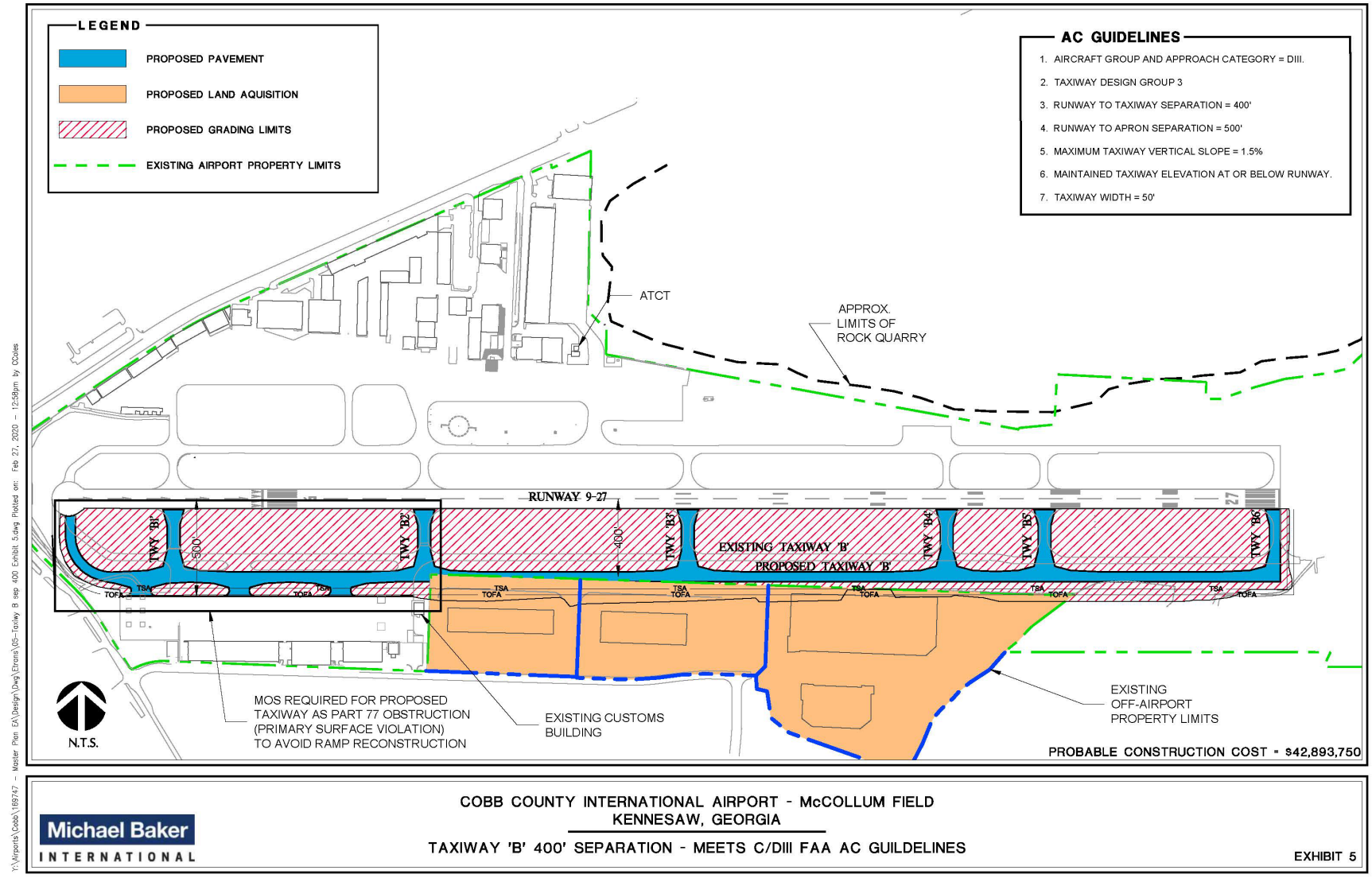


Figure 2.6 – Taxiway 'B' Relocation, Alternative 3b (400-foot Runway/Taxiway Separation)

parcels adjacent to the Airport at Airport Road (Parcels 1650, 1640, and 2155). Acquisition of the adjacent land would be necessary to accommodate the TOFA. The three parcels also would accommodate the Sponsor-Preferred Alternative for Alternative 2b, Southside Basing Area. The Noonday Creek box culvert would be extended within a deed restricted area of the Airport property to accommodate the TOFA (see **Appendix B**).

Alternative 3c – Relocate Taxiway 'B' to Provide a 300 to 400-foot Runway/Taxiway Separation

Alternative 3c would relocate portions of Taxiway 'B' to provide a 400-foot runway/taxiway separation at the eastern and western ends of the taxiway and a 300-foot separation within the central portion of the taxiway (**Figure 2.7**). This alternative would encroach on the south basing area, and it would not include acquisition of adjacent Parcels 1650, 1640, and 2155. The Noonday Creek box culvert would be extended within a deed restricted area of the Airport property to accommodate the TOFA (see **Appendix B**).

2.3 ALTERNATIVES SCREENING PROCESS

Three improvement projects identified in the *2017 Airport Master Plan Update – Cobb County International Airport* are being evaluated in this EA: Taxiway 'A' Relocation; Southside Basing Area; and Taxiway 'B' Relocation (see **Chapter 1**). Collectively, these projects constitute the Proposed Action. The reasonable build alternative(s) for each of the three Master Plan improvement projects underwent a preliminary screening to identify the alternatives that would be evaluated in greater detail for their potential environmental impacts.

The screening process considered each alternative's consistency with the purpose of and need for the Proposed Action, which is to accommodate operational growth and meet the demand for hangar space while conforming to federal and state operational, safety, and airport design requirements. Constructability, cost, and environmental impacts were also considered in the screening. Alternatives that met the screening criteria were carried forward to a more detailed evaluation of their potential environmental impacts relative to their corresponding no-action alternative, as required by the Council on Environmental Quality (CEQ) regulations. The criteria used in the alternatives screening process are described in greater detail in the following sections.

Screening Criteria

The improvements were considered to meet the purpose of and need for the Proposed Action if they were consistent with the following criteria, as applicable:

Conforms to Airport Safety and Design Standards – The projects would improve the airfield to support the most demanding aircraft utilizing the Airport, as well as the support the safety margins of other C and D category aircraft. The conforming improvements would provide the following:

- A 400-foot runway/taxiway separation to meet FAA ARC D-III airport design standards;
- An instrument approach minimum of ¾-statute mile; and
- Runway approaches that are clear of obstructions.

Accommodates Operational Growth – The improvements would accommodate operational growth at the Airport over the planning period of this EA.

Accommodates Demand for Hangar Space – The improvements would meet the Georgia Aviation System Plan recommendation to provide hangar space to 70 percent of its based aircraft fleet.

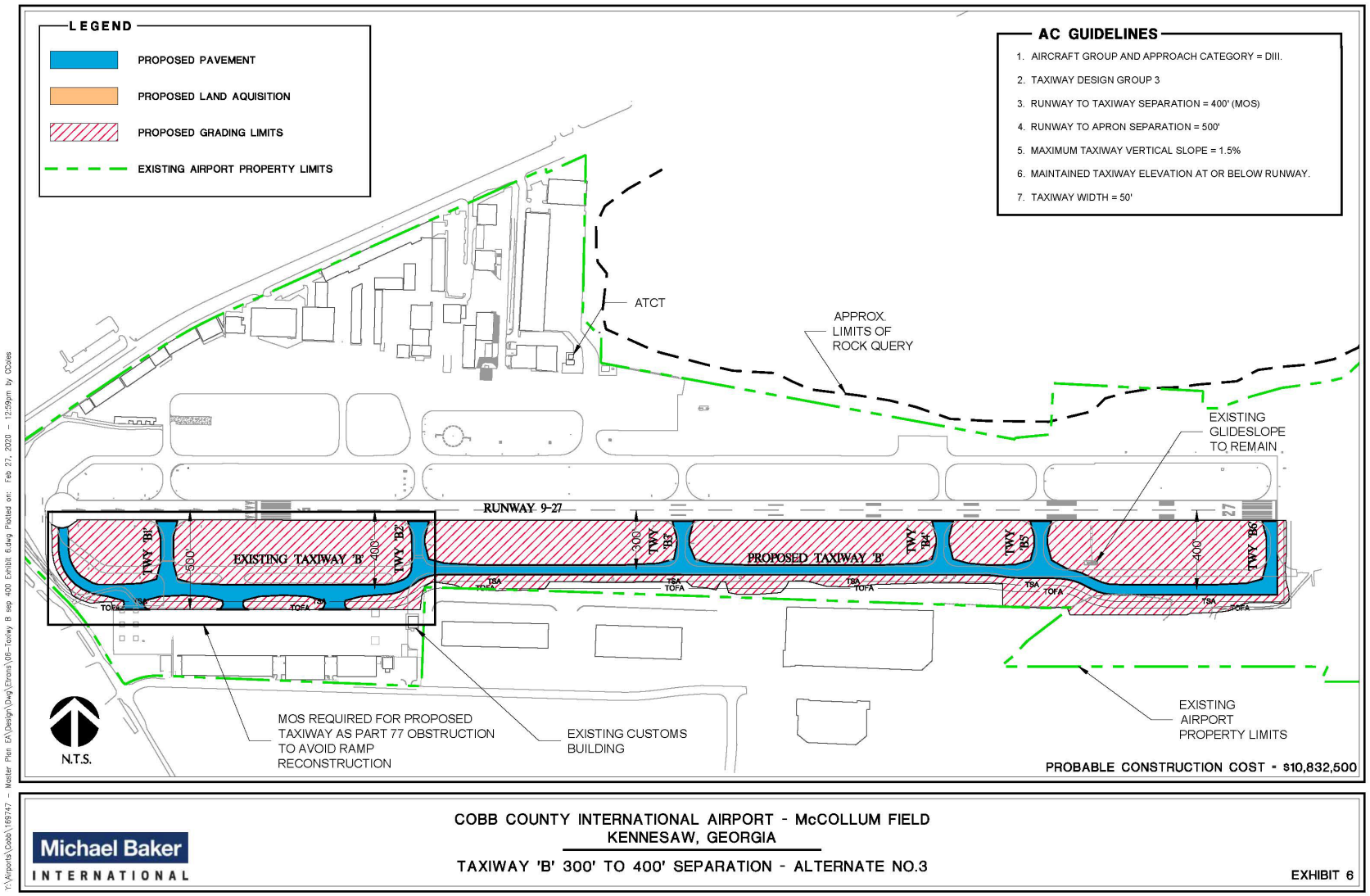


Figure 2.7 – Taxiway 'B' Relocation, Alternative 3c (300-foot to 400-foot Runway/Taxiway Separation)

A preliminary evaluation was conducted of the potential social and environmental impacts associated with each of the alternatives that would meet the purpose of and need for the Proposed Action. Constructability and cost considerations were also included in the preliminary screening analysis. The alternatives for each element of the Proposed Action that would meet the purpose of and need for the Proposed Action and that would minimize social and environmental impacts were carried forward as the Sponsor-Preferred Alternatives for a more detailed analysis of their social and environmental impacts relative to their corresponding no-action alternative.

2.4 RESULTS OF THE ALTERNATIVES SCREENING

The evaluation of the No-Action and reasonable build alternatives in relation to the screening criteria is discussed in the following paragraphs.

No-Action Alternatives 1a, 2a, and 3a

Alternatives 1a, 2a, and 3a, the No-Action alternatives, would not meet the purpose of and need for the Proposed Action, because there would be no change from the existing conditions at the Airport (see **Chapter 1 - Figure 1.2**):

- Alternatives 1a and 3a would not provide the runway to taxiway separations needed to support the most demanding aircraft utilizing the Airport, nor would they support the safety margins of other C and D category aircraft.
- Selection of Alternative 2a in conjunction with Alternative 3a would not provide an area on the Airport property that would accommodate the additional aircraft forecasted to operate at the Airport by 2020.
- Selection of Alternative 2a in conjunction with implementation of Alternatives 1b, 1c or 1d and Alternatives 3b or 3c would would result in a loss of up to 42 aircraft parking spaces from the Airport through encroachment of the relocated TOFAs into the existing northside and southside basing areas, without providing a location on the Airport for relocating those aircraft parking spaces.

Build Alternatives 1b, 1c, 1d, and 1e for Taxiway 'A' Relocation

Alternative 1b

Alternative 1b, the Sponsor-Preferred Alternative, would relocate Taxiway 'A' to provide a 400-foot runway/taxiway separation, to help the Airport meet FAA design standards for a D-III airport (see **Figure 2.1**). At Taxiways A-4 and A-5 where the TOFA would extend over the adjacent rock quarry, acquisition of an easement from the quarry owner would be required to allow for construction of a $2.5 million counterbalanced slab-style bridge structure spanning 200 linear feet along the edge of the quarry.

This alternative would include permitting and construction of a culvert to carry surface water from the stream and wetland at the western portion of the taxiway area (involving approximately 485 lf of perennial stream impacts and 0.42 acre of wetland impacts) and an approximately 102-foot extension of the Noonday Creek box culvert, involving approximately 127 lf of perennial stream impacts and approximately 0.09 acre of impacts to habitat for the federally protected Cherokee darter and other aquatic species. Construction would impact approximately 2.58 acres of regulated floodplain resources.

Construction would also involve the removal of approximately 0.42 acre of bottomland hardwood forest and 1.37 acres of upland scrub-shrub habitat. The removal of 0.42 acre of bottomland hardwood forest is considered to represent a minor impact to the federally protected northern long-eared bat, because seasonal restrictions on tree clearing would be included in the construction contract that would avoid or minimize impacts to individual roosting bats, and there is ample similar habitat in the nearby vicinity. In total, approximately 52.85 acres of vegetated terrestrial habitats would be altered from one habitat type to another.

The relocated TOFA would encroach into the existing apron area, displacing 23 tie-down spaces. Those spaces would be relocated to the proposed Southside Basing Area with implementation of Alternative 3b (Taxiway 'B' relocation with 400-ft runway-taxiway separation, including acquisition of Parcels 1650, 1640, and 2155). The Airport would lose the 23 existing aircraft parking spaces if Parcels 1650, 1640, and 2155 are not acquired as part of the Proposed Action.

Alternative 1b would meet the purpose of and need for the Proposed Action with the concurrent implementation of Alternative 3b. The estimated cost associated with Alternative 1b is approximately $19.5 million in 2017 dollars, including the value of potential future lost mining revenue that would be part of the easement acquisition.

Alternatives 1c, 1d, and 1e

Alternatives 1c, 1d, and 1e also would relocate Taxiway 'A' to help the Airport meet FAA design standards for a D-III airport (see **Figures 2.2, 2.3, and 2.4**, respectively). However, each of these alternatives would require a Memorandum of Agreement with the FAA to modify the runway/taxiway separation standard at the relocated Taxiway 'A' in order to meet the FAA design criteria for an ARC D-III airport. That modification of standards would involve operational restrictions. The relocated TOFA would encroach into the existing apron area, necessitating acquisition of an easement from the quarry owner. A taxiway bridge would not be required.

Each of these alternatives would include permitting and construction of a culvert to carry surface water from the stream and wetland at the western portion of the taxiway area; the culvert construction would impact approximately 485 lf of perennial stream resource and 0.42 acre of wetland impacts. Each of the alternatives would also include an approximately 102-foot extension of the Noonday Creek box culvert, with each alternative involving approximately 127 lf of perennial stream impacts and approximately 0.09 acre of impacts to habitat for the federally protected Cherokee darter and other aquatic species. Construction of Alternatives 1c, 1d, and 1e would also impact approximately 2.06 acres, 1.92 acres, and 1.64 acres, respectively, of regulated floodplain resources.

Alternatives 1c and 1d would each involve the removal of approximately 0.42 acre of bottomland hardwood forest, and Alternative 1e would involve the removal of approximately 0.32 acre of bottomland forest. Additionally, implementation of Alternatives 1c, 1d, and 1e would involve the removal of approximately 1.03 acres, 0.94 acres, and 0.83 acres, respectively, of upland scrub-shrub habitat. The removal of bottomland hardwood forest (0.42 acre with Alternatives 1c and 1d and 0.32 acre with Alternative 1e) is considered to represent a minor impact to the federally protected northern long-eared bat, because seasonal restrictions on tree clearing would be included in the construction contract that would avoid or minimize impacts to individual roosting bats, and there is ample similar habitat in the nearby vicinity. Among Alternatives 1c, 1d, and 1e, approximately 51 acres, 44 acres, and 41 acres, respectively, of vegetated terrestrial habitats would be altered from one habitat type to another.

Alternative 1c would displace 23 tie-down spaces from the apron area, and Alternative 1d would displace 9 tie-down spaces from the apron area. The displaced tie-down spaces would be relocated to the proposed Southside Basing Area with concurrent implementation of Alternative 3b. The Airport would lose those existing aircraft parking spaces with implementation of Alternatives 1c, 1d, and 1e if Parcels 1650, 1640, and 2155 are not acquired as part of the Proposed Action. No tie-down spaces would be displaced with Alternative 1e.

Alternatives 1c, 1d, and 1e would not meet the purpose of and need for the Proposed Action as documented in Chapter 1 of this EA. Each of these alternatives would require an easement from the quarry owner to accommodate grading in the TOFA, but the runway/taxiway separations would still only meet FAA design standards for an ARC C-II airport. Each of these alternatives would require a Memorandum of Agreement with the FAA to modify the runway/taxiway separation standard at the relocated Taxiway 'A' to meet FAA design standards for an ARC D-III Airport, and that modification of standards would involve operational restrictions. Alternatives 1c and 1d also would not provide a means for meeting existing aircraft parking needs unless the displaced aircraft parking spaces can be relocated to the proposed Southside Basing Area with the concurrent implementation of the Alternative 3b. ***Note:*** Implementation of Alternatives 1c, 1d, or 1e would be contingent upon the willingness of the quarry owner to provide an easement to accommodate grading in the TOFA. Based on the small areas of the easements, it is assumed that the potential future revenue associated with extractable materials in the proposed easement locations would be negligible. The estimated costs in 2017 dollars associated with implementation of Alternatives 1c, 1d, and 1e are approximately $11.1 million, $10.9 million, and $10.6 million, respectively.

Alternative 1b was selected as the Sponsor-Preferred Alternative for the Taxiway 'A' element of the Proposed Action. This alternative would meet the purpose of and need for the Proposed Action because it would meet the ARC D-III design criteria without requiring a Memorandum of Agreement with the FAA to modify the runway/taxiway separation standard that would involve operational restrictions. Additionally, with the concurrent implementation of Alternative 3b, Alternative 1b would enable the Airport to retain the existing aircraft parking spaces displaced with relocation of the TOFA. The social and environmental impacts associated with Alternative 1b would be similar to those for Alternatives 1c, 1d, and 1e.

Build Alternative 2b for Southside Basing Area

Alternative 2b, the Sponsor-Preferred Alternative, would demolish and remove three existing buildings to prepare a portion of the site to accommodate the future development of hangared aircraft storage (see **Figure 2.5**). This alternative would also provide a location to accommodate aircraft parking spaces that would be displaced from the existing northside and south basing area with implementation of Alternatives 1b, 1c or 1d and Alternatives 3b or 3c. Implementation of Alternative 2b would not involve social impacts because the land would be acquired as part of Alternative 3b (see below). It would impact 5.95 acres of mixed pine/hardwood forest but would avoid disturbance of Noonday Creek and its vegetated buffer and associated floodplain resources.

Alternative 2b was selected as the Sponsor-Preferred Alternative for the Southside Basing Area element of the Proposed Action. With the concurrent implementation of Alternative 3b, Alternative 2b would meet the purpose of and need for the Proposed Action as documented in Chapter 1 of this EA. It would provide a site to accommodate the Sponsor-Preferred Alternative for the Taxiway 'B' relocation, and it would accommodate parking spaces for aircraft displaced from the existing northside and south basing areas as part of the Proposed Action.

It would also accommodate the future development of hangared aircraft storage to help meet the Airport's forecasted need to bring the percentage of stored aircraft from 40 percent to 70 percent. The estimated cost associated with Alternative 2b is approximately $19.3 million in 2017 dollars.

Build Alternatives 3b and 3c for Taxiway 'B' Relocation

Alternative 3b

Alternative 3b, the Sponsor-Preferred Alternative, would provide a 400-foot runway/taxiway separation along the entire length of Taxiway 'B' to meet FAA design standards for an ARC D-III airport (see **Figure 2.6**). It would require a Modification of Standards from the FAA for the western end of the proposed taxiway as a Part 77 obstruction (primary surface violation), to avoid a ramp reconstruction. Alternative 3b would include acquisition of the adjacent Parcels 1650, 1640, and 2155 to accommodate the relocated Taxiway 'B' TOFA. Acquisition of the adjacent parcels would provide a site to accommodate aircraft parking spaces that would be displaced from the northside apron and the south basing area as part of the Proposed Action. In addition, acquisition of the three adjacent parcels would provide a site to accommodate future development of hangared aircraft storage that would help meet the Airport's forecasted need to bring the percentage of stored aircraft from 40 percent to 70 percent.

Construction activity on the adjacent Parcels 1650, 1640, and 2155 would include clearing and grading along the Airport boundary, within the relocated Taxiway 'B' TOFA. That activity would involve the removal of approximately 4.0 acre of mixed pine-hardwood habitat and 0.02 acre of upland scrub-shrub habitat. Grading for the easternmost portion of the relocated TOFA would impact approximately 0.11 acre of mixed pine-hardwood habitat and 0.80 acre of upland scrub-shrub habitat on the existing Airport property. The removal of mixed pine-hardwood forest habitat is considered to represent a minor impact to the federally protected northern long-eared bat, because seasonal restrictions on tree clearing would be included in the construction contract that would avoid or minimize impacts to individual roosting bats, and there is ample similar habitat in the nearby vicinity.

The Noonday Creek box culvert would be potentially extended by approximately 76 feet within a deed restricted area of the Airport property (see **Appendix B**). The culvert extension would impact approximately 101 lf of stream resources, representing approximately 0.028 acre of aquatic habitat for the federally protected Cherokee darter and other aquatic species, and it would impact approximately 1.65 acres of regulated floodplain resources. ***Note:*** For both the terrestrial habitat of the northern long-eared bat and the aquatic habitat of the Cherokee darter, the estimated potential impacts are "worst-case" estimates. If it is determined as part of the engineering design development that it is feasible to construct a wall to avoid the deed-restricted area at Noonday Creek, implementation of Alternative 3b (the Sponsor-Preferred Alternative) would result in no impacts to the aquatic habitat of Noonday Creek itself, and little or no impact to the mixed pine/hardwood forest and scrub-shrub habitats in that deed-restricted area.

Implementation of Alternative 3b would also involve the displacement of two helicopter pads and 17 tie-down spaces from the existing south basing area. Those 19 aircraft parking spaces would be relocated to the proposed Southside Basing Area site.

The estimated cost associated with Alternative 3b is approximately $42.9 million in 2017 dollars, including the estimated $31.5 million cost for the acquisition of Parcels 1650, 1640, and 2155.

Alternative 3c

Alternative 3c would relocate the western and eastern portions of Taxiway 'B' to a 400-foot runway/taxiway separation (see **Figure 4.7**). The central portion would remain at the existing 300-foot runway/taxiway separation to avoid encroachment of a relocated TOFA onto the adjacent Parcels 1650, 1640, and 2155. The portion with the 300-foot runway-taxiway separation would meet FAA design standards for an ARC C-II Airport; however, it would not meet FAA design standards for an ARC D-III Airport without a Memorandum of Agreement with the FAA to modify the runway/taxiway separation standard, and that modification of standards would involve operational restrictions. Alternative 3c would also require a Modification of Standards from the FAA for the western end of the proposed taxiway as a Part 77 obstruction (primary surface violation), to avoid a ramp reconstruction.

Grading for the easternmost portion of the relocated TOFA would impact approximately 0.11 acre of mixed pine-hardwood habitat and 0.80 acre of upland scrub-shrub habitat on the existing Airport property. The removal of mixed pine-hardwood forest habitat would represent a minor impact to the federally protected northern long-eared bat, because seasonal restrictions on tree clearing would be included in the construction contract that would avoid or minimize impacts to individual roosting bats, and there is ample similar habitat in the nearby vicinity.

The Noonday Creek box culvert would be potentially extended by approximately 76 feet within a deed restricted area of the Airport property (see **Appendix B**). The culvert extension would impact approximately 101 lf of stream resources, representing approximately 0.028 acre of aquatic habitat for the federally protected Cherokee darter and other aquatic species, and it would impact approximately 1.65 acres of regulated floodplain resources. ***Note:*** For both the terrestrial habitat of the northern long-eared bat and the aquatic habitat of the Cherokee darter, the estimated potential impacts are "worst-case" estimates. If it is determined as part of the engineering design development that it is feasible to construct a wall to avoid the deed-restricted area at Noonday Creek, implementation of Alternative 3c would result in no impacts to the aquatic habitat of Noonday Creek itself, and little or no impact to the adjacent mixed pine/hardwood forest and scrub-shrub habitats at that location.

Alternative 3c would not provide a site on the Airport property for the relocation of aircraft parking spaces that would be displaced from the northside apron and the south basing area as part of the Proposed Action. Alternative 3c would also not provide a location for the future development of hangared aircraft storage.

Alternative 3b was selected as the Sponsor-Preferred Alternative for this element of the Proposed Action. Alternative 3b would provide a 400-foot runway-taxiway separation along the entire length of Taxiway 'B' to meet the ARC D-III design criteria It would not require a Memorandum of Agreement with the FAA to modify the runway/taxiway separation standard, which would involve operational restrictions. Alternative 3b would provide a site for relocating existing displaced aircraft parking, and it would provide a site for the future development of hangared aircraft storage to help bring the percentage of stored aircraft from 40 percent to 70 percent.

Summary

A summary of the alternatives analysis for the Taxiway 'A' and Taxiway 'B' relocation components of the Proposed Action is presented in **Tables 2.1 and 2.2**.

Table 2.1
Alternatives Screening Matrix – Taxiway 'A' Relocation (Alternatives 1a through 1e)

Screening Criteria	Alternatives				
	Alternative 1a (No Action; existing 250-foot separation)	**Alternative 1b** (400-foot separation)	**Alternative 1c** (321- to 400-foot separation)	**Alternative 1d** (321-foot separation)	**Alternative 1e** (300-foot separation)
Environmental Impacts					
Biological Resources – T&E Species Habitat (Aquatic)	No Impacts	0.09 acre	0.09 acre	0.09 acre	0.09 acre
Biological Resources – T&E Species Habitat (Terrestrial)	No Impacts	0.42 acre	0.42 acre	0.42 acre	0.32 acre
Historic / Archaeological Resources	No Impacts	No Impacts	No Impacts	No Impacts	No Impacts
Environmental Justice	No Impacts	No Impacts	No Impacts	No Impacts	No Impacts
Farmland	No Impacts	No Impacts	No Impacts	No Impacts	No Impacts
Hazardous Waste Sites	None Present	None Present	None Present	None Present	None Present
Historic Properties	None Present	None Present	None Present	None Present	None Present
Noise	No Impacts	No Impacts	No Impacts	No Impacts	No Impacts
Water Resources – Streams (Perennial Stream 2)	No Impacts	485 feet	485 feet	485 feet	485 feet
Water Resources – Streams (Noonday Creek)	No Impacts	127 feet	127 feet	127 feet	127 feet
Water Resources – Wetlands (Wetland 3)	No Impacts	0.42 acre	0.42 acre	0.42 acre	0.42 acre
Water Resources – Total Regulated Floodplains	No Impacts	2.58 acres	2.06 acres	1.92 acres	1.64 acres
Airport Design Standards					
Runway-Taxiway Separation	ARC C-II (*)	ARC D-III	ARC C-II	ARC C-II	ARC C-II
Requires MOA with FAA to meet ARC D-III Standards	Yes	No	Yes	Yes	Yes
Constructability					
Taxiway Bridge Needed	No	Yes	No	No	No
Navaid Relocations Needed	No	Yes	No	No	No
Utility Relocations Needed	No	Yes	Yes	Yes	Yes
Apron Modifications Needed	No	Yes	No	No	No
Land Acquisition					
Quarry Easement Needed	No	Yes	Yes	Yes	Yes
Cost					
Total Estimated Cost	No Cost	$19.5 million	$11.1 million	$10.9 million	$10.6 million

NOTE:

(*) Subject to operational restrictions set forth in a 2013 Letter of Agreement (LOA) between McCollum Air Traffic Control Tower and Cobb County Airport – McCollum Field, entitled "Designation of Movement / Non-Movement Areas and Control of Vehicular Traffic on Airport Movement Areas (May 15, 2013, effective August 1, 2013). At the time of the LOA the Runway 9-27 to Taxiway 'A' separation was 225 feet. Runway 9-27 was subsequently widened from 75 feet to 100 feet, the taxiway and the runway centerline was shifted to attain the current 250-foot runway-taxiway separation.

Table 2.2
Alternatives Screening Matrix – Taxiway 'B' Relocation (Alternatives 3a through 3c)

Screening Criteria	Alternatives		
	Alternative 3a (No Action; 300-foot separation)	**Alternative 3b** (400-foot separation)	**Alternative 3c** (300 to 400-foot separation)
Environmental Impacts			
Biological Resources – T&E Species Habitat (Aquatic)	No Impacts	0.028 acre	0.028 acre
Biological Resources – T&E Species Habitat (Terrestrial)	No Impacts	4.11 acres	0.11 acre
Historic/Archaeological Resources	None Present	None Present	None Present
Environmental Justice	No Impacts	No Impacts	No Impacts
Farmland	None Present	None Present	None Present
Hazardous Waste Sites	None Present	None Present	None Present
Historic Properties	None Present	None Present	None Present
Noise	No Impacts	No Impacts	No Impacts
Water Resources – Streams (Noonday Creek)	No Impacts	101 feet	101 feet
Water Resources – Wetlands (None Present)	No Impacts	No Impacts	No Impacts
Water Resources – Total Regulated Floodplains	No Impacts	1.65 acres	1.33 acres
Airport Design Standards			
Runway-Taxiway Separation	ARC C-II	ARC D-III	ARC C-II
Requires MOA with FAA to meet ARC D-III Standards (with operational restrictions)	Yes	No	Yes
Constructability			
Navaid Relocations Needed	No	Yes	No
Utility Relocations Needed	No	Yes	Yes
Apron Modifications Needed	No	Yes	No
Land Acquisition			
Parcel Acquisitions Needed (Parcels 1650; 1640; 2155)	None	Yes (41.17 ac) (*)	None
Cost			
Total Estimated Cost	No Cost	$42.9 million (*)	$10.8 million

NOTE:
(*) Implementation of Alternative 3b at the estimated cost of $42.9 million is contingent on and includes the estimated $31.5 million cost for the prior or concurrent acquisition of Parcels 1650, 1640, and 2155.

There is only one build alternative for the Southside Basing Area component of the Proposed Action.

The No-Action alternatives were carried forward for a full environmental evaluation to compare their potential impacts to those of Alternatives 1b, 2b, and 3b, the three reasonable build alternatives that were determined to meet the purpose of and need for the Proposed Action and to minimize environmental impacts, while also being considered with respect to their constructability and cost.

CHAPTER 3. AFFECTED ENVIRONMENT

3.1 INTRODUCTION

Cobb County International Airport is located inside the political boundary of unincorporated Cobb County, southeast of the city of Kennesaw and northwest of the city of Atlanta. It is bounded by McCollum Parkway to the northwest, a rock quarry to the north and northeast, Lakes Boulevard to the east, a conservation easement to the southeast, industrial development to the south and southwest, and South Main Street to the west (see **Chapter 1 - Figure 1.2**).

The Airport property is designated in the Cobb County 2040 Comprehensive Plan as civic land use. Land use in the immediate vicinity of the Airport is industrial to the northeast; industrial and commercial to the east and southeast; industrial to the south; and residential to the southwest, west, and northwest (**Exhibit B**). The northeastern and southeastern portions of the Airport are located within the Federal Emergency Management Agency (FEMA) 100-year floodplain of Noonday Creek.[3] The industrial land use located to the northeast of the Airport property is a rock quarry operated and managed by Vulcan Materials Company. Commercial development to the east consists of various retail businesses located within or adjacent to the Barrett Pavilion and the Cobb Place Shopping Center. To the southeast, commercial development consists of two financial institutions and an internet security company. Industrial development to the south includes a FedEx Ground facility. Beyond Cobb Parkway and McCollum Parkway to the southwest, west, and northwest, residential development comprises most of the land use types in the vicinity of the Airport.

3.2 ENVIRONMENTAL SETTING

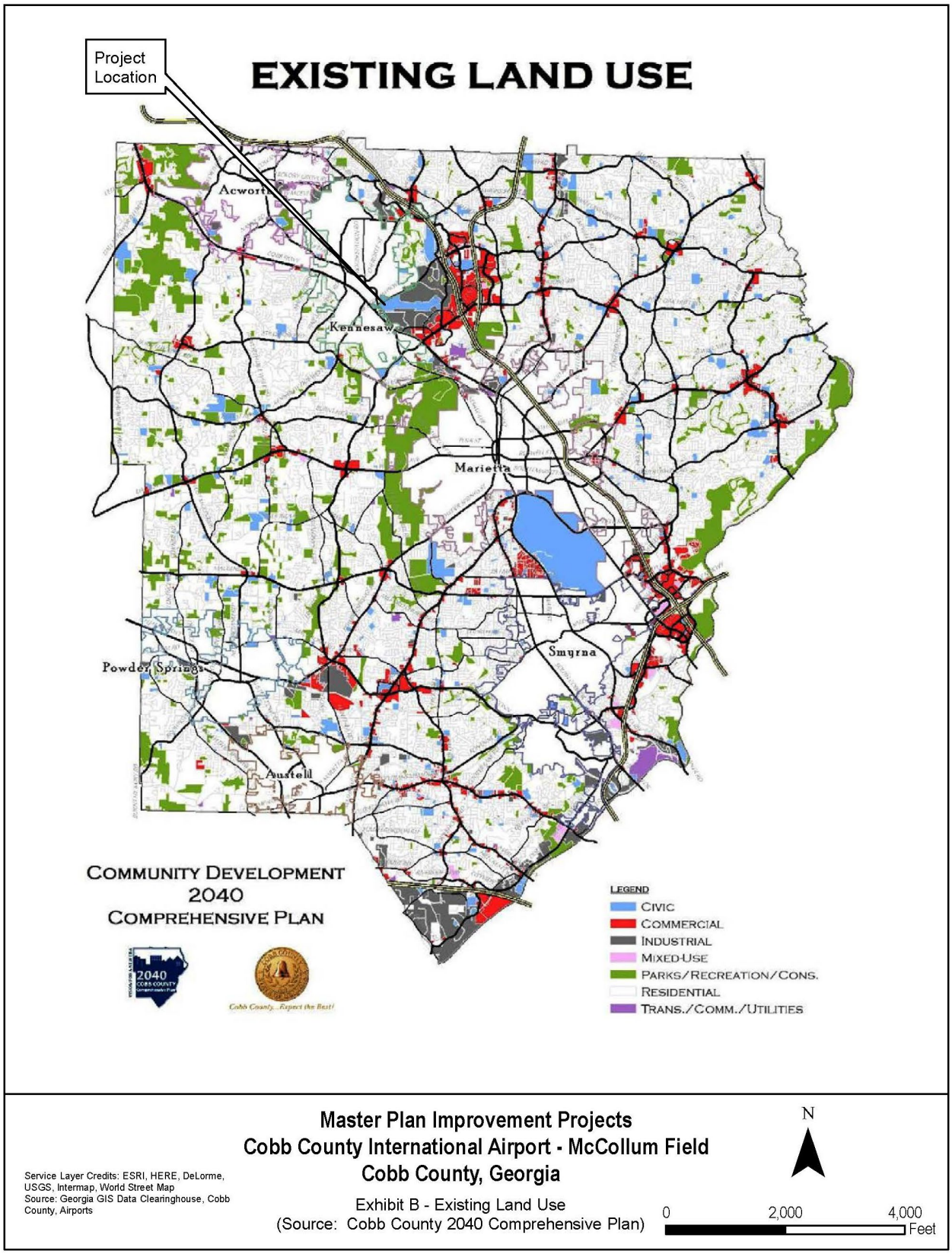
3.2.1 Existing Land Use and Zoning

According to data available from the Cobb County 2040 Comprehensive Plan, the following zoning areas are currently designated in the area surrounding the Airport (see **Exhibit B**):[4]

- **Airport Property**: Civic and Industrial
- **Northeast**: Industrial
- **East**: Industrial and Commercial
- **Southeast**: Industrial and Commercial
- **South**: Industrial
- **Southwest**: Residential
- **West**: Residential
- **Northwest**: Residential

[3] FEMA (2018). Flood Map Service Center Accessed on March 15, 2019 at: https://msc.fema.gov/portal/search#searchresultsanchor.

[4] Cobb County (2019). *Cobb County 2040 Comprehensive Plan*.


Project Location
EXISTING LAND USE
Acworth
Kennesaw
Marietta
Smyrna
Powder Springs
Austell
COMMUNITY DEVELOPMENT
2040
COMPREHENSIVE PLAN
LEGEND
CIVIC
COMMERCIAL
INDUSTRIAL
MIXED-USE
PARKS/RECREATION/CONS.
RESIDENTIAL
TRANS./COMM./UTILITIES
Master Plan Improvement Projects
Cobb County International Airport - McCollum Field
Cobb County, Georgia
Exhibit B - Existing Land Use
(Source: Cobb County 2040 Comprehensive Plan)
Service Layer Credits: ESRI, HERE, DeLorme, USGS, Intermap, World Street Map
Source: Georgia GIS Data Clearinghouse, Cobb County, Airports
N
0
2,000
4,000
Feet

3.2.2 Future Land Use and Zoning

The Cobb County 2040 Comprehensive Plan designates the following future land uses in the vicinity of the Airport (**Table 3.1; Exhibit C**):

- **Airport Property**: Priority Industrial Area
- **North**: Priority Industrial Area
- **Northeast**: Regional Activity Center
- **East**: Regional Activity Center
- **Southeast**: Regional Activity Center and Transportation/Communication/Utilities
- **South**: Community Activity Center and Medium Density Residential
- **Southwest**: City of Kennesaw and Community Activity Center
- **West**: City of Kennesaw
- **Northwest**: City of Kennesaw

Table 3.1
Future Land Use Designations in the Vicinity of the Airport

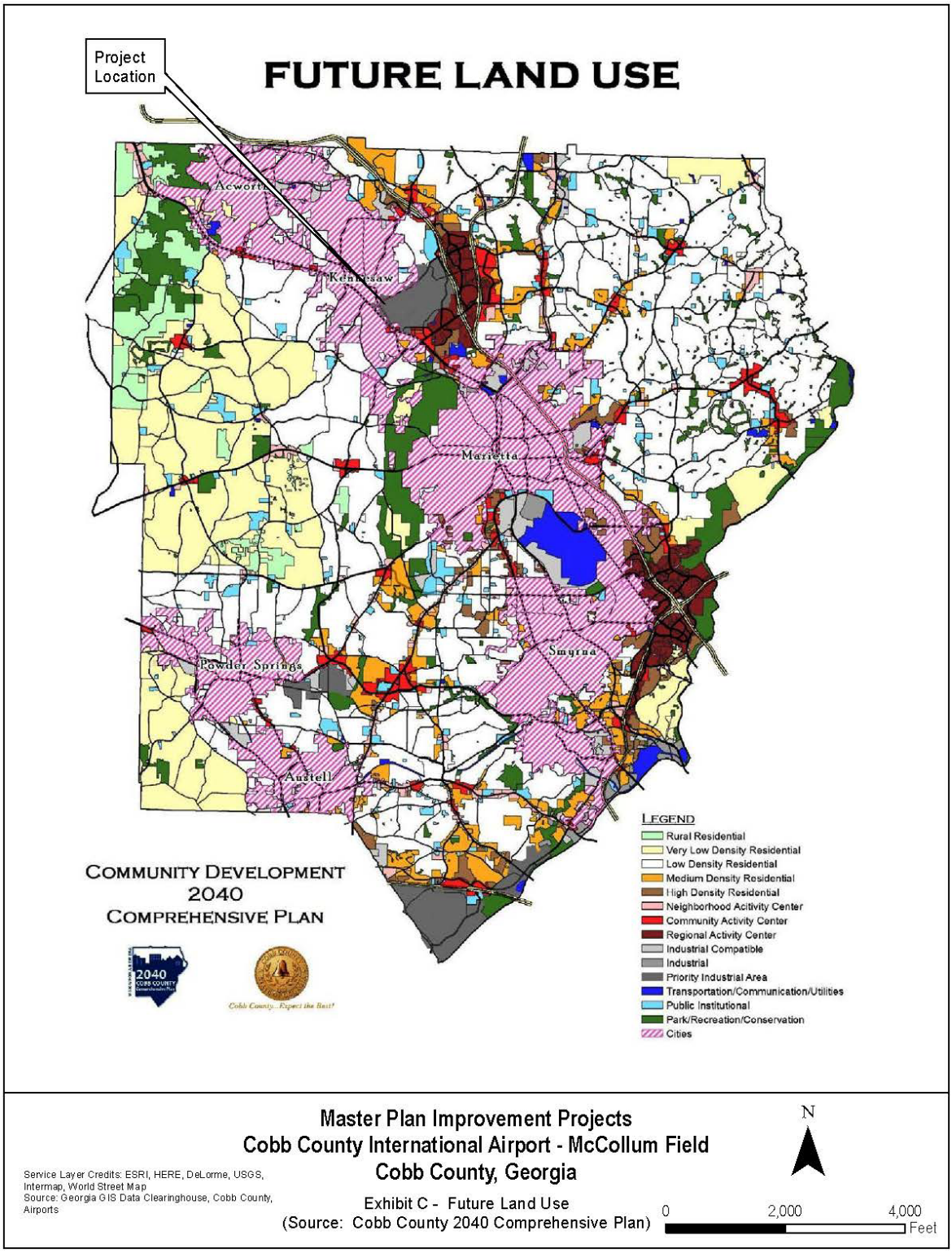
Use	Overview
Priority Industrial Area	Areas of the most important Industrial and Industrial Compatible land areas in unincorporated Cobb County. These areas are considered critical to the County's capacity for future industrial-type, job-producing sectors.
Regional Activity Center	Areas that can support high-intensity development, which serves a regional market. Land use in this area typically includes high-rise office buildings, regional malls, and varying densities of residential development.
Transportation / Communication / Utilities	Areas containing power generation plants, railroad facilities, communication towers, airports, etc.
Community Activity Center	Areas that meet the immediate needs of several neighborhoods or communities. Land use in this area typically includes low to mid-rise office buildings and department stores.

Source: *Cobb County 2040 Comprehensive Plan*.

3.2.3 Affected Human Populations

In accordance with 40 CFR 1508.14, NEPA documentation must address the social impacts of a proposed action. An evaluation of the "human" environment considers the relationships of people with their natural and physical environments, because people are typically affected by changes in these two types of environments.[5] In accordance with E.O. 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low Income Populations*, federal agencies are required to identify community issues of concern during the NEPA planning process, particularly those issues relating to decisions that may have an impact on low income or minority populations.

[5] FAA (2015). 1050.1F *Desk Reference. July 2015.*


Project Location
FUTURE LAND USE
Acworth
Kennesaw
Marietta
Smyrna
Powder Springs
Austell
COMMUNITY DEVELOPMENT
2040
COMPREHENSIVE PLAN
LEGEND
Rural Residential
Very Low Density Residential
Low Density Residential
Medium Density Residential
High Density Residential
Neighborhood Acitivity Center
Community Activity Center
Regional Activity Center
Industrial Compatible
Industrial
Priority Industrial Area
Transportation/Communication/Utilities
Public Institutional
Park/Recreation/Conservation
Cities
Master Plan Improvement Projects
Cobb County International Airport - McCollum Field
Cobb County, Georgia
Exhibit C - Future Land Use
(Source: Cobb County 2040 Comprehensive Plan)
Service Layer Credits: ESRI, HERE, DeLorme, USGS, Intermap, World Street Map
Source: Georgia GIS Data Clearinghouse, Cobb County, Airports
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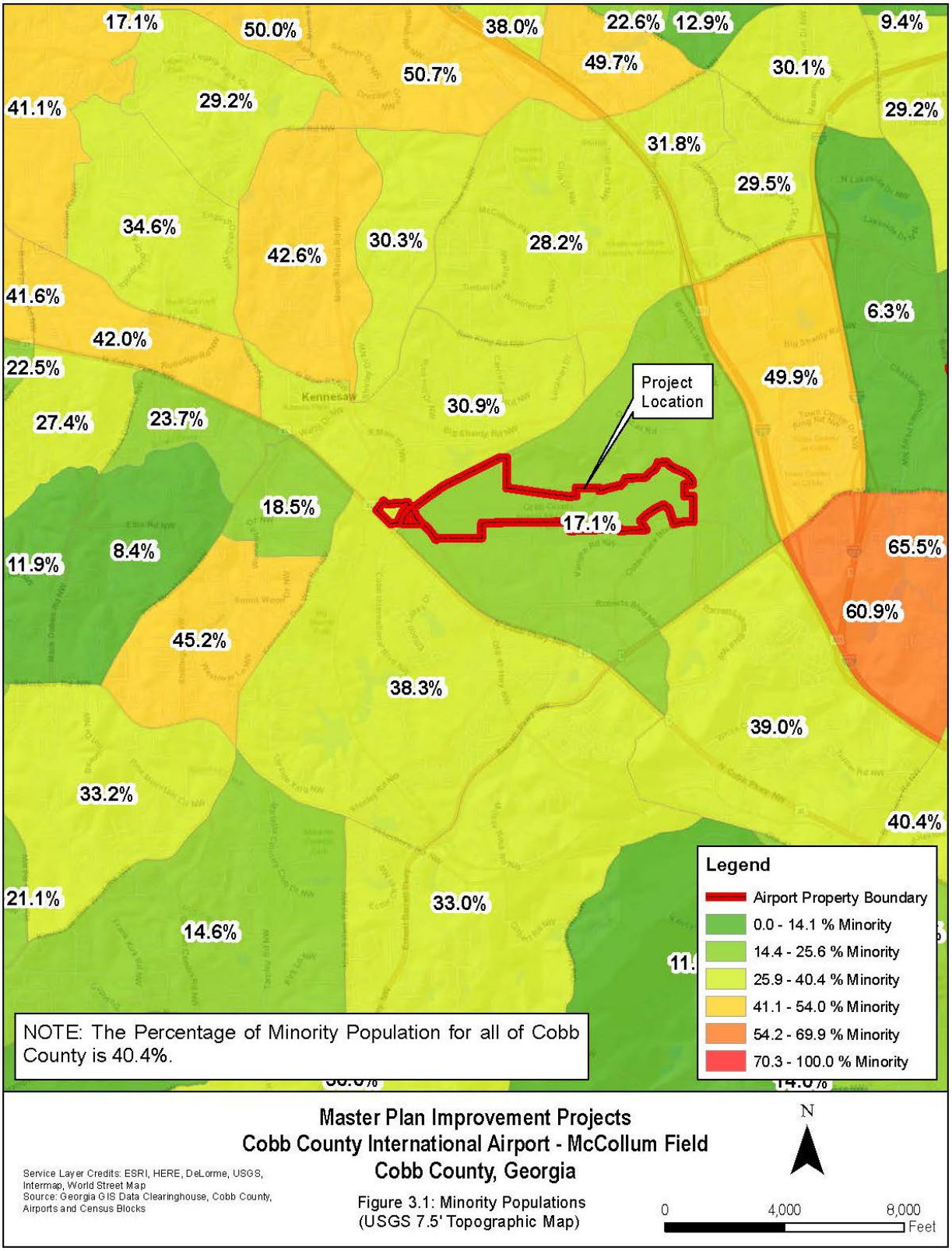
Feet

The project study area consists of mostly commercial and industrial land uses. However, there is some residential use within the project study area. Based on block group data from the Georgia GIS Data Clearinghouse, between 17.1 and 38.3 percent of the population located adjacent to the Airport property identified as a race other than white, and the portion of the population located in the vicinity of the Airport living below the poverty level ranged from 3.7 to 15.5 percent (**Figures 3.1 and 3.2**, respectively).

3.3 PAST, PRESENT, AND REASONABLY FORESEEABLE FUTURE ACTIONS

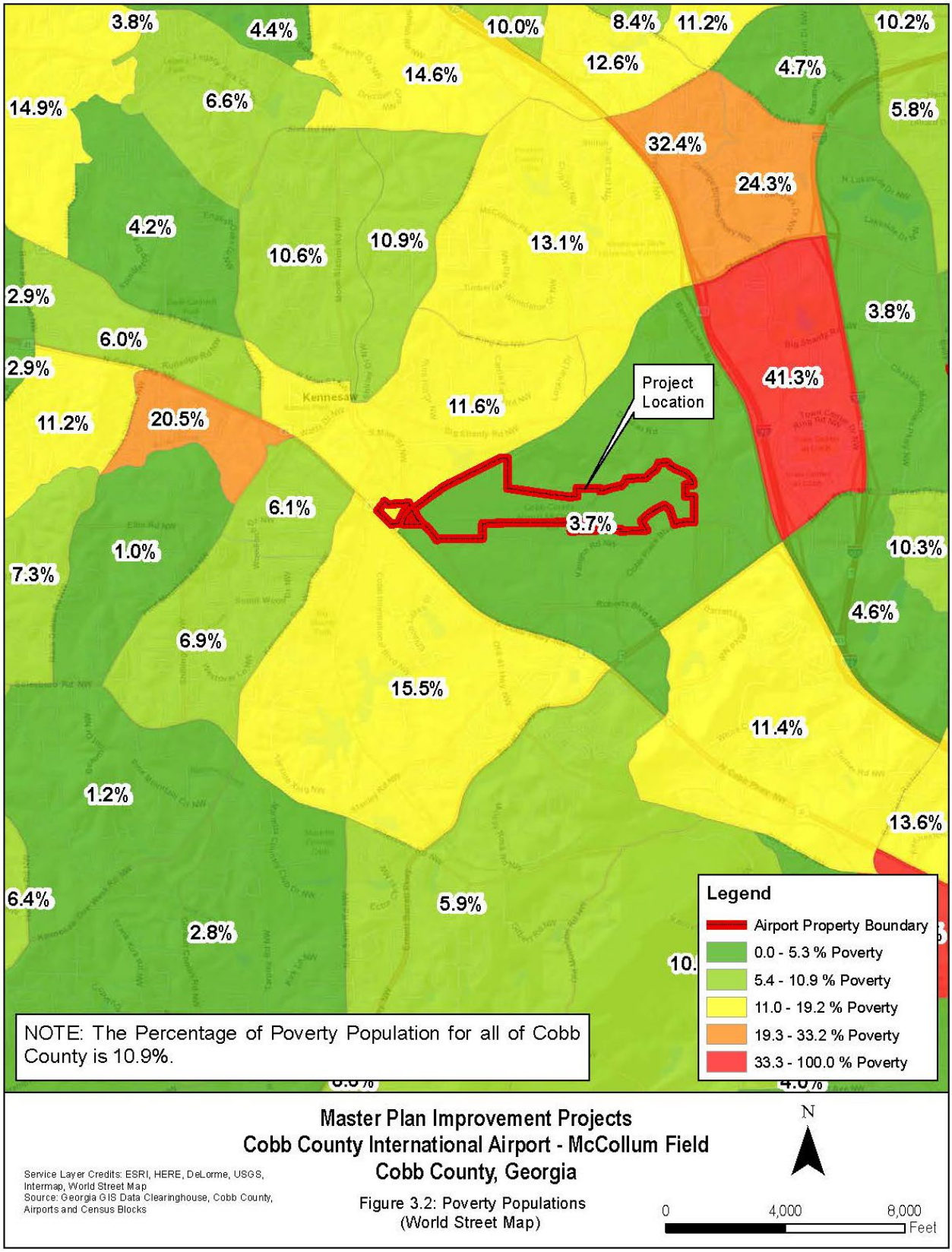
Past actions that have occurred on the Airport property include the installation of a 1,185-foot box culvert along Noonday Creek beneath Runway 9-27 in the year 2000, the extension of Runway 9-27 and Taxiways 'A' and 'B' in 2004, and the relocation of Noonday Creek associated with the box culvert construction, including onsite and offsite enhancement and preservation and the establishment of deed restrictions in 2007. The wetland enhancement and preservation projects were implemented to provide the compensatory mitigation specified in the Clean Water Act (CWA) Section 404 permit issued by the U.S. Army Corps of Engineers (USACE) for the 2004 runway and taxiway extension project. Additionally, extensions of Taxiways 'A' and 'B' were constructed at the approach end of Runway 9 in 2014, and the North Apron Rehabilitation and Taxiway Connector project and the Air Traffic Control Tower Upgrade project were completed in 2017.



Master Plan Improvement Projects
Cobb County International Airport - McCollum Field
Cobb County, Georgia

Service Layer Credits: ESRI, HERE, DeLorme, USGS, Intermap, World Street Map
Source: Georgia GIS Data Clearinghouse, Cobb County, Airports and Census Blocks

Figure 3.1: Minority Populations
(USGS 7.5' Topographic Map)


3.8%
4.4%
10.0%
8.4%
11.2%
10.2%
14.6%
12.6%
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6.6%
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13.1%
2.9%
3.8%
6.0%
2.9%
41.3%
Project Location
Kennesaw
11.6%
11.2%
20.5%
6.1%
3.7%
1.0%
10.3%
7.3%
4.6%
6.9%
15.5%
11.4%
1.2%
13.6%
6.4%
5.9%
2.8%
Legend
Airport Property Boundary
0.0 - 5.3 % Poverty
5.4 - 10.9 % Poverty
11.0 - 19.2 % Poverty
19.3 - 33.2 % Poverty
33.3 - 100.0 % Poverty
NOTE: The Percentage of Poverty Population for all of Cobb County is 10.9%.
Master Plan Improvement Projects
Cobb County International Airport - McCollum Field
Cobb County, Georgia
Service Layer Credits: ESRI, HERE, DeLorme, USGS, Intermap, World Street Map
Source: Georgia GIS Data Clearinghouse, Cobb County, Airports and Census Blocks
Figure 3.2: Poverty Populations
(World Street Map)
N
0
4,000
8,000
Feet

CHAPTER 4. ENVIRONMENTAL CONSEQUENCES

4.1 INTRODUCTION

In accordance with the technical guidelines set forth in FAA Orders 1050.1F and 5050.4B, this chapter describes the potential environmental impacts associated with implementing the Proposed Action. Included in the discussion of impacts are any adverse social, economic, and environmental effects that would not be avoidable should the Proposed Action be implemented, as well as the potential beneficial effects associated with the Proposed Action. The discussion also includes an assessment of the potential adverse and beneficial effects associated with the No-Action Alternative. The technical findings are intended to provide federal decision-makers and officials, as well as the public, with an understanding of the potential effects of the Proposed Action on the human, physical, and natural environments in the potentially affected areas.

As discussed in Chapter 1 of this EA, the purpose of the Proposed Action is to accommodate operational growth at the Airport. Each element of the Proposed Action is necessary for the Airport to maintain current FAA airport design standards and safety requirements, as well as help the Airport accommodate the changing operations demands of the facility. The Proposed Action includes three elements: Taxiway 'A' relocation; Southside Basing Area construction; and Taxiway 'B' relocation. Each element of the Proposed Action was carried forward for a full evaluation of potential environmental impacts, based on the results of the screening analysis of reasonable alternatives, as discussed in Chapter 2 of this EA.

The No Action alternative and the Sponsor-Preferred alternative are summarized below for each of the three elements that comprise the Proposed Action. The potential social and environmental impacts of the three Sponsor-Preferred alternatives are described in detail in the following sections.

Alternatives 1a/2a/3a – No-Action

Alternatives 1a, 2a, and 3a would represent the taking of no action to relocate Taxiway 'A,' construct a Southside Basing Area, or relocate Taxiway 'B.' Selection of these no-action alternatives would not result in social or environmental impacts associated with construction of the proposed improvements or the operation of a modified airfield. However, these no-action alternatives would not meet the purpose of and need for the Proposed Action.

Alternative 1b – Relocate Taxiway 'A' to Provide a 400-foot Runway/Taxiway Separation

Alternative 1b would relocate Taxiway 'A' to provide a 400-foot runway/taxiway separation that meets FAA design standards for an ARC D-III airport (see **Chapter 1, Exhibit A**). This alternative would reconstruct portions of the northside ramp and hold apron relocate the segmented-circle NAVAID and weather equipment. An easement from the adjacent quarry would be needed to construct a bridge along the edge of the quarry in order to maintain the 400-foot runway/taxiway separation. The project would also include permitting and construction of a 102-foot culvert extension at Noonday Creek and a new 485-foot culvert at the perennial stream and wetland area located along the westernmost portion of the existing taxiway. The grading would encroach into the existing northside basing area, displacing aircraft parking spaces that would be relocated into the proposed Southside Basing Area. Implementation of Alternative 1b would meet the purpose of and need for the Proposed Action.

Alternative 2b – Construct the Southside Basing Area

Alternative 2b would construct a Southside Basing Area east of the existing Customs Facility, along the south side of existing Taxiway 'B' and north of Airport Road (see **Chapter 1, Exhibit A**). The total area of the land within this site (which would be acquired as part of Alternative 3b) is 41.17 acres.

The site comprises three parcels currently being used as office and storage facilities. Implementation of this alternative would provide for approximately 291,878 (sf) of storage space, if redeveloped for airport use. Implementation of Alternative 2b would meet the purpose of and need for the Proposed Action.

Alternative 3b – Relocate Taxiway 'B' to Provide a 400-foot Runway/Taxiway Separation

Alternative 3b would relocate the existing Taxiway 'B' to provide a 400-foot runway/taxiway separation needed to meet FAA design standards for an ARC D-III Airport (see **Chapter 1**, **Exhibit A**). This alternative would involve permitting and construction of a 76-foot extension of the Noonday Creek box culvert (see **Appendix B**). It would also require the acquisition of three parcels of land totaling 41.17 acres that are currently used for non-Airport related office and storage facilities. The land acquisition would be necessary to correctly grade the toe of slope away from the edge of the taxiway.

The parcels required for the airfield grading would also provide an area for future landside capacity improvements (see Alternative 2b). Implementation of Alternative 3b would meet the purpose of and need for the Proposed Action.

4.2 AIR QUALITY

This section contains a summary of existing air quality conditions in the vicinity of the Airport, including the regulatory framework and the air quality monitoring data and attainment status. The air quality impacts associated with construction of the Proposed Action are quantitatively addressed in the Air Quality Assessment Report (**Appendix C–Air Quality Assessment Report**).

4.2.1 Regulatory Framework

FAA is the primary agency responsible for ensuring that air quality impacts associated with proposed airport projects adhere to the reporting and disclosure requirements of NEPA and to the General Conformity rule of the Clean Air Act (CAA). The Environmental Protection Division (EPD) of the Georgia Department of Natural Resources (GADNR) is responsible for enforcing the CAA on behalf of the U.S. Environmental Protection Agency (EPA), including compliance with the U.S. National Ambient Air Quality Standards (NAAQS), issuance of air emission source permits, monitoring of air quality conditions, and assistance in preparation of the State Implementation Plan (SIP).

The CAA requires states to develop a general plan to attain and/or maintain the primary and secondary NAAQS in all areas of the country, and to develop a SIP for approval by EPA to attain the standards for each area designated nonattainment for a NAAQS. Furthermore, the Atlanta Regional Commission (ARC), the designated Metropolitan Planning Organization (MPO) for the greater Atlanta area, is responsible for developing a long-range Regional Transportation Plan (RTP) and a short-range Transportation Improvement Plan (TIP) that must conform to the air quality goals established in the SIP (**Table 4.1**).

Table 4.1
Regulatory Agencies Involved in Air Quality

Agency		Roles & Responsibilities
Federal Agency	U.S. Environmental Protection Agency (EPA)	Sets national clean air policies under the federal Clean Air Act (CAA); promulgates the National Ambient Air Quality Standards (NAAQS); reviews and approves State Implementation Plans (SIPs).
	Federal Aviation Administration (FAA)	Responsible for reviewing and approving the Environmental Assessment (EA) under the National Environmental Policy Act (NEPA) and ensuring compliance with the General Conformity Rule of the CAA.
State Agency	Environmental Protection Division (EPD) of the Georgia DNR	Charged with protecting Georgia's air, land, and water resources through the authority of state and federal environmental statutes. Responsible for the development of the Georgia SIP and for the management of air quality within Georgia.
	Georgia Regional Transportation Authority (GRTA)[1]	Directed to address transportation mobility and air quality in metropolitan Atlanta. In 2017, GRTA combined with the State Road and Tollway Authority (SRTA) to jointly provide the services of both state authorities. As such, all functions for both authorities are combined under the staff and leadership of SRTA.
	The Georgia Department of Transportation (GDOT)	Addresses mobility, air quality and land use and how they relate to the transportation needs of metro Atlanta, including both roads and public transit.
	Atlanta Regional Commission (ARC)[2]	Is the federally designated Metropolitan Planning Organization (MPO) and is responsible for developing a long-range Regional Transportation Plan (RTP) and short-range Transportation Improvement Plan (TIP) that conform to the air quality goals established in the SIP, according to the guidelines outlined in the Metropolitan Planning Regulations and Transportation Conformity Rule.
Regional	Atlanta Regional Commission (ARC)[2]	Is the federally designated Metropolitan Planning Organization (MPO) and is responsible for developing a long-range Regional Transportation Plan (RTP) and short-range Transportation Improvement Plan (TIP) that conform to the air quality goals established in the SIP, according to the guidelines outlined in the Metropolitan Planning Regulations and Transportation Conformity Rule.

Notes:
[1] GRTA's jurisdiction encompasses 13 counties: Cherokee, Clayton, Coweta, Cobb, DeKalb, Douglas, Fayette, Forsyth, Fulton, Gwinnett, Henry, Paulding, and Rockdale.
[2] The ARC metropolitan planning area comprises City of Atlanta and the counties of Cherokee, Clayton, Cobb, Coweta, DeKalb, Douglas, Fayette, Forsyth, Fulton, Gwinnett, Henry, Paulding and Rockdale, as well as portions of the counties of Barrow, Bartow, Newton, Spalding and Walton.

National Ambient Air Quality Standards

The NAAQS are set to safeguard public health and environmental welfare against the detrimental effects of ambient air pollution; they are defined as primary and secondary standards. Primary NAAQS are health-based standards geared toward protecting sensitive or at-risk populations, such as asthmatics, children, and the elderly. Secondary NAAQS are welfare-oriented, designed to prevent decreased visibility and damage to animals, vegetation, and physical structures. NAAQS have been established for six common air pollutants, referred to as "criteria" pollutants: carbon monoxide (CO); lead (Pb); nitrogen dioxide (NO_2); ozone (O_3); particulate matter (PM), which includes PM with diameters of 10 microns or less (PM_{10}) and diameters of 2.5 microns or less ($PM_{2.5}$); and sulfur dioxide (SO_2). The NAAQS are listed in **Table 4.2**.

Air Quality Designations

The EPA designates areas as either in attainment or nonattainment. An area with measured criteria pollutant concentrations that are lower than the NAAQS is designated as attainment and an area with concentrations that exceed the NAAQS is designated as nonattainment. Once a nonattainment area meets the NAAQS and the additional re-designation requirements in the CAA, the EPA will designate the area as maintenance. Nonattainment areas are further classified as extreme, severe, moderate, or marginal. Notably, an area is designated as unclassifiable when there is lack of sufficient data to form the basis of an attainment status determination.

The Airport is located in Cobb County, which is currently designated as a "marginal" nonattainment area for the 2008 8-hour O_3 standard; and as of June 2, 2017, as a maintenance area for the 2015 8-hour O_3 standard. **Table.4.3** presents the air quality designations of Cobb County.

General Conformity

The CAA General Conformity Rule prohibits federal agencies (including FAA) from permitting or funding projects in NAAQS nonattainment or maintenance areas that do not conform to an EPA-approved SIP. As a means of demonstrating conformity with the SIP, project-related emissions of the applicable nonattainment/maintenance pollutants (and precursors) are compared to *de minimis* level thresholds.

If the emissions exceed the thresholds, a formal Conformity Determination is required to demonstrate that the action conforms to the applicable SIP. Conversely, if project-related emissions are below the *de minimis* levels, the project is assumed to conform to the SIP.

Because the improvements at the Cobb County International Airport would occur in a NAAQS "marginal" nonattainment area for the 2008 8-hour ozone standard; and as of June 2, 2017, in a maintenance area for the 2015 8-hour ozone standard, an analysis was performed to determine the applicability of the CAA's General Conformity Rule. The General Conformity *de minimis* levels for Cobb County are presented in **Table 4.4**.

Transportation Conformity

The CAA also contains a Transportation Conformity Rule that functions similarly to the General Conformity Rule. The CAA Transportation Conformity Rule reserves federal funding for transportation projects sponsored by the Federal Highway Administration (FHWA) and GDOT that are consistent with the current EPA-approved SIP. It is assumed that the Proposed Action would not be subject to the Transportation Conformity Rule because it is not a roadway/highway project.

Table 4.2
National Ambient Air Quality Standards

Pollutant		Primary/ Secondary	Averaging Time	Level
Carbon Monoxide (CO)		Primary	8 hours	9 ppm
			1 hour	35 ppm
Lead (Pb)		Primary and secondary	Rolling 3-month average	0.15 µg/m^3
Nitrogen Dioxide (NO_2)		Primary	1 hour	100 ppb
		Primary and secondary	1 year	53 ppb
Ozone (O_3)		Primary and secondary	8 hours	0.07 ppm
Particulate Matter (PM)	$PM_{2.5}$	Primary	1 year	12 µg/m^3
		Secondary	1 year	15 µg/m^3
		Primary and secondary	24 hours	35 µg/m^3
	PM_{10}	Primary and secondary	24 hours	150 µg/m^3
Sulfur Dioxide (SO_2)		Primary	1 hour	75 ppb
		Secondary	3 hours	0.5 ppm

Notes: ppm = parts per million, and µg/m^3 = micrograms per cubic meter.
Source: EPA, National Ambient Air Quality Standards, *https://www.epa.gov/criteria-air-pollutants/naaqs-table*, 2019.

Table 4.3
Air Quality Designations

County	Pollutant	Area Name	Classification	Whole or/Part County
Cobb	8-hour Ozone (O_3) (2008)	Atlanta, GA	Re-designation to Maintenance on 6/2/2017	Whole
	8-hour O_3 (2015)		Marginal Nonattainment	

Notes: The column "Whole or/Part County" indicates whether only a part of the county or the whole county is designated nonattainment/maintenance.

Source: EPA, Green Book, https://www3.epa.gov/airquality/greenbook/anayo_ga.html, 2019.

Table 4.4
General Conformity *de minimis* Levels

Pollutant	Precursors	Tons/Year
Ozone (O_3) CO	Volatile Organic Compounds (VOC)	100
	Nitrogen oxides (NO_x)	100

Note: NO_x and VOCs are precursors to ozone formation.
Source: EPA, General Conformity *De Minimis* Tables, https://www.epa.gov/general-conformity/de-minimis-tables, 2019.

4.2.2 Construction Emissions

Air pollutant emissions due to construction activity vary based on the project's duration and level of activity. These emissions occur predominantly in the engine exhaust of construction equipment and vehicles (e.g., scrapers, dozers, delivery trucks, etc.), but are also attributable to fugitive dust produced from construction materials staging, soil handling, un-stabilized land and wind erosion; as well as evaporative emissions from asphalt paving activities. The construction projects and schedules for the proposed improvements at RYY are summarized in **Table 4.5**.

Table 4.5
Construction Projects and Schedules

Project	Schedule
Taxiway A Relocation	July 2020 - December 2022
Taxiway B Relocation	May 2023 - September 2025
Southside Basing Area	April 2021-November 2021

Source: Michael Baker International and KB Environmental Sciences, Inc., 2019.

The Airport Construction Emissions Inventory Tool (ACEIT) – a companion tool to the Transportation Research Board's (TRB's) Airport Cooperative Research Program (ACRP) Report 102 was used to obtain construction activities and equipment/vehicles activity data (e.g.,

equipment mixes/times).[6] EPA's Motor Vehicle Emissions Simulator (MOVES)[7] model was used to derive emission factors for both off-road construction equipment and on-road vehicles.

Table 4.6 provides the results of the construction-related emissions for CO, NO_x, SO_2, VOC, PM_{10}, and $PM_{2.5}$. The total emissions associated with construction activities are also well below the *de minimis* threshold of 100 tons/year for NO_x and VOC. A Conformity Determination is not required for the Proposed Action as it can be presumed to conform with the SIP.

Table 4.6
Construction Emissions Inventories (tons/year)

Year	CO	NO_x	SO_2	VOC	PM_{10}	$PM_{2.5}$
2020	3.70	1.41	0.01	0.95	1.37	0.20
2021	20.3	14.1	0.05	9.90	5.46	1.16
2022	3.26	1.14	0.01	0.88	1.35	0.18
2023	3.06	1.04	0.01	0.85	1.35	0.18
2024	3.97	1.90	0.01	1.01	2.89	0.37
2025	2.72	0.88	0.01	0.80	1.34	0.17
De minimis Thresholds	--	100	--	100	--	--
Exceeds *de minimis*? (Yes/No)	--	No	--	No	--	--

Notes: Years or values are not additive. CO = carbon monoxide, NO_x = nitrogen oxide, SO_2 = sulfur dioxide, VOC = volatile organic compounds, PM_{10} = particulate matter with a diameter of 10 microns or smaller, and $PM_{2.5}$ = particulate matter with a diameter of 2.5 microns or smaller.
Source: TRB, ACRP - ACEIT, 2019.

Construction Emission Reduction Measures

Exhaust emissions due to construction activities can be reduced many ways, including the expansion of construction schedule duration (thereby reducing the frequency of equipment operation), reduction of equipment idling times, storing recyclable construction materials on-site to reduce the amount of haul truck trips, and using low- or zero-emissions equipment. Employees could also be encouraged to carpool in order to reduce the vehicle miles travelled associated with their trips to and from the site. Ensuring the contractor has knowledge of appropriate fugitive dust and equipment exhaust controls is also a measure to reduce emissions.

Generally, activities that emit substantial NO_x and VOC should be limited during times when the atmospheric conditions are conducive to ozone formation, namely when air circulation is limited

[6] Transportation Research Board, ACRP Report 102, *Guidance for Estimating Airport Construction Emissions*, http://onlinepubs.trb.org/onlinepubs/acrp/acrp_rpt_102.pdf.
[7] EPA, MOVES (Version MOVES2014b), https://www.epa.gov/moves/latest-version-motor-vehicle-emission-simulator-moves.

and temperatures are high. Hot mix asphalt with reduced VOC content should be applied whenever possible during paving operations. Fugitive dust PM emissions can be mitigated by regularly watering or applying dust suppressants to unpaved areas, installing pads to deter track-out as vehicles enter and leave the site, reducing vehicle speeds on unpaved roads, covering materials stockpiles, covering haul trucks during materials transportation, and limiting construction activity

Construction Emission Impact Analysis

Selection of the No-Action Alternative would not involve construction activities that would contribute to increased levels of fugitive dust or criteria pollutants emissions; therefore, this alternative would have no direct impacts on air quality. Implementation of the Proposed Action would have temporary direct impacts on air quality related to construction of the three project elements. Particulates would increase slightly in the vicinity of the project as dust from construction activities collects in the air. The construction equipment would also produce slight amounts of exhaust emissions. These emissions would be below the *de minimis* threshold of 100 tons per year for CO, NO_x, SO_2, $PM_{2.5}$, and VOC, and; therefore, a Conformity Determination is not required, and the Proposed Action is presumed to comply with the SIP.

4.2.3 Operational Impacts on Air Quality

The aircraft operational-related emissions associated with the proposed improvements at RYY were computed using the FAA's Aviation Environmental Design Tool (AEDT-Version 2d). Airport operational emissions sources other than aircraft (e.g., auxiliary power units a, ground service equipment, and motor vehicles) were not considered in the analysis as emissions from these sources would not change as a result of the proposed improvements. The emissions inventory for aircraft operations at RYY was prepared for future year 2025 with (Build) and without (No Build) the proposed improvements. The future year for which the analysis was performed was based on the 2025 mid-term year of operations projected in the 2017 Master Plan Update for the airport's 20-year planning horizon.[8]

Table 4.7 presents the project-related results of the 2025 operational emissions inventory for CO, NO_x, SO_2, VOC, PM_{10} and $PM_{2.5}$ (see **Appendix C**). As shown, operational emissions under both the No-Action and Proposed Action are well below the *de minimis* of 100 tons per year (tons/year) for NO_x and VOC, the applicable maintenance pollutants/precursors. Therefore, a Conformity Determination is not required, and the proposed project is presumed to comply with the SIP. As a result, neither selection of the No-Action nor implementation of the Proposed Action would result in adverse impacts on the air quality in Cobb County.

Table 4.7
Operational Emissions Inventories (tons/year)

Year	Source	CO	NO_x	SO_2	VOC	PM_{10}	$PM_{2.5}$
2025	No Build	329.43	7.21	1.38	14.58	0.54	0.54
	Build	328.96	7.20	1.38	14.50	0.54	0.54
	Difference (Project-related)	**-0.47**	**-0.01**	**<0.01**	**-0.08**	**<0.01**	**<0.01**
	de minimis Thresholds	--	100	--	100	--	--

[8] Michael Baker International, Inc. *2017 Airport Master Plan Update - Cobb County International Airport.* Prepared for Cobb County Department of Transportation.

Table 4.7
Operational Emissions Inventories (tons/year)

Year	Source	CO	NO_x	SO_2	VOC	PM_{10}	$PM_{2.5}$
	Exceeds *de minimis*? (Yes/No)	--	No	--	No	--	--

Notes: Results may reflect rounding. CO = carbon monoxide, NOx = nitrogen oxide, SO_2 = sulfur dioxide, VOC = volatile organic compounds, PM_{10} = particulate matter with a diameter of 10 microns or smaller, and $PM_{2.5}$ = particulate matter with a diameter of 2.5 microns or smaller.
Source: FAA's AEDT, 2019.

4.2.4 Indirect and Cumulative Impacts on Air Quality

There would be no change in the existing conditions at the Airport with the selection of the No-Action Alternative. Therefore, selection of this alternative would not result in indirect or cumulative impacts on air quality in the area of the Airport.

Implementation of the Proposed Action would not result in cumulative adverse impacts on air quality because there are no direct adverse impacts to air quality when compared to the No-Action Alternative. Conversely, implementation of the Proposed Action is anticipated to result in a decrease in CO, NO_x, and VOC emissions. Implementation of the Proposed Action also would not result in indirect adverse impacts on air quality because the future planned projects on and adjacent to the Airport property are independent projects that are not directly related to the three elements of the Proposed Action.

4.3 BIOLOGICAL RESOURCES

4.3.1 Introduction

The study area for the environmental analysis encompassed the entire Airport property and adjacent parcels where reasonably foreseeable airport-related projects are planned by the Airport or by others. The project study area is approximately 365.6 acres in size.

Selection of the No-Action Alternatives would have no impact on plant communities / habitats at the Airport, because there would be no land disturbance associated with construction activities. Implementation of the Taxiway 'A' relocation Sponsor-Preferred Alternative would involve approximately 67.96 acres of land disturbance (**Figure 4.1**).

Construction of the Southside Basing Area Sponsor-Preferred Alternative would involve demolition, grading, and paving on up to approximately 40.72 acres of previously disturbed land, and the Sponsor-Preferred Alternative for the Taxiway 'B' relocation project would involve approximately 67.65 acres of land disturbance. In total, implementation of the three elements comprising the Proposed Action Sponsor-Preferred Alternatives would result in approximately 176.33 acres of land disturbance.

4.3.2 Plant Communities and Habitats

Plant communities/habitats identified within the project study area included upland scrub-shrub habitat, disturbed lands, and wetland/stream resources. These resources are described below.

Service Layer Credits: Source: ESRI, DigitalGlobe, GeoEye, Earthstar Graphics, USDA, USGS, AeroGRID, IGN, World Imagery
Source: Georgia GIS Data Clearinghouse, Cobb County, Airports

Master Plan Improvement Projects
Cobb County International Airport - McCollum Field
Cobb County, Georgia

Figure 4.1: Disturbance Areas
(Aerial Photograph)

4.3.2.1 Uplands

Mixed Pine/ Hardwood Forest Habitat

Approximately 23.04 acres of mixed pine/hardwood forest was identified within the project study area (**Figure 4.2**). The overstory of the forest was observed to be dominated by loblolly pine (*Pinus taeda*), northern red oak (*Quercus rubra*), tulip poplar (*Liriodendron tulipifera*), southern red oak (*Quercus falcata*), water oak (*Quercus nigra*), sweetgum (*Liquidambar styraciflua*), green ash (*Fraxinus pennsylvanica*), and eastern sycamore (*Platanus occidentalis*),.and red maple (*Acer rubrum*). The understory was dominated by flowering dogwood (*Cornus florida*), hawthorn (*Crataegus* sp.), Elliot's blueberry (*Vaccinium elliottii*), Chinese privet, winged elm (*Ulmus alata*), and black cherry (*Prunus serotina*). Woody vine and herbaceous species included common greenbrier, Japanese honeysuckle, poison ivy (*Toxicodendron radicans*), and Christmas fern (*Polystichum acrostichoides*).

Scrub-Shrub Habitat

Approximately 8.44 acres of upland scrub-shrub habitat was identified within the study area (see **Figure 4.2**). Common species observed included red maple, sweetgum, loblolly pine, water oak, black willow (*Salix nigra*), tree-of-heaven (*Ailanthus altissima*), Chinese privet (*Ligustrum sinense*), *Lespedeza cuneata*, smooth sumac (*Rhus glabra*), winged sumac (*Rhus copallinum*), Japanese honeysuckle (*Lonicera japonica*), sawtooth blackberry (*Rubus argutus*), common greenbrier (*Smilax rotundifolia*), and tall goldenrod (*Solidago altissima*).

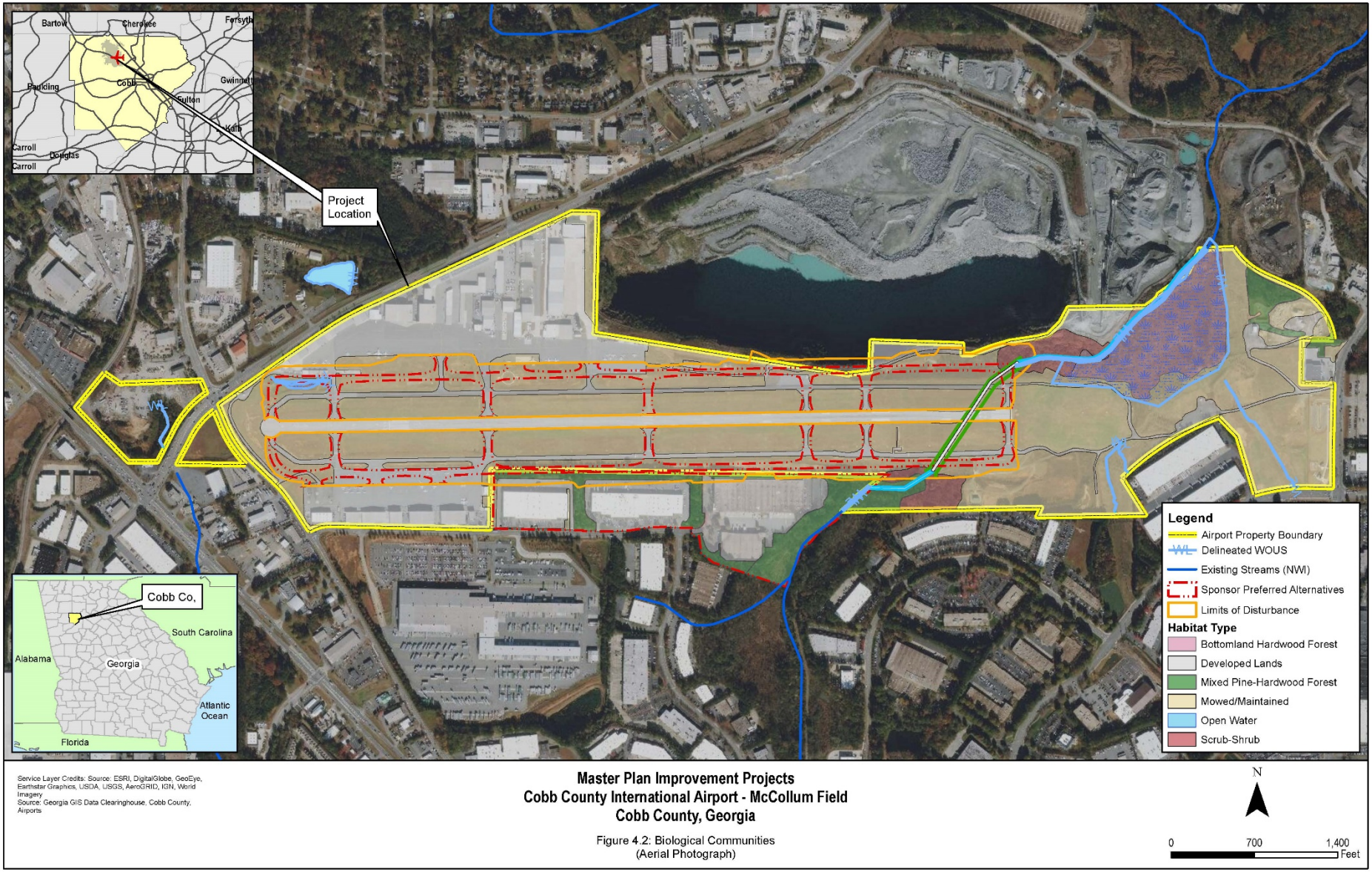
4.3.2.2 Disturbed Lands

Disturbed lands include mowed/maintained land, agricultural land, and land developed for transportation infrastructure, residential, and other uses (see **Figure 4.2**). The project study area included approximately 176.9 acres of mowed/maintained areas and 141.5 acres of developed lands (transportation infrastructure; commercial). Transportation infrastructure in the project study area included runways, taxiways, aprons, hangar areas, parking lots, and structures.

Mowed/maintained areas are managed by the Airport to prevent vegetation from becoming an obstruction to aircraft, to control wildlife activity on the airfield, and to provide an aesthetically pleasing airport facility. Plant species observed within this habitat type included dog fennel (*Eupatorium capillifolium*), goldenrod, common dandelion (*Taraxacum officinale*), white clover (*Trifolium repens*), yellow clover (*Trifolium campestre*), common mullein (*Verbascum thapsus*), fescue grass (*Festuca* spp.), bahiagrass (*Paspalum notatum*), and broomsedge bluestem (*Andropogon virginicus*). The paved areas and structures provide limited wildlife habitat in the form of travel corridors and roosting areas.

4.3.2.3 Wetlands and Open Waters

Approximately 21.3 acres of wetlands were identified within the project study area, as shown on **Figure 4.2** and discussed in detail in **Section 4.15** of this chapter. Dominant species observed within the wetlands included water oak, red maple, loblolly pine, green ash, sweetgum, button bush (*Cephalanthus occidentalis*), tag alder (*Alnus serrulata*), Pennsylvania smartweed (*Polygonum pensylvanicum*), wetland sedges (*Carex* spp.), woolgrass (*Scirpus cyperinus*), common rush (*Juncus effusus*), cattails (*Typha latifolia*), and seedbox (*Ludwigia alternifolia*).


Bartow
Cherokee
Forsyth
Paulding
Cobb
Gwinnett
Fulton
Cobb
Carroll
Douglas
Carroll
Project Location
Cobb Co.
South Carolina
Alabama
Georgia
Atlantic Ocean
Florida
Legend
Airport Property Boundary
Delineated WOUS
Existing Streams (NWI)
Sponsor Preferred Alternatives
Limits of Disturbance
Habitat Type
Bottomland Hardwood Forest
Developed Lands
Mixed Pine-Hardwood Forest
Mowed/Maintained
Open Water
Scrub-Shrub
Service Layer Credits: Source: ESRI, DigitalGlobe, GeoEye, Earthstar Graphics, USDA, USGS, AeroGRID, IGN, World Imagery
Source: Georgia GIS Data Clearinghouse, Cobb County, Airports
Master Plan Improvement Projects
Cobb County International Airport - McCollum Field
Cobb County, Georgia
Figure 4.2: Biological Communities
(Aerial Photograph)
N
0
700
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4.3.2.4 Land Disturbance Impacts to Plant Communities/Habitats

Based on the proposed grading limits of the Proposed Action Sponsor-Preferred Alternatives, it is estimated that project implementation would result in the clearing of 4.52 acres of forested habitats (0.42 acre of bottomland hardwood forest and 4.10 acres of mixed pine-hardwood forest) and 2.19 acres of scrub/shrub habitat.

Implementation of the Proposed Action would not result in impacts to open water habitat; however, it would result in the filling of approximately 0.42 acre of wetland habitat (Aquatic Resource 3), as discussed in **Section 4.15** of this chapter. Additional temporary impacts to plant communities / habitats within the project study area may be necessary in order to allow vehicle access during the construction phase. Areas cleared for temporary vehicle access would be restored to conditions suitable for their future use as part of the construction activities.

4.3.3 Fish Communities

Aquatic Resource 4 / Noonday Creek is the only aquatic resource located within the project study area that supports fish communities. Selection of the No-Action Alternative would have no effect on fish communities or other aquatic species because no construction-related habitat alteration would occur.

Implementation of the Proposed Action would result in 228 linear feet (lf) of direct permanent impacts to Aquatic Resource 4 associated with extensions of the existing box culvert to support the Taxiway 'A' and Taxiway 'B' relocation projects. The culvert would be extended by 102 feet north of the culvert outfall (102 lf of permanent impact; 25 lf of temporary impact) and by 76 feet south of the culvert inlet (76 lf of permanent impact; 25 lf of temporary impact).

Noonday Creek is considered to be suitable habitat for the Cherokee darter (*Etheostoma scotti*); therefore, a protected aquatic species survey was conducted on November 29, 2019. No Cherokee darters were collected within the survey reach. Noonday Creek also provides habitat for common fish species such as Alabama hogsucker (*Hypentelium etowanum*), blackbanded darter (*Percina nigrofasciata*), bluegill (*Lepomis macrochirus*), eastern mosquitofish (*Gambusia holbrooki*), green sunfish (*Lepomis cyanellus*), redbreast sunfish (*Lepomis auratus*), largescale stoneroller (*Campostoma oligolepis*), and yellow bullhead (*Ameiurus natalis*).

Portions of Aquatic Resource 4 would be permanently impacted as a result of implementation of the Proposed Action. North of the culvert, 0.131 acre of Noonday Creek would be impacted with implementation of Alternative 3b. South of the culvert, 0.028 acre of Noonday Creek would be impacted with implementation of Alternative 3b. The impacts to fish communities would not be considered significant because there is suitable habitat located both upstream and downstream of the impacted areas.

4.3.4 Wildlife

Selection of the No-Action Alternative would have no effect on wildlife within the study area, because no construction-related habitat alteration would occur. The majority of the Airport property consists of mowed/maintained and developed land habitats, and wildlife species that have adapted to these types of habitats (e.g., small mammals, several bird species, and reptiles) would benefit from implementation of the Proposed Action because additional mowed/maintained and developed habitats would be created as a result of constructing the three elements of the proposal. However, some of these species pose hazards to aircraft by attracting large raptors, such as red-

tailed hawks (*Buteo jamaicensis*), red-shouldered hawks (*Buteo lineatus*), and Cooper's hawks (*Accipiter cooperi*) to the airfield that could result in a wildlife strike.

In order to prevent unwanted predatory birds from utilizing the grassed areas as a foraging location, grass seed that is less attractive to small mammals and seed-eating birds would be used in these areas. In addition, the grass in these areas would be maintained at a height that is less attractive to small mammals and grass-dwelling bird species.

There are some migratory bird species, such as cliff swallows (*Petrochelidon pyrrhonota*), barn swallows (*Hirundo rustica*), and eastern phoebes (*Sayornis phoebe*) that typically nest underneath bridges and or within large box culverts, such as the structure that carries Aquatic Resource 4 underneath the airfield. Due to the presence of suitable habitat for these migratory birds, precautions may be implemented in the construction contract 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 Migratory Bird Treaty Act (MBTA) when the underlying purpose of that activity is not to take migratory birds, the U.S. Fish and Wildlife Service (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:

- Conduct activities outside of the bird nesting season to avoid the need for active nest relocation or destruction, when appropriate;
- Perform nest surveys prior to conducting clearing activities during the breeding season; and
- If possible, contact a federally-permitted rehabilitator to provide assistance in relocating an active nest.

The USFWS Information for Planning and Consultation System (IPaC System) database lists thirteen migratory bird species of concern potentially occurring within the project study area.[9] The IPaC System list included the following bird species: bald eagle (*Haliaeetus leucocephalus*), blue-winged warbler (*Vermivora pinus*), cerulean warbler (*Dendroica cerulea*), eastern whip-poor-will (*Antrostomus vociferus*), golden eagle (*Aquila chrysaetos*), Henslow's sparrow (*Ammodramus henslowii*), 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*), and wood thrush (*Hylocichla mustelina*).

The conversion of mixed pine-hardwood forest habitat to mowed/maintained or developed lands at the Airport would result in minor adverse impacts to some of the species listed above that use forested habitats for nesting and foraging (i.e. cerulean warbler, eastern whip-poor-will, and red-headed woodpecker). The conversion of upland scrub-shrub habitat to mowed/maintained habitat or developed lands at the Airport would result in minor adverse impacts to some of the species listed above that use upland scrub-shrub habitats for foraging (i.e., blue-winged warbler, Kentucky warbler; prothonotary warbler; and wood thrush). However, the creation of additional mowed/maintained habitat or developed lands would benefit the bird species that prefer open areas to forage (i.e., prairie warbler and rusty blackbird). Overall, implementation of the Proposed

[9] USFWS. *Information for Planning and Consultation System* database review. Accessed on March 22, 2019 at: https://ecos.fws.gov/ipac/.

Action would not have a significant impact on the birds listed on the USFWS list of species of concern.

In the event that an incident occurs that causes harm or injury to any migratory bird species, the contractor shall be required to report the incident immediately to the USFWS – Ecological Services Field Office at (706) 613-9493. The contractor will also be required to contact the GADNR – Wildlife Resources Division (WRD) Nongame Conservation Division at (770) 761-3035.

The 0.42-acre wetland habitat (Aquatic Resource 3) located at the Runway 9 End and the 18.4-acre wetland habitat (Aquatic Resource 5) located northeast of the Runway 27 End provide suitable foraging habitat for the king rail and the Henslow's sparrow. These wetlands also provide suitable habitat for other birds, small mammals, small reptiles, amphibians, and insects. Aquatic Resource 3 would be converted to developed land with implementation of the Sponsor-Preferred Alternative for the relocation of Taxiway A. That loss, less than two percent of the wetland habitat within the project study area, would represent a minor adverse impact to the wildlife communities that prefer this habitat type.

4.3.5 Threatened and Endangered Species

The Endangered Species Act of 1973, as amended (ESA), requires federal agencies, in consultation with and assisted by the USFWS, to ensure that their actions are not likely to jeopardize the continued existence of endangered or threatened species or result in the destruction or adverse modification of critical habitat of such species. In accordance with Section 7(c) of the ESA, current documentation of federally listed threatened and endangered species and designated critical habitats that could potentially occur in the vicinity of the project study area was obtained from the USFWS. The project study area is located completely within Cobb County, Georgia. Therefore, only species and habitats documented to occur in Cobb County were given consideration during the field reconnaissance of the study area.

An official protected species list was obtained from the USFWS on September 28, 2020 via the IPaC database (see **Appendix B**). In addition, the Biodiversity Portal operated and maintained by the GADNR – Wildlife Resources Division (WRD) was also reviewed to determine which federally protected species are known to occur in Cobb County. **Table 4.8** provides a list of the federally protected species known to occur in Cobb County.

A literature search was performed for the federally listed species to determine their habitat requirements and to find descriptions of the species that would facilitate their identification during a field survey. Important sources of reference information included natural resource agency data and published reports, various botanical and faunal literature, and available Recovery Plans.

Protected Species with Potentially Suitable Habitat within the Project Study Area

Pool sprite (*Amphianthus pusillus*) – This species is federally listed as "threatened." Suitable habitat for pool sprite consists of shallow, flat-bottomed depressions on granite outcrops, with thin, gravel soils and seasonal (winter through spring) inundation. The pools must be located within full sun and deep enough to hold water for several weeks. No granite outcrops containing vernal pools were identified within the project study area; therefore, suitable habitat for pool sprite is not present.

Table 4.8
Federally Protected Species Known to Occur in Cobb County, Georgia

Scientific name	Common name	Federal Status	Survey Season	Habitat Present	Listing Agency
Amphianthus pusillus	Pool sprite	Threatened	March through April (flowering) or April through May (fruiting)	No	USFWS; GADNR
Etheostoma scotti	Cherokee darter	Threatened	March 1st through November 31st	Yes	USFWS; GADNR
Medionidus penicillatus	Gulf moccasinshell	Endangered	March 1st through November 31st	No	GADNR
Myotis septentrionalis	Northern long-eared bat	Threatened	March 20th through September 21st	Yes	USFWS
Platanthera integrilabia	White fringeless orchid	Threatened	mid-July through late August (flowering)	No	USFWS; GADNR
Rhus michauxii	Michaux's sumac	Endangered	June through August (flowering) or August through October (fruiting)	No	USFWS; GADNR

Sources:
USFWS (2019). *Information, Planning, and Conservation* database review. Accessed on March 22, 2019 at: https://ecos.fws.gov/ipac/.
GADNR-WRD (2019). *Georgia Rare Species and Natural Community Data*. Accessed on March 25, 2019 at: http://www.georgiawildlife.org/rare_species_profiles.

Cherokee darter (*Etheostoma scotti*) – This species is federally listed as "threatened." It is a small fish, reaching 1.6 to 2.6 inches in length, with a rounded snout, a distinct dark bar beneath the eye, and 7 to 8 dorsal blotches that may fuse with 7 to 8 lateral blotches. Breeding males have an anterior red window and a single broad reddish band in the first dorsal fin, red in the second dorsal fin, and a green-edged anal fin.

Cherokee darters inhabit small to medium-sized streams where they are found in association with gravel and cobble substrate. They may also occur in pools at the head or tail of riffles. This species is intolerant of streams with moderate or thick deposits of silt and sediment. The Cherokee darter can be found in the Etowah River Watershed within the upper Coosa River system. It is known from only about twenty small tributaries to the Etowah River. Noonday Creek / Aquatic Resource 4 was identified as suitable habitat for Cherokee darter; therefore, a protected aquatic species survey was conducted to determine the presence / absence of this federally listed fish.[10]

Gulf moccasinshell (*Medionidus penicillatus*) – This mussel is federally listed as "endangered." The gulf moccasinshell is a small, sculptured, rayed freshwater mussel.[11] It occurs in a wide range of habitats, including sandy areas with slight current, streams and rivers where there is a moderate current and sand and gravel substrates, and in muddy sand substrates around tree roots in medium-sized streams with moderate current."[12] According to the USFWS, this species inhabits channels

[10] Edwards-Pitman Environmental, Inc. (2019). Protected Aquatic Species Survey Report, Cobb County: Cobb County International Airport – Master Plan Improvement Projects. March 2019.
[11] NatureServe Explorer (March 2018). Accessed on 3/25/19 at: www.natureserve.org.
[12] *Ibid.*

of medium-sized creeks to large rivers with sand and gravel or silty sand substrates in slow to moderate currents. The historic range of this species includes the ACF River system in Georgia, Florida, and Alabama. This species does not occur within the Etowah River watershed; therefore, no suitable habitat for gulf moccasinshell was identified within the project study area.

Northern long-eared bat (*Myotis septentrionalis*) – This species is a federally threatened bat that has a fur color of medium to dark brown on the back and tawny to pale brown on the underside.[13] This bat is distinguished by its long ears, and when folded alongside the head, the tips of the ears extend past the tip of the nose. This species is medium-sized, with a body length of 3 to 3.7 inches, a forearm length of 1.3 to 1.5 inches, a wingspan of 9 to 10 inches, and an average weight of 0.24 ounce.

This species of bat spends their winter hibernating in caves and mines. They use areas in various sized caves or mines with constant temperatures, high humidity, and no air currents. They are found most often in small crevices or cracks within their hibernacula. During the summer, the bats roost singly or in colonies underneath bark or in cavities or crevices of both live trees and snags. However, males and non-reproductive females may also roost in caves and mines. This species of bat appears to choose roost trees based on suitability to retain bark or provide cavities or crevices.

A Habitat Suitability Assessment Study was conducted on March 26, 2019 to determine the presence / absence of suitable habitat for northern long-eared bat within the project study area.[14] The mixed pine-hardwood and bottomland hardwood forest habitats were considered to provide potentially important roosting, foraging, and commuting habitat for northern long-eared bats. In addition, the mowed/maintained, scrub/shrub, developed lands, and open water habitats were determined to provide suitable foraging and commuting habitat for northern long-eared bats.

White fringeless orchid (*Platanthera integrilabia*) – This plant is federally listed as "threatened." It is a slender, erect, white-flowered perennial orchid reaching a height of approximately 24 inches.[15] The inflorescence is a terminal spike with up to 20 white, long-spurred flowers. This plant blooms from mid-July through late August.

The white fringeless orchid is generally found in wet, flat, boggy areas at the head of streams or seepage slopes. It is often found in association with *Sphagnum* species and cinnamon fern (*Osmunda cinnamomea*), netted chain fern (*Woodwardia areolata*), and New York fern (*Thelypteris noveboracensis*), in acidic muck or sand, and in partially, but not fully shaded areas. The range of white fringeless orchid in Georgia includes the Blue Ridge Province. Aquatic Resource 3 and Aquatic Resource 5 are wetlands located adjacent to streams; however, none of the typical associate species (e.g., cinnamon fern, netted chain fern, or New York fern) were identified within the wetland. Therefore, this wetland is not considered suitable habitat for white fringeless orchid, and no suitable habitat is present.

[13] USFWS – Midwest Region (October 29, 2018). Endangered Species – Northern Long-Eared Bat (*Myotis septentrionalis*). Accessed on March 25, 2019 at: https://www.fws.gov/Midwest/endangered/mammals/nleb/index.html.

[14] Ecological Solutions, Inc. (2019). Habitat Assessment Survey Report for Northern Long-eared bat (*Myotis septentrionalis*). Master Plan Improvement Projects, Cobb County International Airport – McCollum Field. March 2019.

[15] NatureServe Explorer (March 2018). "An Online Encyclopedia of Life." Accessed on March 25, 2019 at: www.natureserve.org.

Michaux's sumac (*Rhus michauxii*) – is federally listed as "endangered." It is a colonial shrub with erect stems approximately 1 to 3 feet tall.[16] The leaves are deciduous, alternate, compound with 9 to 13 leaflets on a reddish leaf stalk. The leaf stalk is winged between the second and third uppermost pairs of leaflets. The leaflets are 1½ to 3½ inches long, oval to oblong, sharply toothed, and mostly opposite. Female and male flower are on separate plants. The flowers are arranged in a dense, tightly branched cluster at the top of the stem. The flowers have four to five, greenish-yellow petals, and the fruit is less than ¼ long, dark red, arranged in dense clusters. All parts of this plant are densely hairy.

Michaux's sumac is shade-intolerant and inhabits sandy or rocky open woods, highway rights-of-way, roadsides, or the edges of artificially maintained clearings; it appears to survive best in areas where some form of disturbance has provided an open area.[17] This species is endemic to the coastal plain and piedmont of Virginia, North Carolina, South Carolina, Georgia, and Florida. Surveys for Michaux's sumac are best conducted during flowering (June through August) or during fruiting (August through October); however, the hairy stems are identifiable year-round.

The project study area contains disturbed grassed habitats that are mowed on a regular basis, as well as scrub shrub habitats at two locations on the airfield. However, the level of mowing activity within the grassed habitats is so high that it prevents shrub species like Michaux's sumac from recruiting these areas. The scrub/shrub habitat located just north of the Runway 27 End is so densely covered with *Lespedeza cuneate* that no other plants can recruit the area. No individual Michaux's sumac plants were observed within the scrub/shrub habitat located to the south of the Runway 27 End.

Biological Effect Determinations

No granite outcrops containing vernal pools were identified within the project study area; therefore, there is no suitable habitat for this species present. Gulf moccasinshell is not known to occur within the Etowah River Watershed; therefore, there is no suitable habitat for this species present within the project study area. Due to the lack of suitable habitat, it is recommended that implementation of the Proposed Action would have **no effect** on pool sprite or the gulf moccasinshell.

A protected aquatic species survey was conducted to determine the presence / absence of Cherokee darters within the project study area. Although no Cherokee darters were identified in the study reach during the survey, Aquatic Resource 4 / Noonday Creek is considered suitable habitat for this species. The relocation of Taxiways 'A' and 'B' would impact approximately 0.09 acre and 0.028 acre of Cherokee darter habitat, respectively, which are considered minor impacts because there is ample similar habitat in the nearby vicinity. As a result, it is recommended that implementation of the Proposed Action **may affect, but is not likely adversely affect** the Cherokee darter.

Based on the results of the Habitat Suitability Assessment Study, it was determined that there is suitable roosting, foraging, and commuting habitats for northern long-eared bat present within the project study area. Implementation of the Taxiway 'A' element of the Proposed Action would result in the clearing of approximately 0.42 acre of bottomland hardwood forest habitat that is

[16] GADNR-WRD (2019). Rare species profile – Michaux's sumac (*Rhus michauxii*). Accessed on March 25, 2019 at: https://georgiabiodiversity.org/natels/general-info.html.

[17] USFWS – Raleigh Ecological Field Office (Last updated: 8/24/17). Michaux's sumac species profile. Accessed on March 25, 2019 at: https://www.fws.gov/raleigh/species/es_michauxs_sumac.html.

classified as suitable roosting habitat for the northern long-eared bat. Implementation of the Taxiway 'B' relocation element of the Proposed Action would result in the clearing of approximately 4.11 acres of mixed pine-hardwood forest habitat that is also classified as suitable roosting habitat for this species, including 0.11 acre within a deed restricted area (see **Appendix B**). The direct impacts to northern long-eared bat habitat with implementation of the three Sponsor-Preferred Alternatives for the Proposed Action would total 4.53 ac.

Because these habitats are considered suitable roosting habitat for this species, seasonal clearing restrictions are recommended at the Airport. For the protection of foraging, roosting, and flyway habitat, tree clearing activities at the Airport would be restricted from April 1st through October 15th, which is the normal season for bats in Georgia. Due to the anticipated impacts to suitable northern long-eared bat habitat, it is recommended that implementation of the Proposed Action **may affect, but is not likely adversely affect** this species.

Aquatic Resources 3 and 5 are located adjacent to streams; however, none of the plant species associated with white fringeless orchid were observed during the field investigation. As a result, these resources were not considered suitable habitat for this species. Due to the lack of suitable habitat within the project study area, it is recommended that implementation of the Proposed Action would have **no effect** on white fringeless orchid.

The project study area contains disturbed habitats considered suitable for Michaux's sumac. The grassed habitats are mowed so frequently that recruitment of this shrub species is not likely. Two areas of scrub/shrub habitat were surveyed for Michaux's sumac as part of the field investigation. The habitat located north of the Runway 27 End is covered with a dense monoculture of *Lespedeza cuneate*, which does not allow other species to recruit the area. The disturbed area south of the Runway 27 End was also surveyed for the potential presence of Michaux's sumac, and no individual plants were observed. Based on the presence of suitable habitat and results of the field investigation for Michaux's sumac, it is recommended that implementation of the Proposed Action **may affect, but is not likely adversely affect** this species.

4.3.6 Indirect and Cumulative Impacts on Plants, Fish, Wildlife, and Threatened and Endangered Species

Selection of the No-Action Alternative would not result in changes to the existing conditions at the Airport; therefore, it would have no indirect or cumulative impacts on plant communities, fish communities, wildlife, or threatened and endangered species. Implementation of the Sponsor-Preferred Alternatives that comprise the Proposed Action would not result in indirect impacts to plant communities and threatened species habitat because no future projects directly associated with any of the three elements of the Proposed Action are planned in areas that include those habitats. However, implementation of the Proposed Action would result in cumulative impacts on plant communities.

Past projects at the Airport between 2000 and 2017 have not resulted in clearing impacts to forested habitats. Implementation of the Proposed Action would result in the clearing of approximately 4.52 acres of forested habitats (0.42 acre of bottomland hardwood forest and 4.10 acres of mixed pine-hardwood forest). As a result, the total cumulative impacts on forested habitat (mixed pine-hardwood and bottomland hardwood) would total approximately 4.52 acres.

Implementation of the Proposed Action would also result in cumulative impacts on fish communities, because Aquatic Resource 4 is known to support aquatic species. The box culvert

installation project completed in the year 2000 resulted in approximately 1,185 lf of permanent impacts to Noonday Creek. Implementation of the Proposed Action would result in an additional 228 lf of impacts to this stream associated with the Taxiway 'A' and Taxiway 'B' relocations; therefore, cumulative impacts to Aquatic Resource 4 would total approximately 1,413 lf.

Implementation of the Proposed Action and reasonably foreseeable future actions on the Airport property would also result in cumulative impacts to threatened species habitat. There are no future projects programmed for the Airport within the 3-year planning period of this EA. As mentioned above, the total cumulative impacts on forested habitats (mixed pine-hardwood and bottomland hardwood) on the Airport property would total approximately 4.52 acres. Therefore, cumulative impacts to suitable northern long-eared bat habitat would also total 4.52 acres.

4.4 CLIMATE

Executive Order (EO) 13514 (74 *FR* 52117, October 8, 2009) made it the policy of the U.S. that federal agencies "… measure, report, and reduce their GHG emissions from direct and indirect activities." This EO has been revoked. Executive Order 13653 (78 *FR* 66817, November 6, 2013) builds on EO 13514 and establishes "… direction for federal agencies on how to improve on climate preparedness and reliance strategies." EO 13693 (80 *FR* 15869) reaffirms the policy of the United States that federal agencies measures, report, and reduce their GHG emissions from direct and indirect activities; sets sustainability goals for all agencies to promote energy conservation, efficiency, and management while reducing energy consumption and GHG emissions; and builds on the adaption and resiliency goals in EO 13653 to ensure agency operations and facilities prepare for the impacts of climate change.

Research has shown that there is a direct correlation between fuel combustion and greenhouse gas (GHG) emissions. The International Energy Agency estimates that GHG emissions from aircraft account for approximately 1.5 percent of all anthropogenic GHG emissions globally.[18] The effect of GHG emissions on climate change is a global concern; therefore, the effects of a proposed action on climate change must be evaluated on a global scale.

Implementation of the Proposed Action would not result in a change in aircraft fleet mix or an increase in aircraft operations at the Airport when compared with the No-Action Alternative. However, for the Build alternative, aircraft taxi times were adjusted to reflect the relocation of the Taxiways 'A' and 'B' (**Table 4.9**). Airport operational emissions sources other than aircraft (i.e., auxiliary power units, ground service equipment and motor vehicles) were not considered in the analysis as these source emissions would not change as a result of the proposed improvements.

Based on the results of the taxiing time analysis, implementation of the Proposed Action would result in a reduction in both taxi-in and taxi-out times. Therefore, it is estimated that GHG emissions created by taxiing aircraft would be reduced as a result of the two taxiway relocation projects. As discussed in **Section 4.2, Air Quality**, both the construction and operational emissions for the Proposed Action are well below the *de minimis* thresholds for the six criteria pollutants. Therefore, it is anticipated that implementation of the Proposed Action would have a minimal impact on GHG emissions when compared to the No-Action Alternative.

[18] International Energy Agency (2008). *Intergovernmental Panel on Climate Change 2007*; Kim, Fleming et al. 2007.

Table 4.9 Derived Total Aircraft Taxi Times (minutes)					
Scenario	**Average Delay Time**	**Travel Time (taxiing-in)**	**Travel Time (taxiing-out)**	**Total Taxi-in Time**	**Total Taxi-out Time**
No Build	0.30	2.14	3.33	2.44	3.63
Build	0.30	2.10	3.29	2.40	3.59
Source: USDOT FAA Advisory Circular (AC) Report No. 150/5060-5, *Airport Capacity and Delay*, September 9, 1983.					

There are no significance thresholds for aviation GHG emissions, nor has the FAA identified specific factors to consider in making a significance determination for GHG emissions.[19] There are currently no accepted methods of determining significance applicable to aviation projects given the small percentage of emissions they contribute. CEQ has noted that "it is not currently useful for the NEPA analysis to attempt to link specific climatological changes, or the environmental impacts thereof, to the particular project or emissions, as such direct linkage is difficult to isolate and to understand."[20] Accordingly, it is not useful to attempt to determine the significance of such impacts. There is a considerable amount of ongoing scientific research to improve understanding of global climate change and FAA guidance will evolve as the science matures or if new Federal requirements are established.

4.5 COASTAL RESOURCES

Cobb County is not one of the eleven counties located within the coastal zone of Georgia. Therefore, neither selection of either the No-Action Alternatives nor implementation of one or more elements of the Proposed Action would result in any direct, indirect, or cumulative impacts to coastal resources under the applicable state coastal management programs, which are the Coastal Zone Management Act of 1972, the Coastal Barrier Resources Act of 1982, or the Coastal Barrier Improvement Act of 1990.[21,22]

4.6 DEPARTMENT OF TRANSPORTATION ACT, SECTION 4(f)

Section 4(f) of the U.S. Department of Transportation (DOT) Act of 1966 protects significant publicly owned parks, recreational areas, wildlife and waterfowl refuges, and public and private historic sites. There is one public park, Aviation Park, within the Airport property and located at the easternmost boundary of the Airport property (**Figure 4.3**). The 3-acre park was constructed as part of the Town Center Community Alliance and provides the following amenities:

- An aviation-themed playground with an air traffic control tower themed restroom building and airplane wing picnic pavilion;
- Open green space, landscaping and lighting, and public art display areas;
- A Town Center Bike Share station; and
- A dog water bowl.

[19] FAA (2015). *1050.1F Desk Reference*. July 2015.
[20] CEQ (2010). Draft Guidance, *Consideration of the Effects of Climate Change and Greenhouse Gas Emissions*, 75 FR 8046. February 23, 2010.
[21] 16 U.S.C.§ 1456(c)
[22] USFWS (2018) *Coastal Barrier Resources System*. April 16, 2018.

Service Layer Credits: Source: ESRI, DigitalGlobe, GeoEye, Earthstar Graphics, USDA, USGS, AeroGRID, IGN, World Imagery
Source: Georgia GIS Data Clearinghouse, Cobb County, Airports

Master Plan Improvement Projects
Cobb County International Airport - McCollum Field
Cobb County, Georgia

Figure 4.3: Section 4(f) Resources
(Aerial Photograph)

There are no other Section 4(f)-protected resources located within or adjacent to the Airport property. With selection of the No-Action Alternative, the Airport would remain in its present condition, and no construction activities would occur that would adversely impact Aviation Park. Therefore, selection of this alternative would not result in direct, indirect, or cumulative impacts on properties protected under Section 4(f) of the DOT Act.

Implementation of the Proposed Action also would not result in adverse impacts to Aviation Park. Therefore, no direct impacts to Section 4(f)-protected properties would occur as a result of the three projects associated with the Proposed Action. Because there would be no direct impacts, there also would be no indirect or cumulative impacts to Section 4(f) properties.

4.7 FARMLANDS

The Farmland Protection Policy Act (FPPA) is intended to minimize the impact federal programs have on the unnecessary and irreversible conversion of farmland to nonagricultural uses.[23] It encourages alternative actions in order to lessen adverse effects on farmland. It also assures that federal programs are operated in a manner that is compatible with state, local governments, and private programs that protect farmland.

No direct impacts to farmland would occur with selection of the No-Action Alternative, because there would be no change from the current conditions at the Airport. Therefore, there also would be no adverse indirect or cumulative impacts to farmlands as a result of selection of the No-Action Alternative.

The project study area contains approximately 112 acres of soils classified as prime farmland and approximately 79 acres of soils classified as farmland of statewide importance (**Figure 4.4**). Although the project study area contains 191 acres of farmland soils, implementation of the Proposed Action would not result in impacts to farmland protected by the FPPA as none of the property is currently being used for agricultural purposes. Therefore, no direct, indirect, or cumulative impacts on farmland would occur as a result of implementation of the Proposed Action

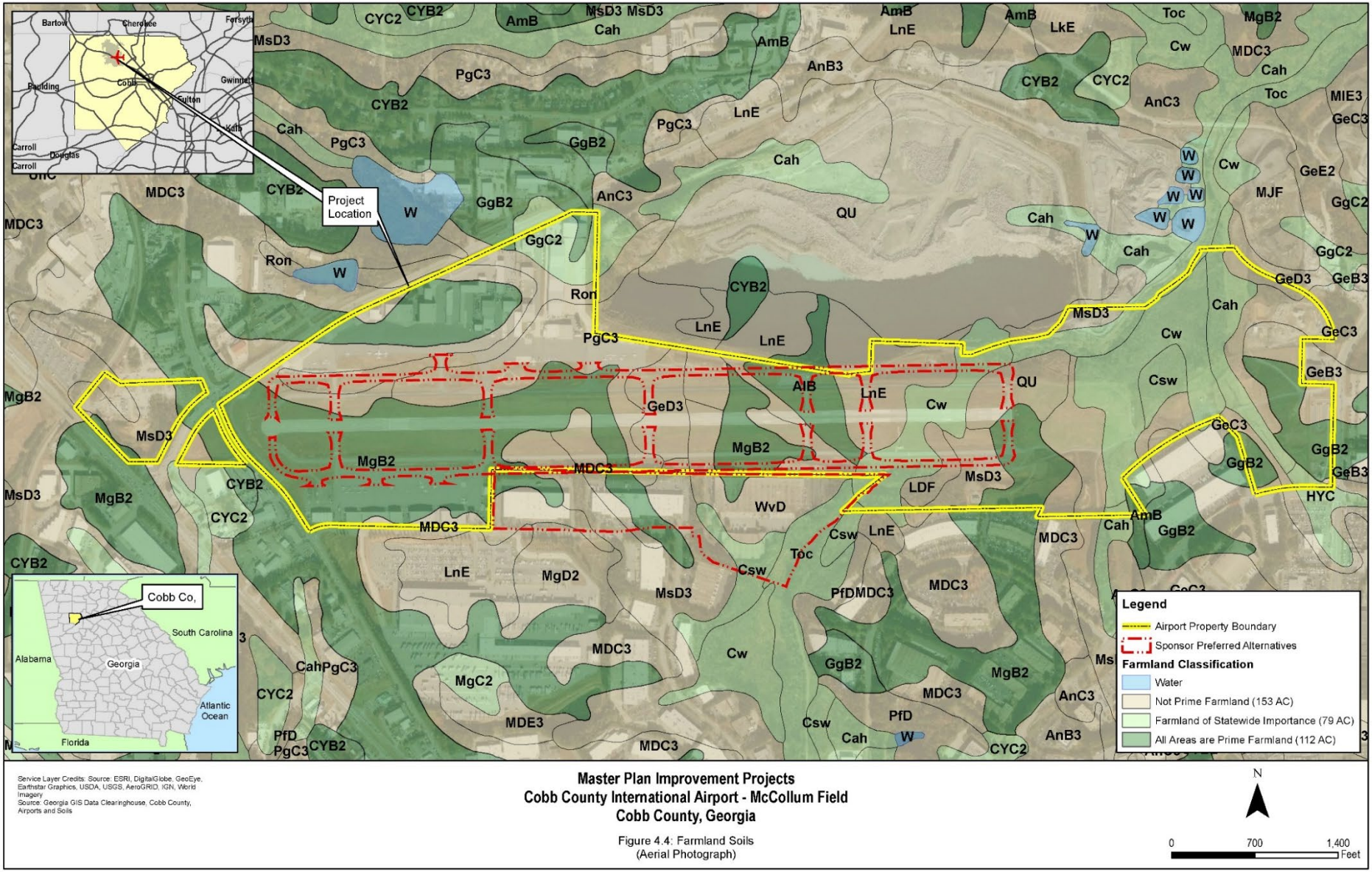
4.8 HAZARDOUS MATERIALS, SOLID WASTE, AND POLLUTION PREVENTION

4.8.1 Hazardous Materials

Hazardous materials are those substances defined by the Comprehensive Environmental Response, Compensation, and Liability Act, as amended by the Superfund Amendments and Reauthorization Act, and those substances defined by the Toxic Substances Control Act. In general, hazardous materials include 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.[24]

A review of regulatory database records was performed to identify known or potential hazardous materials sites, hazardous waste generators, and hazardous materials users associated with the project study area. These environmental databases contain information about hazardous sites from multiple federal and state regulating agencies, including the U.S. EPA and the GADNR-EPD (**Appendix D – Hazardous Materials Report**). The database search identified twenty-two hazardous materials sites and hazardous waste sites within a 1-mile radius of the Airport (**Figure 4.5; Table 4.10; Exhibit D**). The Airport is listed in the database review as Map ID# A.

[23] USDA (2012). *Farmland Protection Policy Act Manual*. August 2012. Accessed on March 25, 2019.
[24] Resource Conservation and Recovery Act (RCRA) Subtitle C, 40CFR Part 251.


Project Location
Cobb Co.
South Carolina
Alabama
Georgia
Atlantic Ocean
Florida
Legend
Airport Property Boundary
Sponsor Preferred Alternatives
Farmland Classification
Water
Not Prime Farmland (153 AC)
Farmland of Statewide Importance (79 AC)
All Areas are Prime Farmland (112 AC)
Service Layer Credits: Source: ESRI, DigitalGlobe, GeoEye, Earthstar Graphics, USDA, USGS, AeroGRID, IGN, World Imagery
Source: Georgia GIS Data Clearinghouse, Cobb County, Airports and Soils
Master Plan Improvement Projects
Cobb County International Airport - McCollum Field
Cobb County, Georgia
Figure 4.4: Farmland Soils
(Aerial Photograph)
N
0
700
1,400
Feet

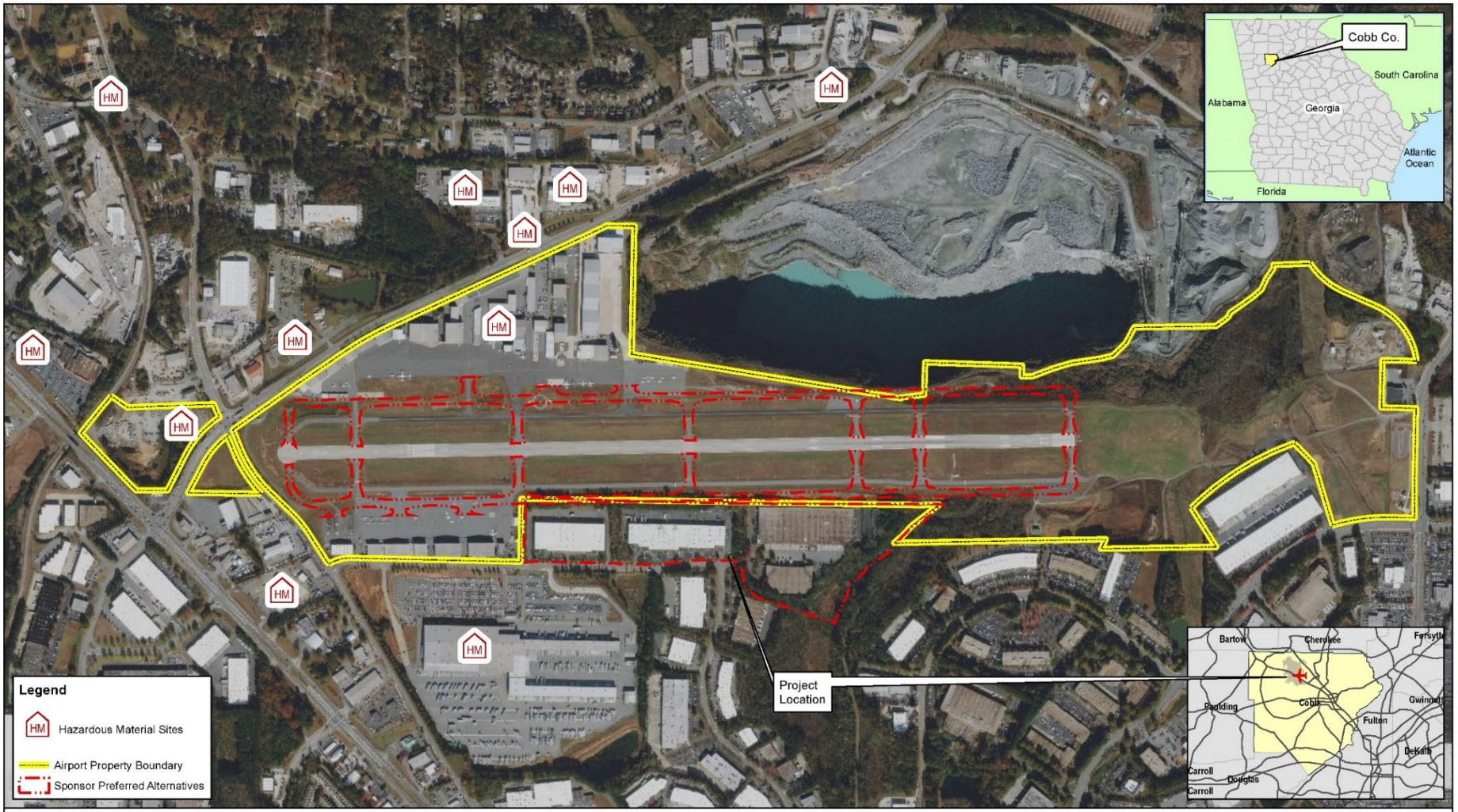
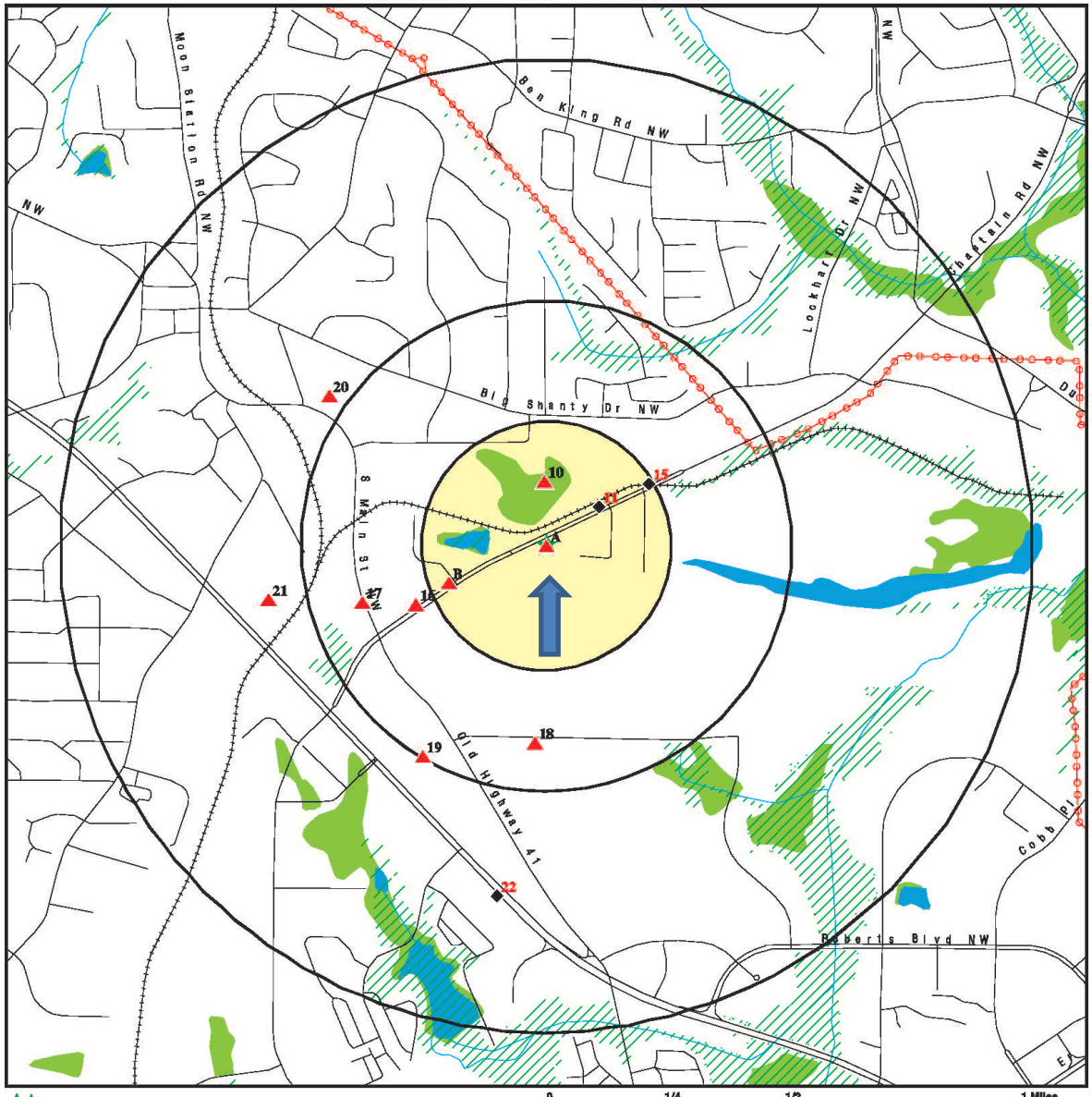

Cobb Co.
South Carolina
Alabama
Georgia
Atlantic Ocean
Florida
HM
Legend
Hazardous Material Sites
Airport Property Boundary
Sponsor Preferred Alternatives
Project Location
Bartow
Cherokee
Forsyth
Paulding
Cobb
Gwinnett
Fulton
DeKalb
Carroll
Douglas
Carroll
Service Layer Credits: Source: ESRI, DigitalGlobe, GeoEye, Earthstar Graphics, USDA, USGS, AeroGRID, IGN, World Imagery
Source: Georgia GIS Data Clearinghouse, Cobb County, Airports
Master Plan Improvement Projects
Cobb County International Airport - McCollum Field
Cobb County, Georgia
Figure 4.5: Hazardous Materials Sites
(Aerial Photograph)
N
0
700
1,400
Feet

TABLE 4.10
Potential Hazardous Materials Sites in the Vicinity of the Airport

Map ID[(1)]	Site Name	Events	Distance / Direction (miles)
A1 & A8	Big Shanty Aviation, Inc.	Release: 10/24/95 No Further Action (NFA): 1/25/96	0.0
A2, A6, A7, & A9	Cobb County Airport	Release: 3/11/94 NFA: not reported	0.0
A3	ARFF Fire Station 31	None	0.0
A4 & A5	Gem City Aviation, Inc.	None	0.0
10	Consolidated Engineering	None	0.125 mile north
11	Aeros Engines	None	0.128 mile northeast
B12	Kennesaw Readiness Center and field Maintenance	None	0.209 mile west-southwest
B13 & B14	Georgia Air National Guard	Release: 6/8/04 NFA: 9/1/04	0.209 mile west-southwest
15	Guardian Industrial Services, Inc.	None	0.241 mile east-northeast
16	Thomas M Anderson Trucking Company	Release: 8/5/9 NFA: 2/7/97	0.289 mile west-southwest
17	Hugh L. Smith	None	0.391 mile west-southwest
18	FedEx Ground	Release: 10/8/15 NFA: 10/15/15 Release 4/6/11 NFA: 6/14/11	0.401 mile south
19	Tidwell Jim Ford, Inc.	Release: 12/13/93 NFA: 4/18/94	0.497 mile south-southwest
20	Sardis Road Creosote Site	None	0.538 mile northwest
21	Plaza Cleaners	None	0.578 mile west
22	Pavilion Cleaners (former)	None	0.723 mile south

Note:
[(1)] Map IDs listed are shown on **Exhibit D**.



This report includes Interactive Map Layers display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME:	Cobb County International Airport	CLIENT:	Michael Baker International
ADDRESS:	1723 Mccollum Parkway NW Kennesaw GA 30144	CONTACT:	Paul F. Condit
LAT/LONG:	34.016326 / 84.602725	INQUIRY #:	5598253.2s
		DATE:	March 22, 2019 9:26 am

Exhibit D
Hazardous Materials Site Locations *(Source: EDR 2019)*

There has been one hazardous materials incident at the Airport since 1991. There have been six other confirmed releases at various facilities located within a 1-mile radius of the Airport property. Each of these incidents received a "No Further Action" (NFA) Required statement from the GADNR-EPD; therefore, each incident is considered closed by the enforcement regulatory agency (see **Appendix D**).

The Airport property contains five Aboveground Storage Tanks (ASTs). Three of the tanks are located on the north apron near the ATCT, and two of the tanks are located on the existing south apron. The Airport provides both Avgas 100 LL aviation fuel as well as Jet A fuel. As mentioned previously, there has been only one confirmed release of fuel at RYY that occurred on 3/11/94. The incident involved a release of approximately 20 gallons of fuel that escaped containment; however, no additional information regarding this incident was available in the database review report (see **Appendix D**).

Selection of the No-Action Alternative would not result in any changes to the Airport that could potentially lead to direct, indirect, or cumulative impacts to hazardous materials sites. None of the five ASTs containing hazardous materials that are located on the Airport property would be affected as a result of implementation of the Proposed Action. Therefore, no direct or cumulative impacts to hazardous materials sites would occur as a result of the Proposed Action. Implementation of the Proposed Action also would not result in indirect impacts to hazardous materials sites because there are no future planned project associated with any of the three elements of the Proposed Action that contain hazardous materials.

4.8.2 Solid Waste

The potential for the generation of solid waste was examined for the No-Action Alternatives and the three elements that comprise the Proposed Action. The areas of concern include potential long-term generation of solid waste from Airport operations; potential temporary generation of solid waste from construction activities; potential operation of runway facilities adjacent to active landfills that accept putrifiable waste where a bird-strike hazard may be present; and the Airport's ability to comply with FAA Order 5200.5A, "*Waste Disposal Sites on or near Airports*."

According to FAA Order 5200.5A, waste disposal sites that have the potential to attract birds are considered incompatible if they are located within 10,000 lf of a runway that is being used (or is planned to be used) by turbine-powered aircraft, or that are located within a 5-mile radius of a runway that attracts or sustains hazardous bird movements into or across the runways and/or approach and departure patterns of aircraft.

There would be no development on the Airport associated with the No-Action alternatives. No construction activities would occur, and therefore no demolition debris would be generated. Selection of the No-Action Alternatives would not result in adverse direct, indirect, or cumulative impacts regarding the generation of solid waste.

All earthwork materials (soil) would be expected to remain onsite. Any trees removed would be made available for recycling by a third party for a use such as lumber or firewood, and other vegetation that would be removed during construction would be mulched and recycled or disposed of at the nearest landfill. Construction of any or all of the three elements of the Proposed Action would result in the generation of waste in the form of construction debris; however, all of the waste would be disposed of at a facility that accepts commercial and industrial waste.

The nearest landfill located in the vicinity of the Airport property is the Dixie Landfill, which is approximately 27,652 lf (5.24 miles) northeast of the Airport property. As a result, implementation of the Proposed Action would not result in an encroachment on the 10,000-foot buffer between the Airport and the Dixie Landfill. No indirect or cumulative impacts in the form of the generation of solid waste would be anticipated for future projects within the planning period of this EA.

4.8.3 Pollution Prevention

Selection of the No-Action Alternative would not result in any changes to the existing conditions at the Airport; therefore, there would be no need to update the current Stormwater Pollution Prevention Plan (SWPPP). Selection of this alternative also would not result in indirect or cumulative impacts that would affect pollution prevention at the Airport or developments adjacent to the Airport. Implementation of the Proposed Action would result in the need for the Airport to update its current SWPPP in order to account for the additional impervious surface on the property.

4.9 HISTORICAL, ARCHITECTURAL, ARCHAEOLOGICAL, AND CULTURAL 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 National Register of Historic Properties (NRHP).[25] 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.

Historic architectural and archaeological resources, such as houses, churches, monuments, and cemeteries, as well as prehistoric sites, are to be avoided wherever possible when constructing or performing improvements at airports. Resources identified during the planning or construction of a project must be evaluated to determine whether they are listed on or are potentially eligible for listing on the NRHP.

As defined in 36 CFR Part 800.16(d), the APE is defined as "... the geographical area or areas within which an undertaking may directly or indirectly cause changes in the character or use of historic properties, if any such properties exist." Based on this definition and on the nature and scope of the Proposed Action, the APE was defined as all properties physically affected by project implementation, all properties visible from the project area, and locations where the Proposed Action may alter or disturb surface and subsurface soils that contain, or may contain, archaeological sites.

Brockington and Associates, Inc. conducted a Phase I survey of the Area of Potential Effects (APE) for the Proposed Action from December 17, 2018 to December 18, 2018.[26] The background research identified 35 previously recorded archaeological sites within 0.6 mile of the APE or within one kilometer of the APE. Four of these sites are located on Airport property, three of which are within the APE of the Proposed Action.

[25] National Park Service (2019). National Register of Historic Places. Access on March 28, 2019 at: https://www.nps.gov/subjects/nationalregister/index.htm.

[26] Brockington & Associates, Inc. (2019). *Phase I Cultural Resources Survey, Cobb County International Airport – McCollum Field. Master Plan Improvement Areas*. March 2019.

4.9.1 Historic Architectural Resources

The APE was surveyed for historic architectural resources (**Appendix E – Phase I Cultural Resources Survey Report**). The field survey consisted of a pedestrian inspection of the APE. The architectural resources field survey found no historic architectural resources in the project area. The field survey found that the project viewshed consists of non-historic commercial and industrial developments; therefore, there were no unrecorded resources over 50 years old in the APE.

Selection of the No-Action alternatives would not result in adverse impacts to historic architectural resources because there would be no changes in the current conditions at the Airport. There are no NRHP-eligible historic architectural resources located within the APE; therefore, it is recommended that implementation of the Proposed Action would have no direct or cumulative impacts on historic architectural resources. Furthermore, since there are no NRHP-listed or eligible historic sites in the vicinity of the Airport property, it is anticipated that implementation of any or all elements comprising the Proposed Action also would have no indirect adverse impacts on historic properties.

4.9.2 Archaeological Resources

The APE was surveyed for archaeological resources (see **Appendix E**). The archaeological field survey consisted of a pedestrian inspection and systematic and judgmental shovel testing. Shovel testing took place in less disturbed sections but were not excavated on steeply sloping terrain (greater than 20 percent), in standing water, in extremely wet areas, in areas that have been highly disturbed (i.e., excavated by heavy equipment), or where subsoils are present on the surface.

Most of the APE consists of disturbed soils from previous Airport construction projects; therefore, the majority of the APE did not require shovel testing. However, judgmental shovel testing was conducted in the proposed Southside Basing Area, on a low terrace above Noonday Creek.[27] Judgmental shovel testing was also performed at the previous locations of archaeological Sites 9CO312 and 9CO913; however, no artifacts were recovered from either site.[28]

Selection of the No-Action alternatives would not result in impacts to archaeological resources because there would be no changes in the current conditions at the Airport. There are no NRHP-eligible archaeological sites located within the APE; therefore, it is recommended that implementation of any or all elements comprising the Proposed Action would have no direct or cumulative impacts on archaeological resources. Furthermore, since there are no future planned projects associated with any of the three elements of the Proposed Action, it is anticipated that implementation of the Proposed Action also would have no indirect adverse impacts on archaeological resources.

4.10 LAND USE

Selection of the No-Action Alternatives would not result in direct, indirect, or cumulative adverse impacts on compatible land use in the vicinity of the Airport property because the existing land uses on the Airport property would not change. Relocation of Taxiway A and/or Taxiway B would result in the conversion of undeveloped land within the Airport property to transportation use, and construction of the Southside Basing Area would require the acquisition of adjacent light industrial

[27] *Ibid.*
[28] *Ibid.*

parcels and their conversion to transportation use. These land use changes would not be considered adverse because the new uses would remain compatible with the current and future land use plans of Cobb County (see **Chapter 3, Exhibits B and C**).

Implementation of the Proposed Action would not result in indirect impacts on land use because there are no future planned projects associated with any of the three elements of the Proposed Action.

4.11 NATURAL RESOURCES AND ENERGY SUPPLY

In accordance with FAA guidelines, the EA must evaluate potential changes in energy requirements and the use of consumable natural resources at the Airport for the 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.

Selection of the No-Action alternatives would not result in any changes to the existing condition of the Airport property. Therefore, there would be no direct, indirect, or cumulative impacts related to natural resources and/or the local energy supply.

Energy supply requirements associated with the Proposed Action would be associated with energy demand from additional lighting on the relocated taxiways. The amount of additional lighting would be anticipated to be minimal with the Sponsor-preferred alternatives, and it would not be expected to exceed available local or regional supplies or capacities.

The demand for additional petroleum-based fuels and paving materials needed for construction and operation of the Proposed Action also would not represent a significant increase in demand when compared to the No-Action alternatives. No indirect or cumulative impacts on natural resources or energy supplies would be associated within the Proposed Action because there are no future planned projects associated with any of the three elements that comprise the Proposed Action.

4.12 NOISE AND NOISE-COMPATIBLE LAND USE

4.12.1 Introduction

Noise is defined as "... a sound that lacks agreeable musical quality or is noticeable unpleasant."[29] The FAA has a national policy that airports be constructed and operated to minimize current and future noise impacts on surrounding communities.[30]

4.12.2 Construction Noise Impacts

The extent of noise from construction activity is defined as the limit where noise from construction equipment is indistinguishable from noise or sound generated by the baseline conditions, either

[29] Merriam-Webster Online Dictionary (2019). Accessed on March 28, 2019 at: *https://www.merriam-webster.com/dictionary/noise*.

[30] 14 CFR Part 150.

background (such as roadway traffic or ambient conditions, whichever is loudest).[31] Selection of the No-Action alternatives would not result in any changes to the existing condition of the Airport property or adjacent parcels; therefore, no construction-related noise would be generated with selection of these alternatives. There are no noise sensitive receptors in the vicinity of any elements of the Proposed Action, because the area consists of commercial and industrial land uses that are compatible with the Airport. The area is also highly developed, and the ambient noise levels caused by surface and air traffic are high enough that any noise generated as a result of construction activities for the Proposed Action would not result in impacts to properties in the area.

4.12.3 Airside Noise Impacts

Selection of the No-Action alternatives would not result in any changes to the existing conditions of the Airport; therefore, air traffic generated noise levels would not change as a result of selection of this alternative. Implementation of any or all elements of the Proposed Action would result in a change in the noise environment as the trend in aircraft usage moves from a C-II facility to a D-III facility. As the types of aircraft arriving and departing from RYY changes over time, so do the Day-Night Average Sound Levels (DNL) in the vicinity of the Airport.

DNL is a 24-hour logarithmic average sound level expressed in decibels on the A-weighted scale, which is a scale that simulates the human perception of sound. An annual average of DNL is used by the FAA to describe exposure to airport noise. Nighttime operations (between 10:00 PM and 7:00 AM) are attributed a 10-decibel penalty (two times as loud) within the DNL calculation. The cumulative noise exposure levels at various reference points are then plotted to create noise exposure contours. These noise contours are then used to determine areas in the vicinity of the Airport that are adversely affected by noise generated by aircraft operating at the facility. The FAA establishes guidelines for evaluating various land uses inside airport noise contours. Various noise-producing activities are keyed to DNL values (**Exhibit E**).

These guidelines reflect statistical variability of the large groups of people to noise exposure, and a specific noise level may not accurately assess one individual's perception of a noise generator. All land uses are considered compatible with noise levels less than 65 DNL (**Table 4.11**). Areas of residential development, mobile homes, or transient housing are considered impacted if they are located within the 65 DNL contour.

Other noise sensitive land uses such as hospitals, nursing homes, and churches area also considered impacted if they are located within the 65 DNL contour. Land uses that are less sensitive to noise levels, such as commercial businesses. are considered to be compatible within the 70 and 75 DNL contours.

The compatible land use map provided in the *2017 Master Plan Update* shows the 65 DNL, 70 DNL, and 75 DNL noise contours for the Airport serving a D-III category facility fleet mix (**Exhibit F**). The runway extension to the east is not a programmed project for the Airport within the 3-year planning period of this EA. Nevertheless, the 65 DNL contour would not extend onto any residential properties or other land use types that would not be considered compatible with the noise levels produced by the Airport.

[31] Washington State Department of Transportation (2015). *Biological Assessment Preparation, Advanced Training Manual, Version 02-2015*. Chapter 7.0 – *Construction Noise Assessment*.

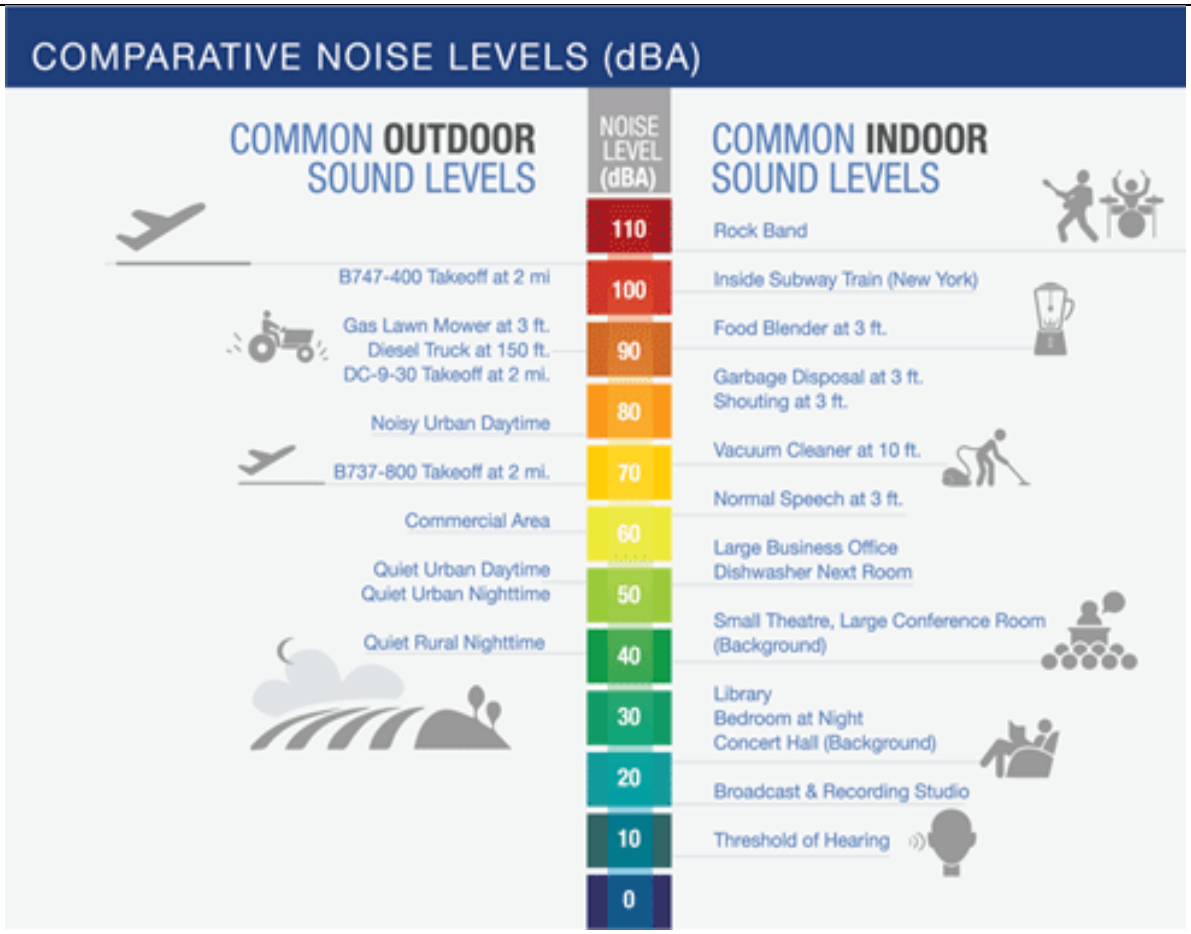


Exhibit E
Comparative Noise Levels (dBA)

Source: FAA (2018), Fundamentals of Noise and Sound, at: *https://www.faa.gov/regulations_policies/policy_guidance/noise/basics/*.

Table 4.11
FAA Land Use Compatibility Guidelines

Land Use Type	Yearly Day-Night Average Sound Level (DNL) in A-weighted decibels					
Residential Use	**Below 65**	**65-70**	**70-75**	**75-80**	**80-85**	**Over 85**
Residential, other than mobile homes and transient lodgings	Y	N(1)	N(1)	N	N	N
Mobile home parks	Y	N	N	N	N	N
Transient lodgings	Y	N(1)	N(1)	N(1)	N	N
Public Use	**Below 65**	**65-70**	**70-75**	**75-80**	**80-85**	**Over 85**
Schools	Y	N(1)	N(1)	N	N	N
Hospitals and nursing homes	Y	25	30	N	N	N
Churches; auditoriums; concert halls	Y	25	30	N	N	N
Governmental services	Y	Y	25	30	N	N
Transportation	Y	Y	Y(2)	Y(3)	Y(4)	Y(4)
Parking	Y	Y	Y(2)	Y(3)	Y(4)	N

Table 4.11 (continued)

Land Use Type	Yearly Day-Night Average Sound Level (DNL), A-weighted decibels					
Commercial Use	**Below 65**	**65-70**	**70-75**	**75-80**	**80-85**	**Over 85**
Offices, business and professional	Y	Y	25	30	N	N
Wholesale and retail	Y	Y	Y(2)	Y(3)	Y(4)	N
Retail trade	Y	Y	25	30	N	N
Utilities	Y	Y	Y(2)	Y(3)	Y(4)	N
Communications	Y	Y	25	30	N	N
Manufacturing & Production Use	**Below 65**	**65-70**	**70-75**	**75-80**	**80-85**	**Over 85**
Manufacturing	Y	Y	Y(2)	Y(3)	Y(4)	N
Photographic and optical	Y	Y	25	30	N	N
Agriculture	Y	Y(6)	Y(7)	Y(8)	Y(8)	Y(8)
Livestock farming and breeding	Y	Y(6)	Y(7)	N	N	N
Mining and fishing	Y	Y	Y	Y	Y	Y
Recreational Use	**Below 65**	**65-70**	**70-75**	**75-80**	**80-85**	**Over 85**
Outdoor sports	Y	Y(5)	Y(5)	N	N	N
Outdoor music amphitheaters	Y	N	N	N	N	N
Nature exhibits and zoos	Y	Y	N	N	N	N
Amusement parks; resorts, and camps	Y	Y	Y	N	N	N
Golf courses, riding stables, and water recreation	Y	Y	25	30	N	N

Source: 14 CFR Part 150. Appendix A, Table 1.

***Key*:**

Y = Land use and related structure are compatible without restrictions.

N = Land use and related structures are not compatible and should be prohibited.

25 or 30 = Land use and related structures are generally compatible; measures to achieve a noise level reduction of 25 or 30 dBA must be incorporated in the design and construction of the structure.

Notes:

(1) In circumstances where the residential or school use must be allowed, measures to achieve outdoor to indoor noise level reduction of at least 25 dBA and 30 dBA should be incorporated into the building codes.

(2) Measures to achieve noise level reduction of 25 dBA must be incorporated into the design and construction of the portions of the buildings where the public is received, office areas, noise sensitive areas, or where normal noise levels are low.

(3) Measures to achieve noise level reduction of 30 dBA must be incorporated into the design and construction of the portions of the buildings where the public is received, office areas, noise sensitive areas, or where normal noise levels are low.

(4) Measures to achieve noise level reduction of 35 dBA must be incorporated into the design and construction of the portions of the buildings where the public is received, office areas, noise sensitive areas, or where normal noise levels are low.

(5) Land use is compatible provided that special sound reinforcement systems are installed.

(6) Residential buildings require noise level reduction of 25 dBA.

(7) Residential buildings require noise level reduction of 30 dBA.

(8) Residential buildings are not permitted.

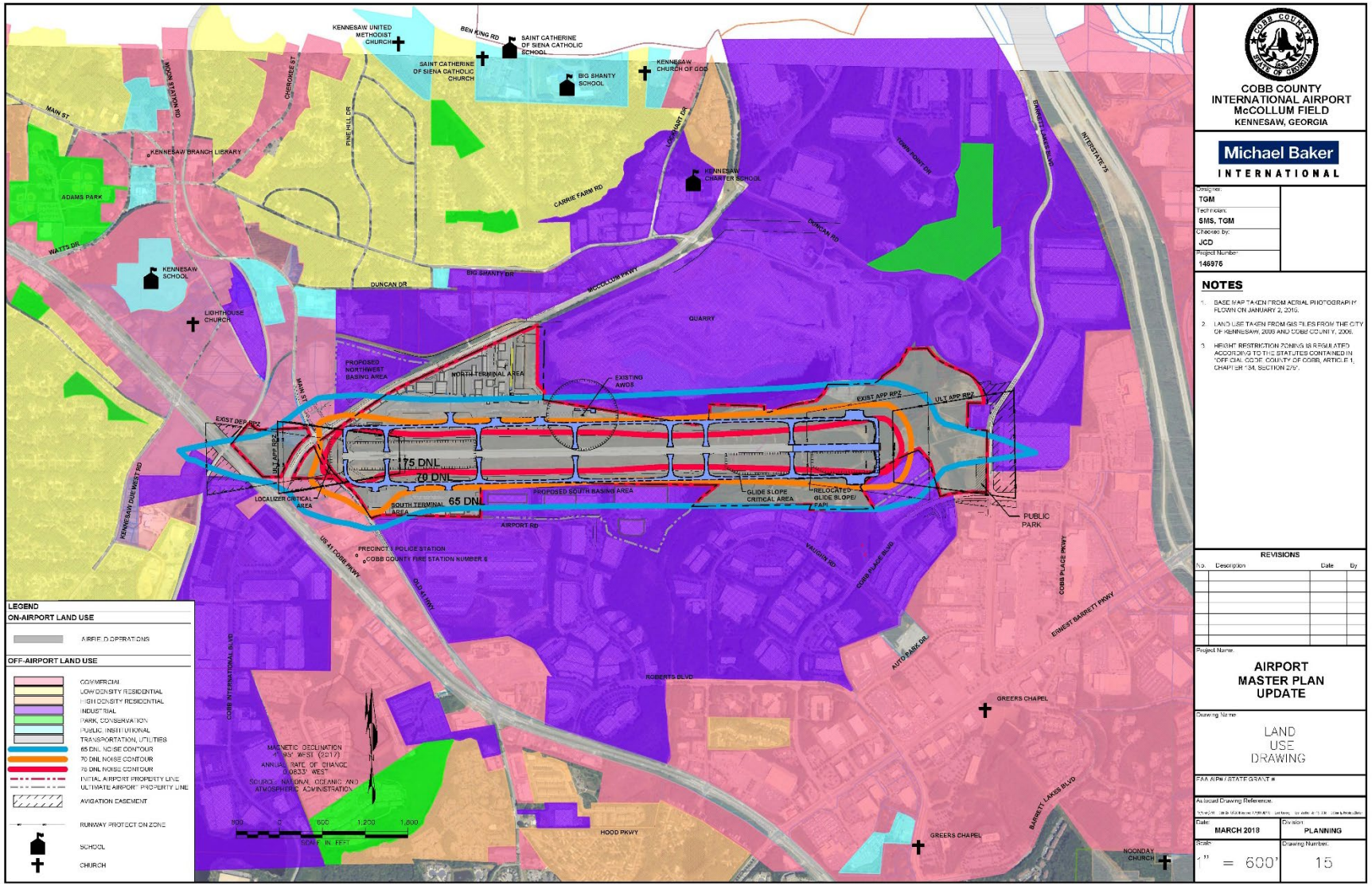


Exhibit F
Noise-Compatible Land Use

The 70 DNL contour does extend over commercial land use properties located adjacent to the western boundary of the Airport property; however, the 75 DNL contour does not encroach upon any commercial land use properties. As a result, noise mitigation measures would not be required for the existing structures located on these parcels as the Airport moves towards becoming a category D-III facility. The 75 DNL contour extends to the edge of a distribution facility located within an industrial use property located near the eastern boundary of the Airport property. Large diesel powered trucks are frequently arriving and departing the facility; therefore, the ambient noise levels at the facilities can be estimated to exceed 75 dBA. As a result, it is anticipated that noise reduction measures would not be required at this location.

4.13 SOCIOECONOMIC IMPACTS, ENVIRONMENTAL JUSTICE, AND CHILDREN'S ENVIRONMENTAL HEALTH AND SAFETY RISKS

Selection of the No-Action Alternatives would not involve any residential or business relocations, changes in transportation patterns, disruption to planned/established communities or developments, or changes in employment. Selection of the No-Action Alternatives also would not result in any direct impacts to minority or low-income communities in the area because there would be no construction or land acquisition associated with that alternative, and thus no relocations would be required. Furthermore, selection of the No-Action Alternatives would not result in an increase of risk to the health and safety of children, as there would be no change to the current configuration or condition of the Airport facility.

Implementation of the Southside Basing Area element of the Proposed Action would result in socioeconomic impacts associated with the acquisition of four warehouse buildings located along Airport Road. The two westernmost warehouses are currently occupied by existing businesses (SkyZone and MicroBilt Corporation), while the two easternmost warehouses are currently vacant. All property acquisitions would be conducted in accordance with Georgia law, and fair compensation would be offered to each of the business owners affected by the Proposed Action.

Implementation of the Proposed Action would also result in indirect socioeconomic impacts, as the relocation of McCollum Parkway and Old Highway 41 / South Main Street (by others) would require the relocation of businesses that are located on the parcels needed to relocate these surface transportation facilities.

It is anticipated that implementation of the Proposed Action would not result in cumulative socioeconomic impacts on business relocations in the vicinity of the Airport. The relocation of McCollum Parkway and Old Highway 41 / South Main Street (by others) would result in cumulative impacts on the businesses that currently occupy the parcels needed to relocate these surface transportation facilities. All businesses affected by the roadway relocation project would be offered fair compensation in accordance with Georgia law.

A future Northwest Basing Area project (planned to be implemented by others) would be located on a parcel that was formerly occupied by the Georgia Army National Guard but is currently vacant. A future planned Firefighting Station project would be constructed on the existing Airport property and would not require relocations. A future planned Runway 27 extension project also would not require the relocation of any businesses, because the extension and its associated improvements would be constructed on existing Airport property.

Implementation of the Proposed Action would not result in disproportionate impacts on minority or low-income populations, because no residential communities or properties would be adversely

affected by any of the three elements of the Proposed Action. In addition, implementation of the Proposed Action would not result in changes in flight patterns or an increase in operations that could result in noise impacts on local communities, because there are no residential communities located within the future condition 65 DNL contour (see **Exhibit F**).

There is one school located in the vicinity of the project study area (**Figure 4.6**). The Creekstone Academy is a day care center for pre-school children. The facility is located at 2400 Ellison Lakes Drive, which is approximately 0.33 mile southwest of the western Airport property boundary.

Implementation of any or all elements that comprise the Proposed Action would not result in adverse impacts to this facility, because it is located outside the project limits of each of these Proposed Action elements, and it is outside of the future condition 65 DNL contour. In addition, there would be no increase in risk to the children at this facility, because implementation of the Proposed Action elements would not result in an alteration of flight patterns that would send additional arriving or departing flights over that facility.

Aviation Park, which is located at the easternmost boundary of the Airport property, is currently open to the public and is used regularly by local residents, including families with children. Implementation of the Proposed Action elements would not result in an increased risk to children visiting Aviation Park, because no element of the Proposed Action would result in changes at the park or changes to its usage when compared to the No-Action Alternative.

4.14 VISUAL IMPACTS

In accordance with the FAA *Airport Environmental Handbook*, the sponsor of an airport development project shall "... consider the extent to which any lighting associated with an airport action will create an annoyance among people in the vicinity of the installation." It is also prudent to consider whether lighting associated with a proposed project might confuse or interfere with the vision of air traffic controllers directing aircraft in the vicinity of the airport, or with the vision of pilots on approach to an airport runway.

FAA Order 1050.1F also states that consideration should be given to impacts on Section 303 lands of the DOT Act Section 4(f) lands. Light-sensitive areas in the vicinity of an airport could include historic properties, parks, recreational areas, or residential communities. This environmental category considers the extent to which lighting associated with the Proposed Action might create an annoyance among people near the airport or lighting installation. Visual, or aesthetic, effects represent the "... extent to which airport development contrasts with the existing environment, architecture, historic or cultural setting, or land use planning."[32]

The Airport property is surrounded by developed lands consisting of commercial and industrial land use. The existing lighting on the property includes taxiway and runway lighting, building exterior safety lights, parking lot lights, and landscape lighting. Airports use low-, medium-, or high- intensity lights to illuminate their runways, taxiways, and gate areas, as well as to supply the visual approach navigational aids that are critical to the safe operation of aircraft at the Airport. This section assesses the impact of airport-related light emissions and the potential visual effects the various airport lighting systems may have on historic properties, recreation areas, residential communities, or other visually sensitive areas.

[32] FAA (2015) *1050.1F Desk Reference*. July 2015.

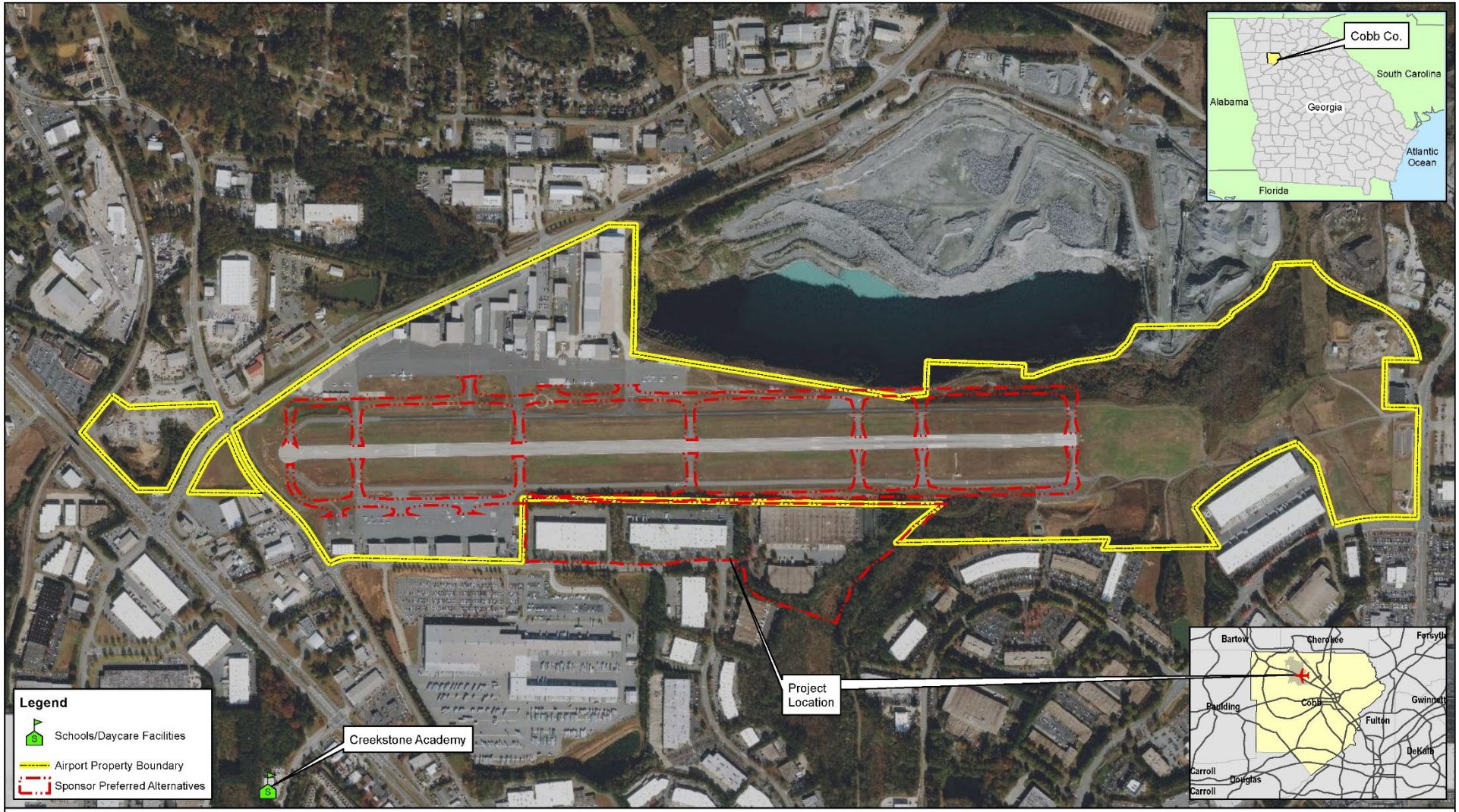


Figure 4.6: Nearby Schools or Day Care Facilities
(Aerial Photograph)

Selection of the No-Action Alternatives would not involve the installation of any additional light systems at the Airport. Therefore, selection of these alternatives would not result in any additional light emissions or visual impacts to the surrounding environment. Selection of the No-Action Alternatives also would not result in any indirect or cumulative impacts related to light emissions or visual impacts.

Potential light emission and visual effects associated with the three elements comprising the Proposed Action were evaluated to determine whether there is a potential for adverse impacts on people in the vicinity, from interference with their normal activities (e.g., the locations or characteristics of proposed lights or lighting systems) or from a disturbance of nearby visually sensitive areas. Implementation of the Proposed Action elements would not result in visual impacts to residential properties, because there are no residential properties located in the vicinity of the Airport property. There also are no historic properties with a visually sensitive viewshed located in the vicinity of any of the three elements of the Proposed Action.

Implementation of the Proposed Action elements would not result in direct or cumulative adverse visual impacts on the local community. Implementation of the Proposed Action also would not result in indirect adverse visual impacts on the local community, because there are no future planned projects associated with any of the three elements of the Proposed Action.

4.15 WATER RESOURCES

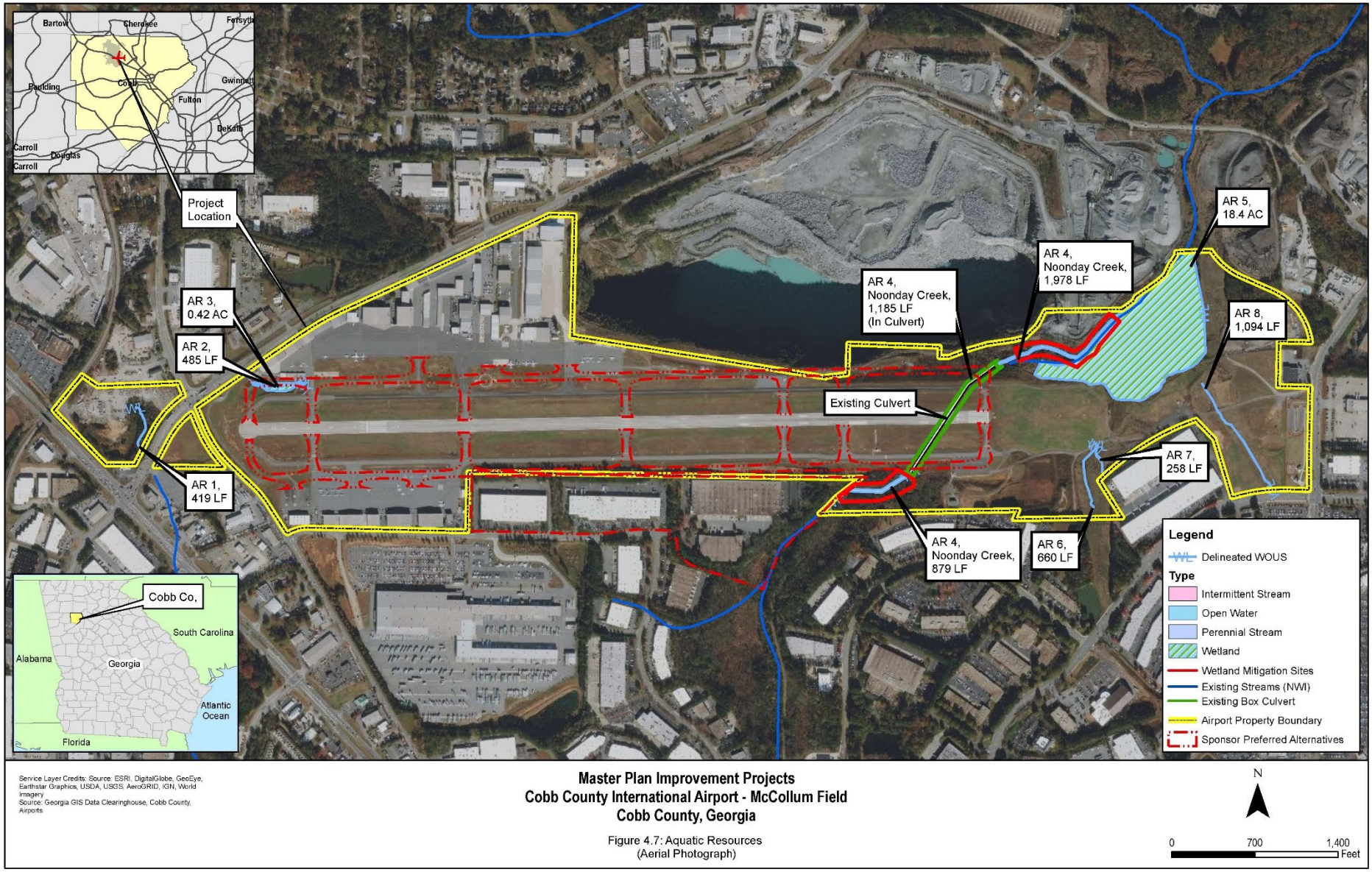
4.15.1 Survey Methodology

USGS quadrangle maps, county soil survey maps, USFWS National Wetlands Inventory (NWI) maps, and aerial photographs of the project study area were reviewed prior to the Aquatic Resource reconnaissance. The project study area encompassed the Airport property and adjacent parcels that were included in the project at the time of the field investigations. Field investigations were conducted on December 17, 2018 to ground-truth the information gathered during the preliminary research. Wetlands were identified in the field on the basis of soils, hydrology, and vegetation (USACE 1987). Resource locations and habitat descriptions were recorded, and that information was later utilized to determine the extent of resources within the project study area (**Figure 4.7**).

4.15.2 Description of Aquatic Resources

Aquatic Resource 1 (AR 1) – This resource has the characteristics of a perennial stream; it is located at the westernmost portion of the Airport property. Approximately 419 lf of AR 1 are located within the project study area. An Ordinary High Water Mark (OHWM) was observed within the channel. The stream had a bankfull width of approximately 4 feet and a bankfull depth of approximately 3 feet, with moderate entrenchment and high sinuosity. The substrate consisted of sand, gravel, and cobble. At the time of the survey the stream had a wetted width of approximately 2 feet and a wetted depth ranging from 1 to 12 inches, with a moderate flow condition and low turbidity. According to the USACE Definition of Factors, the stream is considered to be "somewhat impaired" due to a low biodiversity index.

Aquatic Resource 2 (AR 2) – This resource has the characteristics of a perennial stream; it is located just north of the Runway 9 End, within the Airport property. AR 2 flows from west to east and through Aquatic Resource 3 (described below). Approximately 485 lf of this stream are located within the project study area. An OHWM was observed within the channel. The stream had a bankfull width of approximately 3 feet and a bankfull depth of approximately 6 inches, with moderate entrenchment and moderate sinuosity.


Bartow
Cherokee
Forsyth
Paulding
Cobb
Gwinnett
Fulton
DeKalb
Carroll
Douglas
Carroll
Project Location
AR 3, 0.42 AC
AR 2, 485 LF
AR 1, 419 LF
AR 4, Noonday Creek, 1,185 LF (In Culvert)
AR 4, Noonday Creek, 1,978 LF
AR 5, 18.4 AC
AR 8, 1,094 LF
Existing Culvert
AR 7, 258 LF
AR 6, 660 LF
AR 4, Noonday Creek, 879 LF
Cobb Co,
South Carolina
Alabama
Georgia
Atlantic Ocean
Florida
Legend
Delineated WOUS
Type
Intermittent Stream
Open Water
Perennial Stream
Wetland
Wetland Mitigation Sites
Existing Streams (NWI)
Existing Box Culvert
Airport Property Boundary
Sponsor Preferred Alternatives
Service Layer Credits: Source: ESRI, DigitalGlobe, GeoEye, Earthstar Graphics, USDA, USGS, AeroGRID, IGN, World Imagery
Source: Georgia GIS Data Clearinghouse, Cobb County, Airports
Master Plan Improvement Projects
Cobb County International Airport - McCollum Field
Cobb County, Georgia
Figure 4.7: Aquatic Resources
(Aerial Photograph)
N
0
700
1,400
Feet

The substrate consisted of sand and silt. At the time of the survey the stream had a wetted width of approximately 2 feet and a wetted depth ranging from 1 to 4 inches., with a moderate flow condition and low turbidity. According to the USACE Definition of Factors, the stream is considered to be "somewhat impaired" due to a low biodiversity index.

Aquatic Resource 3 (AR 3) – This resource has the characteristics of a depressional emergent wetland; it is located just north of the Runway 9 End and is approximately 0.42 acre in size. Vegetation observed within the wetland included black willow, tree-of-heaven, multiflora rose (*Rosa multiflora*), Chinese privet, bladder sedge (*Carex intumescens*), cattail (*Typha latifolia*), common rush (*Juncus effusus*), boneset (*Eupatorium perfoliatum*), Japanese honeysuckle, and cat greenbrier. Primary hydrologic indicators observed included surface water, high water table, saturation, and iron deposits. Secondary hydrologic indicators observed included drainage patterns and geomorphic position. The primary hydric soil indicator observed was a depleted matrix.

Aquatic Resource 4 (AR 4) / Noonday Creek – This resource has the characteristics of a perennial stream; it flows from southwest to northeast through the Airport property and is conveyed beneath the airfield within a 1,185-lf box culvert. Within the project study area the northeastern reach is free flowing for 1,978 lf downstream of the culvert, and the southwestern reach is free-flowing for 879 lf upstream of the culvert, each of which includes a mitigation site (see **Appendix B**).

The 1,978-lf downstream reach had an average bankfull width of 32.5 feet (ranging from 20 to 45 feet) and a bankfull depth ranging from 4 to 8 feet; at the time of the survey this stream reach had an average wetted width of 22 feet and a wetted depth ranging from 1 to 5 feet, with a moderate flow condition and low turbidity. The 879-lf upstream reach had an average bankfull width of 12 feet and a bankfull depth of approximately 5 feet; at the time of the survey this stream reach had an average wetted width of 10 feet and a wetted depth ranging from 1 to 5 feet, also with a moderate flow condition and low turbidity. The stream reaches had moderate entrenchment and high sinuosity, with substrates of sand, gravel, and cobble both upstream and downstream of the box culvert.

The free-flowing segments of this resource have an OHWM within the channel, and both segments are considered suitable habitat for the federally threatened Cherokee darter. According to the USACE Definition of Factors, the stream is considered to be "fully functional" due to a high biodiversity index and low entrenchment.

Aquatic Resource 5 (AR 5) – This resource has the characteristics of a palustrine forested wetland; it is located adjacent to the downstream reach of AR 4. Approximately 18.4 acres of this resource are located within the project study area. At the time of the field survey the wetland was inundated due to the presence of beaver dams along AR 4. Vegetation observed within the wetland included water oak, red maple, sweetgum, loblolly pine, black willow, tag alder, buttonbush, Chinese privet, common rush, woolgrass, giant cane (*Arundinaria gigantea*), poison ivy, cat greenbrier, and Japanese honeysuckle. Primary hydrologic indicators observed included the presence of surface water, high water table, saturation, and the presence of reduced iron. Secondary hydrologic indicators observed included drainage patterns, saturation visible on aerial imagery, and geomorphic position. The primary hydric soil indicator observed was a depleted matrix.

Aquatic Resource 6 (AR 6) – AR 6 has the characteristics of a perennial stream; it is located southeast of the Runway 27 End, and it flows from south to north through approximately 660 lf of the project study area. An OHWM was observed within the channel. The stream had a bankfull width of approximately 4 feet and a bankfull depth ranging from 3 to 4 feet, with low entrenchment and moderate sinuosity. The substrate was clay. At the time of the survey the stream had a wetted

width of approximately 3 feet and a wetted depth of approximately 1 foot, with a moderate flow condition and low turbidity. According to the USACE Definition of Factors, AR 6 is considered to be "somewhat impaired" due to a low biodiversity index.

Aquatic Resource 7 (AR 7) – AR 7 has the characteristics of a perennial stream; it is located east of AR 6, and it flows from south to north through approximately 258 lf of the project study area. An OHWM was observed within the channel. The stream had a bankfull width of approximately 4 feet and a bankfull depth of approximately 3.5 feet, with strong continuity of bed and bank and moderate sinuosity. The substrate was clay. At the time of the survey, the stream had a wetted width of approximately 1 foot, a wetted depth of approximately 2 inches, moderate flow, and low turbidity. According to the USACE Definition of Factors, AR 7 is considered to be "somewhat impaired" due to a low biodiversity index.

Aquatic Resource 8 (AR 8) – AR 8 has the characteristics of an intermittent stream; it is located southeast of the eastern boundary of AR 5. Approximately 1,095 lf of AR 8 are located within the project study area. The stream had a bankfull width of approximately 3 feet and a bankfull depth of approximately 2 feet, with high entrenchment and low sinuosity. The substrate was gravel and sand. At the time of the survey, the stream had a wetted width of approximately 2 feet, a wetted depth of 3 to 6 inches, moderate flow, and low turbidity. According to the USACE Definition of Factors, AR 8 is considered to be "somewhat impaired" due to a low biodiversity index.

4.15.3 Impacts to Aquatic Resources

For the three projects comprising the Proposed Action, selection of the No-Action alternatives would result in no impacts to wetlands or surface waters. With no construction activities taking place there would be no dredging or filling within the boundaries of any wetlands or other aquatic resources. Also, selection of the three No-Action alternatives would result in no changes to the existing conditions at the Airport, and no indirect or cumulative impacts on aquatic resources.

There are no open waters located within the project study area (**Table 4.12**). Grading for Alternative 1b, the Sponsor-Preferred Alternative for the Taxiway 'A' relocation, would impact approximately 485 lf of AR 2 and 0.42 acre of AR 3 to accommodate the relocated taxiway and its TOFA. Grading for Alternative 1b would also impact approximately 127 lf of AR 4 downstream (north) of the existing box culvert, where the culvert would be extended by 102 feet. Grading for the culvert extension would not encroach within the deed restricted area that is located approximately 280 feet downstream of the existing culvert outfall (see **Figure 4.7** and **Appendix B)**. There would be no impacts to AR 4 associated with grading for Alternative 2b, the Sponsor-Preferred Alternative for the Southside Basing Area, because the grading would avoid disturbance within the stream and its vegetated buffer. Construction of Alternative 3b, the Sponsor-Preferred Alternative for the Taxiway 'B' relocation, would impact approximately 101 lf of AR 4 upstream (south) of the existing box culvert where the culvert would be extended by approximately 76 feet. The grading would encroach within a deed restricted area if it is determined to be infeasible to construct a retaining wall to accommodate the relocated TOFA. Extinguishment of the deed restriction would require authorization by the USACE and additional compensatory mitigation.

Cumulative impacts to aquatic resources would result from past actions at the Airport and from the Proposed Action. The 2014 Taxiway 'A' and Taxiway 'B' Extension and West Apron Expansion Project impacted approximately 1,108 lf of AR-2.

Table 4.12
Direct Impacts to Aquatic Resources in the Project Study Area

Resource Label	Area (ac)	Impact (ac)	Length (lf)	Impact (lf)
AR 1	0	0	419	0
AR 2	0	0	485	485
AR 3	0.42	0.42	0	0
AR 4 (downstream of culvert)	0	0	1,978	127
AR 4 (within culvert)	0	0	1,185	0
AR 4 (upstream of culvert)	0	0	879	101
AR 5	18.4	0.0	0	0
AR 6	0	0	660	0
AR 7	0	0	258	0
AR 8	0	0	1,094	0
Totals	**18.82**	**0.42**	**6,958**	**713**

Abbreviations: AR = Aquatic Resource; ac = acre or acres; lf = linear feet.

The Sponsor-Preferred Alternative for the Taxiway 'A' relocation component of the Proposed Action would result in an additional 485 lf of impacts to AR 2. There are no other current projects at the Airport, and no reasonably foreseeable future projects are programmed within the 3-year planning period for this EA.

There are no other current projects and no reasonably foreseeable future actions programmed within the 3-year planning period for this EA that would affect this resource. Thus, there would be approximately 1,593 lf of cumulative permanent impacts to AR 2 associated with the 2014 project and the current Proposed Action.

At AR 3, the 2014 Taxiway 'A' and Taxiway 'B' Extension and West Apron Expansion project resulted in approximately 0.10 acre of filling impacts to this wetland. The Sponsor-Preferred Alternative for the Taxiway 'A' relocation element of the Proposed Action would impact the remaining 0.42 acre of AR 3. Thus, there would be approximately 0.52 acre of cumulative impacts to AR 3 associated with the 2014 project and the current Proposed Action.

At AR 4, the box culvert installation project completed in the year 2000 resulted in approximately 2,150 lf of permanent impacts to AR 4 (1,450 lf of stream relocation to accommodate the culvert and 700 lf of stream relocation within the free-flowing reach upstream of the culvert). Implementation of the Sponsor-Preferred Alternatives for the Taxiway 'A' and Taxiway 'B' relocation components of the Proposed Action (Alternatives 1b and 3b, respectively), would result in 228 lf of impacts to AR 4. Grading for the Southside Basing Area component of the Proposed Action would be designed to avoid impacts to AR 4 and its vegetated buffer, and further development of that site is not programmed within the 3-year planning period for this EA that would affect this resource. Thus, there would be approximately 2,150 lf of cumulative impacts to AR 4 associated with the original (year 2000) culvert installation and the current Proposed Action.

4.15.4 Section 404 Permit and 401 Certification

Total avoidance of aquatic resource impacts would not be possible with implementation of the Proposed Action because of: (1) the abundance and widespread distribution of aquatic resources and riparian areas within the proposed construction limits; (2) the need to avoid significant impacts on commercial and industrial businesses; and (3) limitations on the feasible locations for the proposed construction activities. Therefore, practicable measures to minimize impacts were utilized during the preliminary design phase of the project. Every consideration was given to developing a design that would reduce potential impacts to all aquatic resources to the greatest extent possible, as long as the project design would remain consistent with engineering standards and FAA safety requirements. Where possible, fill areas would be minimized by using 2:1 slopes in areas adjacent to aquatic resources and their vegetated buffers. The construction contract would require implementation of BMPs to minimize temporary impacts on water quality.[33] Control measures such as the installation and maintenance of hay bale barriers, silt fencing, and sedimentation basins, as well as the seeding of slopes in disturbed areas, would be required throughout construction until a permanent vegetative cover is established in any unpaved areas.

A CWA Section 404 permit is required for authorization of projects with unavoidable impacts to waters of the U.S. For impacts greater than 0.1 acre of wetlands/open waters or 100 linear feet of stream, compensatory mitigation is required. The approach preferred by regulatory agencies is for the project sponsor to purchase mitigation credits from one or more USACE-approved mitigation banks whose Primary Service Area includes the location of the proposed project. Onsite mitigation is not practicable for airport projects per FAA policy, because such areas can attract waterfowl and other wildlife that increase the potential for bird and other wildlife strikes with aircraft.[34] Based on the anticipated aquatic resource impacts associated with implementation of the proposed project, compensatory mitigation would be required. The impacts discussed in this EA are a conservative (worst-case) estimate of the potential impacts associated with project implementation, pending completion of the final engineering design. The USACE issued an aquatic resource delineation verification (ARDR) letter to the Airport on September 11, 2020 (see **Appendix B**).

With the aquatic resources verified by the USACE, a mitigation plan will be prepared based on the final design that involves the purchase of compensatory mitigation credits from a USACE-approved commercial mitigation bank prior to project implementation. At this time, the total compensatory mitigation for impacts to waters of the U.S. is estimated to require 4,715 grandfathered stream credits and 1.68 grandfathered wetland credits, for a total cost of $392,000. A USACE-approved mitigation bank having a Primary Service Area (PSA) or Secondary Service Area (SSA) that includes the Etowah River Watershed (HUC 03150104) would be utilized as the source for mitigation credits, based on credit availability. Based on the current information provided on the USACE's Regulatory In-Lieu Fee and Bank Information Tracking System (RIBITS) database, there are active USACE-approved commercial mitigation banks with sufficient credits available that list HUC 03150104 as occurring within their Primary Service Area (PSA).[35] **Table 4.13** provides a list of these banks, including the number and type of credits available at each bank.

[33] FAA AC 150/5370-10E, *Standards for Specifying Construction of Airports*.

[34] FAA AC 150/5200-33A, *Hazardous Wildlife Attractants on or Near Airports.*

[35] U.S. Army Corps of Engineers (2020). "Regulatory In-Lieu Fee and Bank Information Tracking System." Accessed on September 28, 2020 at: https://ribits.usace.army.mil.

Table 4.13
USACE-Approved Mitigation Banks that Include HUC 03150104 within the PSA

Bank Name	Stream Credits Available	Wetland Credits Available	Status
Cochran's Creek	17,194.63	0	Approved
Deerleap Preserve Conservation Bank	0	0	Approved
Etowah River Stream	0	0	Approved
Etowah River Preserve	515.09	0	Approved
Etowah River Road	0	86.07	Approved
Good Neighbor Creek	0.14	0	Approved

***Source*:** USACE (2020). Regulatory In-lieu Fee and Bank Information Tracking System. Accessed on September 28. 2020 at: https://ribits.usace.army.mil/ribits.

It is anticipated that the proposed project would be eligible for authorization under a CWA Section 404 Regional General Permit 34 (RGP 34). The USACE's Savannah District issues authorizations under this RGP, which applies to statewide transportation projects, because the impacts associated with the Sponsor-Preferred alternatives for the Proposed Action would be within the thresholds specified in the special conditions for that permit. The schedule for processing a General Permit application is typically 4 to 6 months.

All General Permits issued by the USACE are assumed to comply with the CWA Water Quality Certification (WQC) requirements. The CWA Section 404 Pre-Construction Notification to be submitted to the USACE will also be transmitted to the GADNR- EPD for its review, and with their concurrence and coordination with the USACE; a separate issuance of a WQC would not be required for this project.

4.15.5 Section 402 National Pollutant Discharge Elimination System

Section 402 of the Clean Water Act (CWA) prohibits the discharge of any pollutant into waters of the U.S. from a point source, unless the discharge is authorized by a National Pollutant Discharge Elimination System (NPDES) permit. A NPDES permit is also required for any construction activities that disturb greater than one acre of land. The GADNR-EPD, in compliance with NPDES regulations under the CWA, holds general permits authorizing discharges of stormwater for the following three categories of construction activities:

- Stand-alone construction activities (General Permit GAR100001),
- Infrastructure (i.e. linear) construction site (General Permit GAR100002), and
- Common development construction (General Permit GAR100003)

The Proposed Action would require authorization under Section 402 of the CWA. A Notice of Intent (NOI) would be required for use of the State's National Pollutant Discharge Elimination System (NPDES) General Permit No. GAR100002 (Construction Stormwater Discharges).

4.15.6 State and Local Permits and Certifications

GADNR-EPD Section 305(b)/303(d) Listing

The project study area is located within the Etowah River Watershed. Section 305(b) of the CWA requires each state to submit a biennial report to the EPA that describes water quality conditions across the state. Section 303(d) of the CWA requires every state to establish requirements for

pollutants in order to implement water quality standards, and to then identify water bodies that exceed these requirements. Georgia has adopted numeric standards for toxic limits, as required by the EPA in a 1987 amendment to the CWA. The GADNR-EPD *Rules and Regulations for Water Quality Control* (2001) established Water Use Classifications that include Drinking Water, Recreation, Fishing, Coastal Fishing, Wild Rivers, and Scenic Rivers.

The GADNR-EPD also has developed a priority list of waterbodies, pursuant to Section 303(d) of the CWA and codified in 40 CFR Part 130.7. Waterbodies that are targeted for water quality management action are listed on the State of Georgia 2020 Draft Integrated 305(b)/303(d) List. Listed streams appear on either the support list, which identifies streams that support their designated use classification, or they appear on the list as not supporting their designated use, which indicates that they are impaired to an extent that they no longer support their use classification. The 303(d) List identifies Georgia waterbodies that do not meet State water quality standards after the application of required controls for point- and nonpoint-source pollutants. It also prioritizes waterbodies to which the GADNR-EPD can direct its attention when developing required controls for waterbodies that do not support their designated use, as follows:

- **Priority 1** waters require actions to achieve water quality standards;
- **Priority 2** waterbodies have excess concentrations of metals from nonpoint sources and/or dissolved oxygen concentrations that do not meet water quality standards;
- **Priority 3** waterbodies are segments where urban runoff and other general nonpoint sources have resulted in water quality standards being violated for metals or for fecal coliform bacteria.

Noonday Creek is a tributary to the Little River and comprises the main drainage system for the Airport, which is located within the Coosa River Basin. Noonday Creek is listed on the GADNR-EPD 2018 Integrated 305(b)/303(d) List (approved by EPA August 5, 2020) as "not supporting" its designated use of fishing. Therefore, all tributaries within one mile and flowing into this reach of Noonday Creek are also considered impaired. The criterion violated is commercial fishing ban. The listed causes of the criteria violations include residual, an industrial source, and nonpoint sources. During construction of the Airport improvements, the contractor would be responsible for implementing at least four of the possible twenty listed BMPs to help reduce erosion, sedimentation, and the introduction of other pollutants into any water located in the vicinity of the impaired streams. The four BMP measures can be selected from the list provided in Part III. Section C.2 of GAR100002.[36]

Potential Water Quality Impacts

Selection of the No-Action Alternative would have no impacts on water quality, because no construction activities would take place at the Airport. Implementation of the Sponsor-Preferred Alternatives for the Proposed Action could potentially impact water quality because construction activities would result in approximately 731.8 lf of permanent stream impacts (see **Table 4.12**). There would be a potential for temporary impacts on water quality during clearing and grading activities. To minimize turbidity and sedimentation impacts, as well as potential pollution impacts from the use of construction equipment, the contractor would be required to implement BMPs, as described further below.

[36] State of Georgia (September 24, 2013). "Authorization to Discharge Under the National Pollutant Discharge Elimination System Storm Water Discharges Associated with Construction Activity for Infrastructure.

Implementation of the Proposed Action would be classified as an infrastructure project under Georgia's NPDES General Permit (GAR 100002); therefore, a NOI to disturb greater than one acre of land would be submitted to the GADNR-EPD prior to beginning land clearing/grading activities. Also, in accordance with NPDES regulations, an Erosion, Sedimentation, and Pollution Control Plan would be prepared and submitted in conjunction with the NOI. This plan would outline the BMPs to be implemented during construction to control erosion, sedimentation, and other potential pollutants from entering surface waters. Components of this plan would include the following:

- several temporary sedimentation basins would be constructed in upland areas around the construction site, designed to trap suspended sediment and provide a controlled release point for the treated stormwater from the construction site to onsite streams;
- silt fencing would be installed around the construction limits; and
- clearing and grading activities would be staged such that the entire site would not be disturbed at the same time, which would allow for seeding and stabilization of disturbed areas prior to carrying out additional clearing/grading actions.

Minimization of impacts would be achieved by implementing temporary and permanent erosion and sediment control devices in accordance with FAA Advisory Circular 150/5370-10E, entitled *Standards for Specifying Construction of Airports*.[37] Implementation of the three Sponsor-Preferred Alternatives for the Proposed Action would not require issuance of a separate CWA Section 401 Water Quality Certification (WQC) from the GADNR-EPD, because all projects authorized by the USACE under a CWA Section 404 General Permit in coordination with the GADNR-EPD are assumed to comply with the WQC standards, as discussed in **Section 4.15.4**.

Selection of the No-Action Alternative would not result in any indirect or cumulative water quality impacts because no construction activities would occur, and the existing conditions at the Airport would remain unchanged. Implementation of the Proposed Action would not be expected to result in indirect impacts to water quality because there are no future projects programmed for the Airport within the 3-year planning period of this EA.

Georgia Erosion and Sedimentation Control Act of 1975

The Georgia Erosion and Sedimentation Control Act of 1975 regulates a 25-foot vegetated buffer around waters of the State, including perennial streams, intermittent streams, and open waters that are connected to other waters of the State.[38] Projects that would impact a State-regulated buffer require a State Buffer Variance (SBV) from the GDNR-EPD. Impacts within 50 feet of an existing culvert footprint would be exempt from the buffer requirements.[39] Implementation of the Proposed Action is not anticipated to result in any non-exempt impacts to the 25-foot protected vegetative buffer of any State waters identified within the project study area. Therefore, a Request for 25-foot Vegetative Buffer Encroachment would not be required as part of the Proposed Action.

[37] Construction Projects." Part III. Special Conditions, Management Practices, Permit Violations, and Other Limitations

[38] *Official Code of Georgia Annotated* (*O.C.G.A.*) 12-7-6-(15).

[39] *Rules of the Georgia Department of Natural Resources - Environmental Protection Division, Chapter 391-3-7, Erosion and Sedimentation Control.*

4.15.7 Floodplains

Executive Order (E.O.) 11988, *Floodplain Management*, requires that efforts be made to avoid, to the extent possible, the long-term 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.

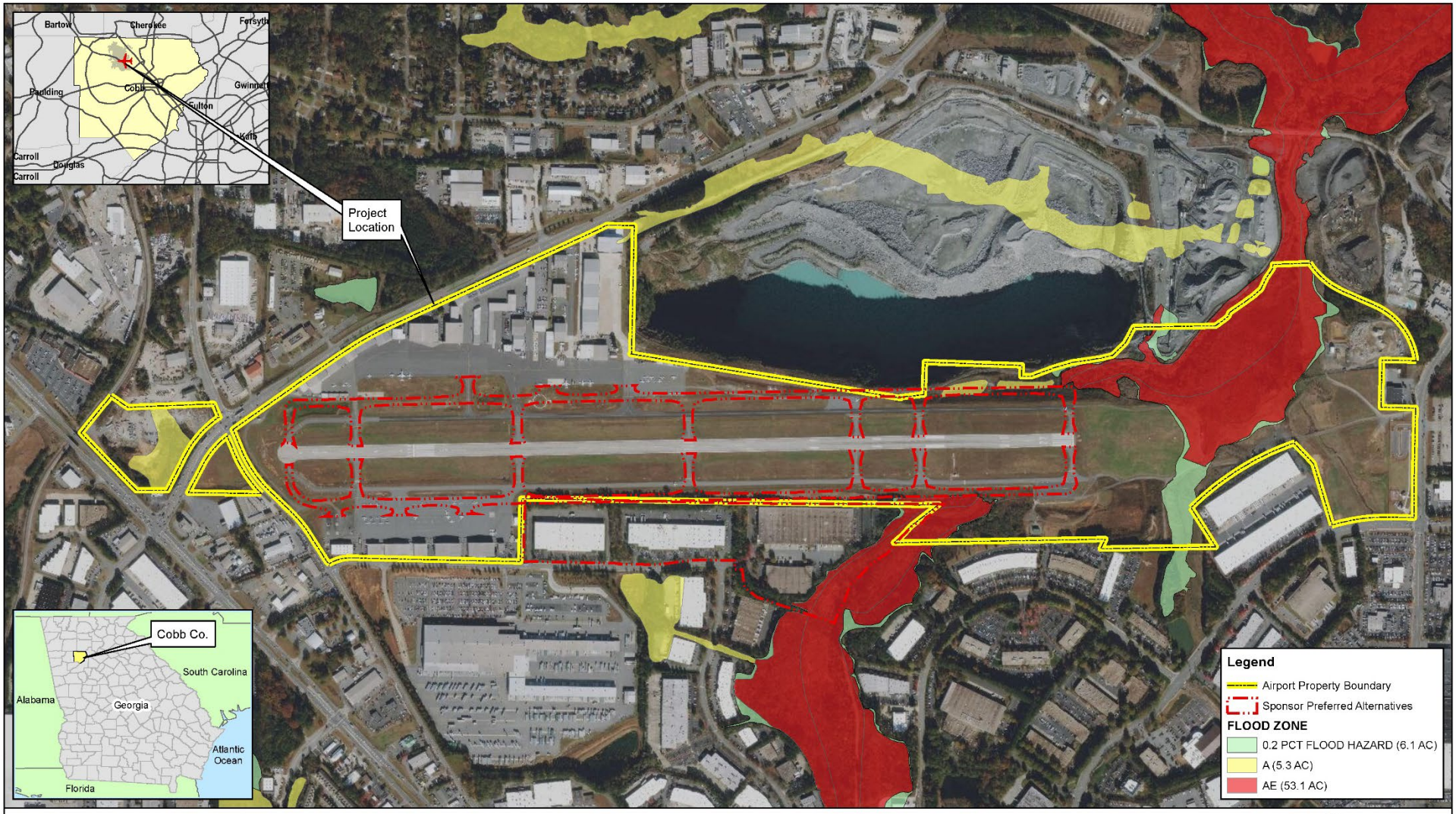
Development in a FEMA-designated 100-year floodplain (Flood Hazard floodplains) is permitted by federal regulations if hydrologic and hydraulic analyses demonstrate that the development would not result in an increase of more than one foot of the Base Flood Elevation (BFE). However, floodways must retain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

[NOTE: The BFE is the computed elevation to which floodwater is anticipated to rise during the base flood. The base flood is defined as having a one percent chance of being equaled or exceeded in any given year. This is the regulatory standard also referred to as the "100-year flood." The base flood is the national standard used by the National Flood Insurance Program (NFIP) and all Federal agencies for the purposes of requiring the purchase of flood insurance and regulating new development. BFEs are typically shown on Flood Insurance Rate Maps (FIRMs) and on the flood profiles.]

There would be no direct impacts to floodplains associated with the No-Action Alternative, because there would be no change in the current conditions at the Airport. Therefore, there would be no indirect or cumulative floodplain impacts associated with selection of this alternative. Based on a review of the Federal Emergency Management Agency (FEMA) floodplain elevations in the project study area, there are floodplains associated with AR 4 / Noonday Creek located within the areas of disturbance for the Proposed Action (**Figure 4.8)**.

Implementation of the Taxiway 'A' element of the Proposed Action would impact approximately 2.58 acres of regulated floodplains (0.21 acre of Flood Hazard Zone, 1.38 acres of Zone A, and 0.99 acre of Zone AE). Implementation of the Taxiway 'B' element of the Proposed Action would impact approximately 1.65 acres of regulated floodplains (0.18 acre of Flood Hazard Zone and 1.47 acres of Zone AE). The Southside Basing Area element of the Proposed Action would avoid impacts to Noonday Creek, its vegetated buffer, and regulated floodplains by utilizing best management practices for the building demolition and site work. The hydrologic studies and hydraulic analysis to be performed for the design of the Proposed Action would have to demonstrate that the impacts from the filling of the floodplain would not result in a rise of more than 1 foot of the 100-year floodplain elevation. If it is determined that the impacts would result in a rise of more than 1 foot in base floodplain elevation, a request for a Conditional Letter of Map Revision (CLOMR) would be requested from FEMA. Unlike the mitigation requirements for impacts to waters of the U.S. and to the buffers of State waters, there are no mitigation requirement for floodplain impacts.

Implementation of the Proposed Action would result in cumulative impacts to floodplains when considering past, present, and reasonably foreseeable actions at or adjacent to the Airport property. The year 2000 box culvert installation project resulted in approximately 0.01 acre of Flood Hazard Zone floodplains and approximately 0.06 acre of impacts to Zone AE floodplains. The cumulative impacts to floodplains would comprise 0.40 acre of Flood Hazard Zone floodplains, 2.52 acres of Zone AE floodplains, and 1.38 acres of Zone A floodplain impacts.



Service Layer Credits: Source: ESRI, DigitalGlobe, GeoEye, Earthstar Graphics, USDA, USGS, AeroGRID, IGN, World Imagery
Source: Georgia GIS Data Clearinghouse, Cobb County, Airports and Floodplains

Master Plan Improvement Projects
Cobb County International Airport - McCollum Field
Cobb County, Georgia

Figure 4.8: Floodplains
(Aerial Photograph)

4.15.8 Groundwater

The Safe Drinking Water Act (42 U.S.C. 300 (f)-300j-26) prohibits federal agencies from funding actions that would contaminate an EPA-designated sole source aquifer or its recharge area. The No-Action Alternative would have no effect on any aquifer or its recharge area because no construction would occur at the Airport. There are no aquifers located in the vicinity of the Airport property; therefore, implementation of the Proposed Action would have no direct, indirect, or cumulative impacts on aquifers or a groundwater recharge area.

4.15.9 Wild and Scenic Rivers

The National Wild and Scenic Rivers Act of 1968 (16 U.S.C. 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."[40] There are no federally protected wild, scenic, or recreational rivers, nor are there any rivers listed on the Nationwide River Inventory in the project study area.[41] The only river listed on the National Wild and Scenic River System within Georgia is the Chattooga River, which is located in the northeastern corner of the state.

The State of Georgia also designates some state rivers for their cultural or natural resources value under the Georgia Scenic Rivers Act of 1969.[42] The Georgia Scenic Rivers Act is administered by the GADNR-EPD. None of the rivers comprising the Georgia Scenic River Systems are located within the study area for the No-Action Alternative or the Proposed Action. There are no designated Wild and Scenic Rivers located in Cobb County. Therefore, no impacts to these resources would be anticipated in association with either the No-Action Alternative or the Proposed Action.

4.16 SUMMARY OF ENVIRONMENTAL IMPACTS

A comparative summary of the potential environmental impacts directly associated with the No-Action Alternatives and the Sponsor-Preferred Alternatives for the three elements that comprise the Proposed Action is presented in **Table 4.14.**

[40] U.S. National Park Service (2019). Wild and Scenic Rivers Program. Accessed on April 1, 2019 at: *https://www.nps.gov/orgs/1912/index.htm*.

[41] U.S. National Park Service (2019). Nationwide Rivers Inventory. Accessed on April 1, 2019 at: *https://www.nps.gov/subjects/rivers/nationwide-rivers-inventory.htm*.

[42] O.C.G.A §§ 12-5-350, Georgia Scenic Rivers Act.

Table 4.14
Summary of Potential Environmental Impacts

Environmental Category	No-Action Alternatives	Sponsor Preferred Alternatives
Air Quality	No Impacts	No Impacts
Biological Resources – T&E Species Habitat (Aquatic)	No Impacts	Minor Impacts
Biological Resources – T&E Species Habitat (Terrestrial)	No Impacts	Minor Impacts
Climate	No Impacts	No Impacts
Coastal Resources	No Impacts	No Impacts
Department of Transportation Act: Section 4(f)	No Impacts	No Impacts
Farmlands	No Impacts	No Impacts
Hazardous Materials, Solid Waste, and Pollution Prevention	No Impacts	No Impacts
Historical, Architectural, Archaeological, and Cultural Resources	No Impacts	No Impacts
Natural Resources and Energy Supply	No Impacts	No Impacts
Noise	No Impacts	No Impacts
Socioeconomic Impacts, Environmental Justice, and Children's Environmental Health and Safety Risks	No Impacts	Minor Impacts
Visual Effects	No Impacts	No Impacts
Water Resources	No Impacts	Impacts

CHAPTER 5. AGENCY COORDINATION AND PUBLIC INVOLVEMENT

5.1 AGENCY COORDINATION

The environmental evaluation process for the proposed improvements to the Cobb County International Airport – McCollum Field has included the use of data and information provided by various federal, state, regional, and local governmental bodies. The correspondence and other materials that were consulted during the environmental analysis are provided in **Appendix B**.

A list of the various agencies referenced during the environmental evaluation is provided below:

- Cobb County – Office of Community Development
- Georgia Department of Natural Resources – Environmental Protection Division
  - Air Quality Branch
  - Watershed Protection Branch
- Georgia Department of Natural Resources – Wildlife Resources Division
- Atlanta Regional Commission
- U.S. Army Corps of Engineers – Savannah District
- U.S. Department of Agriculture – Natural Resources Conservation Service
- Federal Emergency Management Agency
- U.S. Department of the Interior – National Park Service
- U.S. Environmental Protection Agency – Region 4
- U.S. Fish and Wildlife Service
- U.S. Geological Survey

5.2 NOTICE OF AVAILABILITY OF THE ENVIRONMENTAL ASSESSMENT

This EA for the proposed improvements at the Cobb County International Airport – McCollum Field has been in accordance with the provisions of NEPA, the Airports and Airway Safety, Capacity, Noise Improvement, and Intermodal Transportation Act of 1992, and FAA requirements. The environmental evaluation process for the proposed improvements has included the use of data and other information provided by various federal, state, regional, and local governmental bodies.

The Cobb County DOT advertised a Notice of Availability (NOA) in the *Marietta Daily Journal* (the general circulation newspaper of Cobb County) on April 10, 2020 (**Appendix F – Notice of Availability**). The NOA informed the public that the Draft EA would be available at the Airport Administration Office and posted on the Airport's website

(www.cobbcountyairport.org) for the 30-day public comment period. No comments were received.

An electronic copy of the Draft EA was transmitted on May 5, 2020 to government agencies that have a potential stake in the proposed improvements at the Airport. The USACE prefers to receive the information as part of the CWA Section 404 permitting process, and the GADNR-HPD coordinates directly with the GDOT - Aviation Programs for DOT Act Section 106 regulatory reviews. The agency representatives were requested to provide comments, if any, on the Draft EA within 30 days after the document was received. Two comments were received, which were addressed and included in the Final EA (**Appendix G – Agency Comments**).

CHAPTER 6. LIST OF DOCUMENT PREPARERS

6.1 MICHAEL BAKER INTERNATIONAL, INC.

Joseph Snyder, P.E.	Engineering Project Manager
Mary Best, Ph.D.	Environmental Manager
Paul Condit	Environmental Specialist II
James Duguay	Senior Aviation Planner
Cleo Coles, P.E.	Engineering Support
Renee Flinchum-Bowles	GIS Support

6.2 SUBCONSULTANTS

Brockington & Associates, Inc.	Cultural Resources Special Studies / Reports
Ecological Solutions, Inc.	Bat Habitat Assessment Survey / Report
Edwards-Pitman Environmental, Inc.	Protected Aquatic Species Survey / Report
Environmental Data Resources, Inc.	Hazardous Materials Database (Vendor)
KB Environmental Sciences, Inc.	Air Quality Assessment / Report