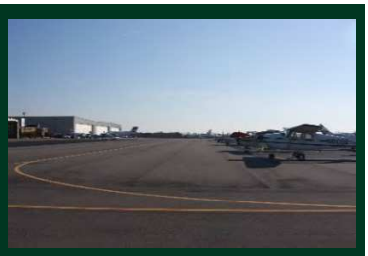




STATESVILLE REGIONAL AIRPORT

Runway 10-28 Safety Enhancements Program

RSA Improvements and Obstruction Removal

SUPPLEMENTAL ENVIRONMENTAL ASSESSMENT

JULY 2020

FINAL REPORT



DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION
FINDING OF NO SIGNIFICANT IMPACT (FONSI)
Runway 10-28 Safety Enhancements Program
Statesville Regional Airport
Statesville, NC

I. Introduction/Background

In accordance with the National Environmental Policy Act (NEPA), this Finding of No Significant Impact (FONSI) announces final agency determinations and approvals for those Federal Actions by the Federal Aviation Administration (FAA) that are necessary to support the proposed developments at the Statesville Regional Airport in Statesville, North Carolina.

This FONSI is based on information provided in the *Statesville Regional Airport, Runway 10-28 Safety Enhancements Program, Environmental Assessment, October 2017* and *Statesville Regional Airport, Runway 10-28 Safety Enhancements Program Supplemental Environmental Assessment, July 2020*. However, any reference to page or section numbers within this FONSI is specific to the Supplemental Environmental Assessment.

II. Proposed Federal Action

The airport sponsor has requested FAA funding assistance for a proposed action with the following components:

- Grade the Runway Safety Area (RSA), which is 500 feet in width and 1,000 feet beyond the Runway 10 approach end.
- Grade and install a 200-foot wide and 450-foot long Engineered Materials Arresting System (EMAS) beyond the Runway 28 approach end.
- Remark the runway to remove displaced thresholds.
- Remove airspaces obstructions (trees) to each end of the runway.
- Obtain approximately 170 acres of property easements to allow for tree removal.
- Obtain approximately 20 acres of property in fee simple interest to control land use within the runway protection zones.
- Close a portion of Bethlehem Road to allow for RSA construction.
- Changes to instrument approach/departure procedures due to changes in runway thresholds.

III. Purpose and Need

The FAA has defined the purpose and need for implementing the proposed action as being necessary to enhance airport safety and to increase aircraft operational utility by increasing usable runway length.

IV. Alternatives

Federal guidelines concerning the environmental review process require that all reasonable and practicable alternatives that might accomplish the objectives of a

proposed project be identified and evaluated. Such an examination ensures that alternatives are not prematurely dismissed and may lead to consideration of alternatives that fulfill the project's purpose and need as well as enhance environmental quality or have a less detrimental effect. The alternatives listed below were evaluated for this Environmental Assessment (EA).

1. No Action Alternative
2. Alternative 1 – Use of another airport
3. Alternative 2a – Full length RSA beyond both runway ends
4. Alternative 2b – Extend Runway 10 with full RSA
5. Alternative 2c – Extend and add EMAS to Runway 10
6. Alternative 2d – Provide full RSA on Runway 10, add EMAS to Runway 28 (Preferred alternative)

The alternatives are described in more detail in Section 2.2 of the EA. Alternative 1 was eliminated from consideration because it failed to meet the purpose and need. Alternative 2d was selected ahead of Alternatives 2a, 2b, and 2c, because it satisfied the purpose and need, avoided impacts to airport operations, minimized impacts to human and natural resources, and was determined financially feasible.

V. Environmental Impacts

The EA analyzed all relevant environmental categories based on FAA Order 5050.4B, "*National Environmental Policy Act Implementing Instructions for Airport Projects*" (NEPA). Those resource categories that the Sponsor's preferred alternative has the potential to impact are discussed below. Any mitigation measures proposed are discussed in Section VI.

V A. Air Quality

The proposed action will result in temporary, increased emissions due to construction activity. However, based on relative comparisons to similar, but larger projects, the proposed action is not expected to result in significant increases compared to the no action alternative.

V B. Biological Resources

The proposed action will impact areas with trees and brush including various vegetative species. Limited impacts to common biotic species can be expected. Based on the EA, the action is not expected to impact federal or state-listed species.

V C. Farmland

The proposed action may impact up to approximately 100 acres of prime farmland or farmland of statewide importance. However, the impacts will not exceed the level of significance.

V D. Section 106 Resources

Based on a historic architecture survey, a barn located west of the airport and within the Area of Potential Effect (APE) was determined to be eligible for the National Register of Historic Places (NRHP) under Criteria A, B, and C. The proposed action has the potential to impact the barn due to tree removal, which could lead to viewshed effects. However, given the distance of the tree removal area to the proposed boundary of the eligible resource, along with a visual buffer of a public road between the resource and the tree removal area, the FAA and State Historic Preservation Office concurred the action would result in no adverse effect.

V E. Visual Impacts

The proposed action will result in changes to airfield lighting and tree removal (visual buffer). The changes to airfield lighting will relocate runway threshold lights and runway end identification lights closer to the outer boundaries of the airport. However, there will be a substantial distance between visual receptors and the lighting systems.

The tree removal will has the potential to impact the visual character of the properties surrounding the airport. However, based on the EA, selective tree removal will be used to limit effects. In addition, many properties within the project area already have areas clear of trees and other vegetation, and as such, the proposed action is not expected to significantly impact the visual landscape.

V F. Socioeconomics (Social Impacts/Transportation Patterns)

The proposed action includes the acquisition of fee simple property acquisition for three residential properties. The properties would be acquired in a manner that is consistent with the Uniform Relocation Act, and would provide residents with replacement housing. Based on the data in the EA, there is sufficient replacement housing within the project area.

The proposed action also includes the partial closure of Bethlehem Road. Under the proposed action, the road would be closed southwest of the airport near the Runway 10 approach end. A cul-de-sac would be constructed at the road terminus. Based on the EA, the road closure would not isolate residents or business. Nor does the road maintain a high traffic volume. Therefore, significant impacts are not expected.

V G. Environmental Justice

The proposed action may impact environmental justice populations due to property acquisition. Although these populations are present in the project area, the proposed action would not result in disproportionate impacts compared to non-environmental justice populations.

V H. Noise

The proposed action will increase the effective length of the runway which may alter aircraft stage lengths, power/flight settings, and fuel/cargo loads as well as

airport aircraft fleet mix. Noise modeling was completed to evaluate the potential impacts of the proposed action compared to the no action alternative. Based on the analysis, significance noise impacts are not anticipated.

V I. Water Resources

The proposed action is expected to impact 1.0 acre of wetlands and 673 linear feet of jurisdictional streams. As a result, U.S. Army Corps of Engineers Clean Water Act Section 404 permit and a State Section 401 water quality certification will be required.

V J. Cumulative Impacts

The proposed action was considered in conjunction with past actions, since 2009, and proposed actions, planned through 2024, to determine if cumulative effects may reach the level of significance for any of the environmental resource categories listed in FAA Order 1050.1F. Based on the information provided in the EA, the proposed action will not result in significant impacts when considered with the additional impacts from past and future actions.

VI. Environmental Mitigation

The Airport Sponsor shall be responsible for obtaining all necessary construction permits or certifications as described in Section VI A. below prior to initiating construction activities near or on the environmental resource requiring the permit. Project related permits, certifications, and other mitigation measures required for the proposed action are discussed below. It should be noted that best management practices (BMPs) are considered standard operating procedure and are not considered mitigation; therefore, they are not discussed in this section.

VI A. Permits and Certifications

The project will require the following permits or certifications:

1. U.S. Army Corps of Engineers 404 Permit
2. N.C. State Water Quality 401 Certification
3. N.C. NPDES Construction Stormwater Permit NCG010000
4. N.C. Phase II Stormwater Permit

VI B. Mitigation

Without proper mitigation, the proposed action may exceed the threshold of significance. Mitigation shall be completed for the following environmental categories:

The proposed action will use minimization and compensation to mitigate impacts to jurisdictional waters. The installation of a retaining wall will minimize the extent of impacts. Compensation will be used for impacts to the wetland and stream impacts. The proposed mitigation is to obtain stream and wetland credits within the Yadkin Basin at an estimated cost of $630,200.

VII. Public Involvement
The following agencies were consulted in the preparation of this EA:

- U.S. Federal Aviation Administration
- U.S. Environmental Protection Agency
- U.S. Army Corps of Engineers
- U.S. Department of the Interior/Fish and Wildlife Service
- N.C. Department of Administration, State Environmental Review Clearinghouse
- N.C. Department of Agriculture
- N.C. Department of Cultural Resources (State Historic Preservation Office)
- N.C. Department of Environment and Natural Resources
- N.C. Department of Public Safety
- N.C. Department of Transportation
- City of Statesville

A public notice was placed in Statesville Record & Landmark newspaper and the airport website announcing the availability of the Draft EA, the opportunity for comment, and the opportunity to attend in-person meeting on June 18, 2020, from 5:00 – 7:00 PM, or to request participation in a virtual meeting (teleconference and/or video conference). In addition, nine property owners that hold property within the propose property easement and acquisition area were directly notified to participate in the public meeting.

The public meeting was attended by 86 residents, who provided 32 written comments. The concerns raised by the attendees are specified in Section 4.2 of the EA. These comments generally consisted of concerns associated with storm water runoff from the airport, increased emergency response times due to partial closure of Bethlehem Road, loss of public road access if stormwater damaged singular road access due to partial closure of Bethlehem Road, insufficient traffic management systems (lack of turn lanes, signalization, etc) on remaining roadway access if Bethlehem road is closed, traffic congestion, and inadequate details on future roadway projects that may improve traffic accessibility.

The FAA also received phone calls from two parties concerning stormwater impacts to the Lakewood golf course, limited roadway accessibility due to partial closure of Bethlehem Road, insufficient traffic management systems on remaining roadway access if Bethlehem road is closed.

Sign-in sheets, the written comments, and responses to comments are provided in Appendix F of the EA.

No request was made for a virtual meeting.

VIII. Decision

After careful and thorough consideration of the facts contained herein, the undersigned finds that approval of the proposed development is consistent with existing national environmental policies and objectives as set forth in Section 101(a) of the National Environmental Policy Act of 1969 (NEPA) and that it will not significantly affect the quality of the human environment or otherwise include any condition requiring consultation pursuant to Section 102(2)(C) of NEPA.

Approved: TOMMY L DUPREE Digitally signed by TOMMY L DUPREE Date: 2020.07.10 12:14:00 -05'00' Date: _____

Tommy L. Dupree
Manager, MEM-ADO

TABLE OF CONTENTS

LIST OF EXHIBITS

LIST OF TABLES

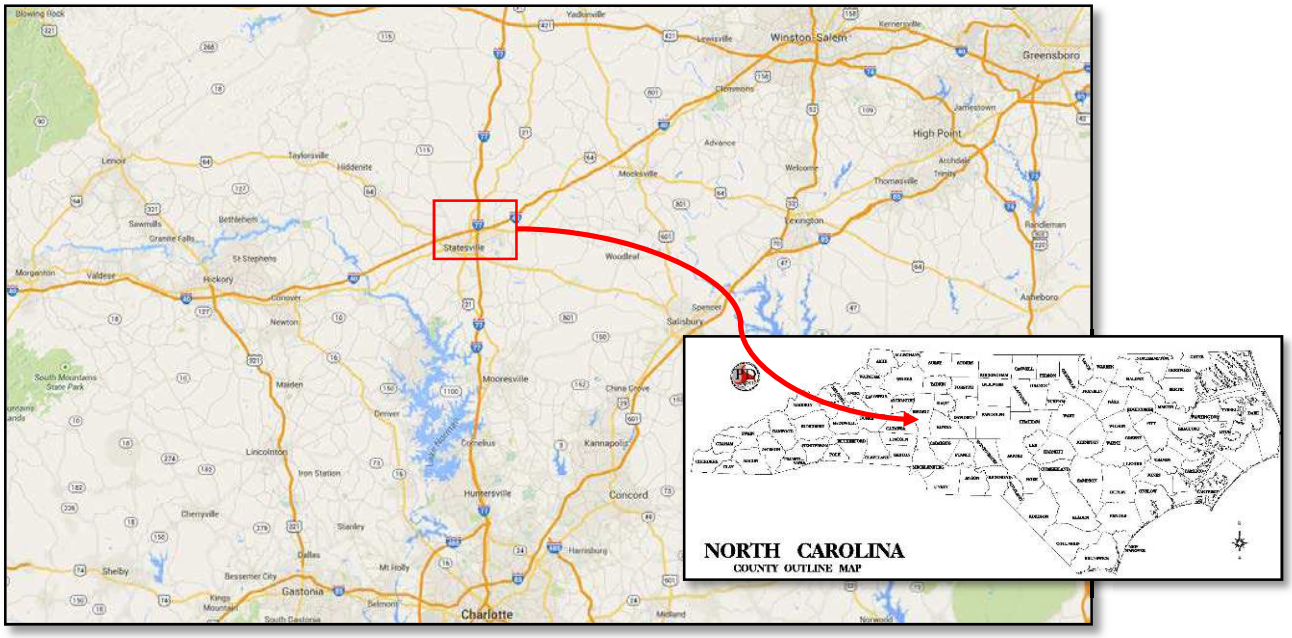
SECTION 1: PURPOSE AND NEED

1.1 INTRODUCTION

The Statesville Regional Airport, also referred to by the Federal Aviation Administration (FAA) identifier SVH, is located in Iredell County, North Carolina. The Airport is a non-towered, public-use facility situated on approximately 467 acres that is owned and operated by the City of Statesville. The facility serves a variety of general aviation (GA) users, including business and recreational aircraft, air taxi/charter flights, and flight training activity.

SVH is located approximately four miles southwest of downtown Statesville, which is situated near the intersection of Interstates 40 and 77 (**refer to Exhibit 1-1**). Charlotte is located approximately 37 miles south of Statesville via I-77 and Winston-Salem is approximately 45 miles to the northeast along I-40.

EXHIBIT 1-1: AIRPORT LOCATION MAP



Source: Parrish and Partners, LLC. 2017

The Airport is classified as a General Aviation (GA) airport that serves a regional role in the FAA's National Plan of Integrated Airport Systems (NPIAS). The FAA's Terminal Area Forecast (TAF) indicates that Statesville Regional Airport experiences a total of approximately 40,200 annual operations (2018), or approximately 110 daily takeoffs or landings, and has 101 based aircraft. Projections from the 2018 Airport Layout Plan

(ALP) Update indicate that aviation activity at SVH is anticipated to increase to approximately 66,100 annual operations and 134 based aircraft by 2034.

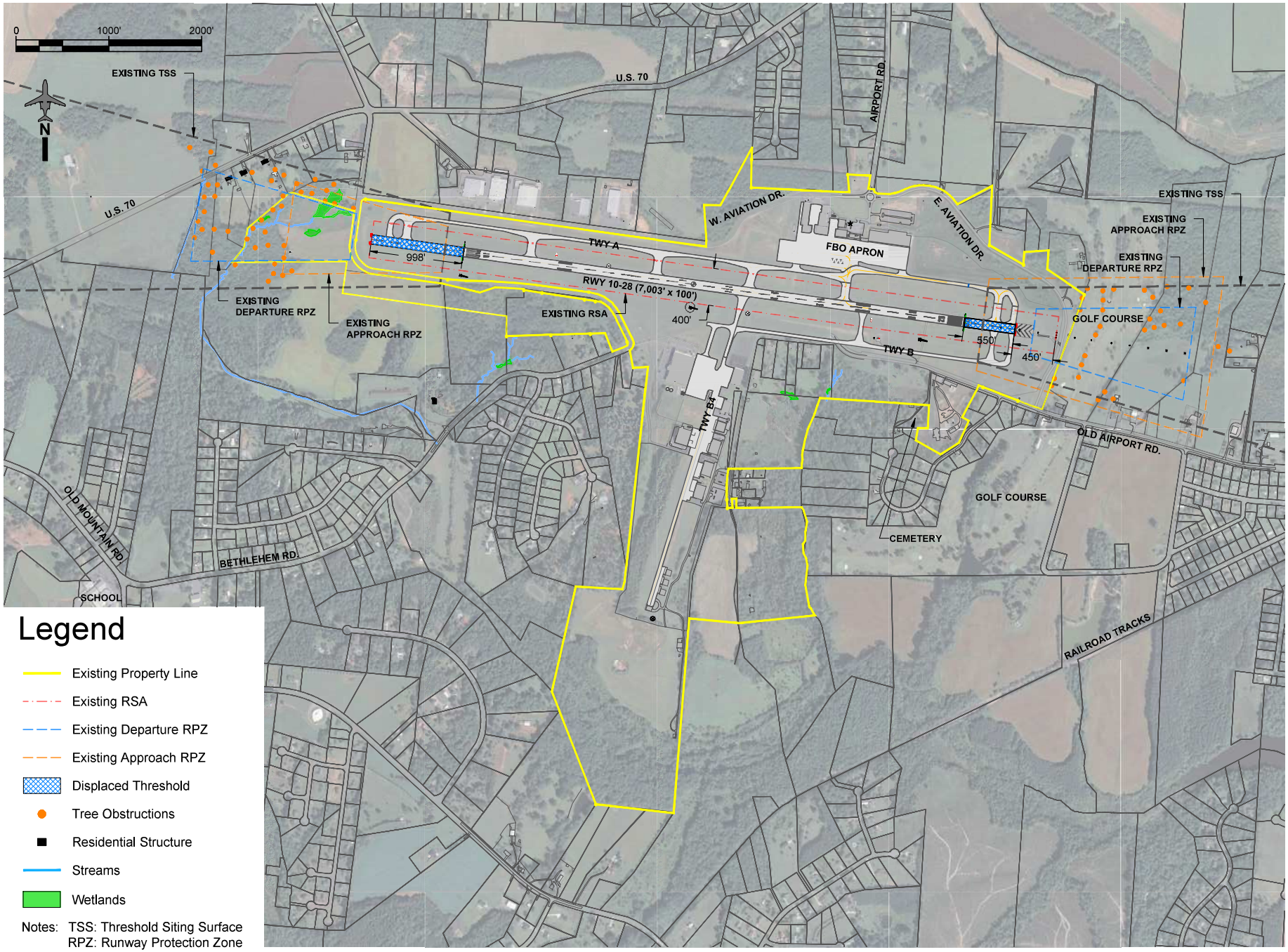
The airfield at SVH includes Runway 10-28, which is 7,003 feet long, 100 feet wide, and generally oriented east to west, with the Runway 10 end to the west and the Runway 28 end to the east. Runway 10 usage accounts for approximately 40 percent of all operations and Runway 28 accounts for 60 percent. However, Runway 28 operations (landing or starting takeoff roll at the Runway 28 end and decelerating or departing toward the west) are preferred by the larger jet aircraft at SVH and account for approximately 90 percent of takeoffs and 80 percent of landings of this class of aircraft due to several factors, including:

- Wind Coverage - prevailing winds are from the west approximately 60 percent of the time
- Safety - avoiding need to cross the active runway at this non-towered airport
- Time/Expense - shorter taxi distances to/from hangar (located on Taxiway B4; refer to **Exhibit 1-2**)

Two recommendations in the ALP Update were consideration of alternatives to mitigate the displaced thresholds and removal of penetrations to the Runway 10-28 approach surfaces. To maintain 1,000-foot Runway Safety Area (RSA) requirements, the threshold of Runway 10 is displaced 998 feet east and the Runway 28 threshold is displaced 550 feet west. Regarding removal of penetrations, the relevant airspace surfaces are imaginary surfaces centered on the extended runway centerline and collectively referred to as the "approach surfaces." Penetrations of runway approach surfaces create a hazard to safe aircraft operations. Federal Regulation Title 14 Part 77 establishes standards and notification requirements for objects affecting these approach surfaces. Currently, there are penetrations (tree obstructions) to the approach surfaces of Runway 10-28. **Exhibit 1-2** depicts the location of the existing thresholds on Runway 10-28, as well as tree obstructions that exceed FAA Part 77 approach surface criteria.

1.2 PURPOSE OF THIS SUPPLEMENTAL ENVIRONMENTAL ASSESSMENT

The North Carolina Department of Transportation, Division of Aviation (NCDOA) issued a Finding of No Significant Impact (FONSI)/Record of Decision (ROD) on October 5, 2017, for the Statesville Regional Airport Runway 10-28 Safety Enhancements Program Environmental Assessment (EA). The concurrent Airport Layout Plan Update was approved in October 2018. The overall Safety Enhancements Program approved by the 2017 FONSI/ROD consisted of several improvements associated with the RSAs/removal of the



The City of Statesville
North Carolina

Supplemental EA

Exhibit 1-2: Existing Conditions

displaced thresholds and construction of a south full-length parallel taxiway. The eastern portion of the south parallel taxiway and associated relocation of Old Airport Road were constructed in 2019.

Federal funding has been identified for RSA improvements at SVH. Based on a review of the affected environment, anticipated scope of the Proposed Action, and coordination with the FAA, it has been determined that a Supplemental EA should be performed for the proposed project. The purpose of this Supplemental EA will be to address current conditions and provide further information of potential environmental impacts associated with the proposed RSA improvements and removal of tree obstructions within the approach surfaces at SVH. The 2017 EA is incorporated by reference; this Supplemental EA focuses on those environmental impact categories that are relevant to the Proposed Action and that may have experienced changes since the 2017 EA.

This Supplemental EA was undertaken by the City of Statesville and FAA, with the support of NCDOA, to fulfill the requirements necessary for compliance with the *National Environmental Policy Act of 1969* (NEPA), FAA Order 1050.1F, *Environmental Impacts: Policies and Procedures*, and FAA Order 5050.4B, *NEPA Implementing Instructions for Airport Actions*.

1.3 PROPOSED ACTION

Previously, the Runway 10-28 Safety Enhancements Program included two primary components:

- RSA Improvements
- South Full-Length Parallel Taxiway

The RSA improvements and full-length south parallel taxiway were considered similar actions due to common geography and anticipated timing and were both covered under the 2017 EA. However, although both are safety projects, they are not connected actions by their specific purpose and need. As indicated previously, the RSA Improvements and removal of tree obstructions are the Proposed Action of this Supplemental EA (refer to **Exhibit 1-3)**.

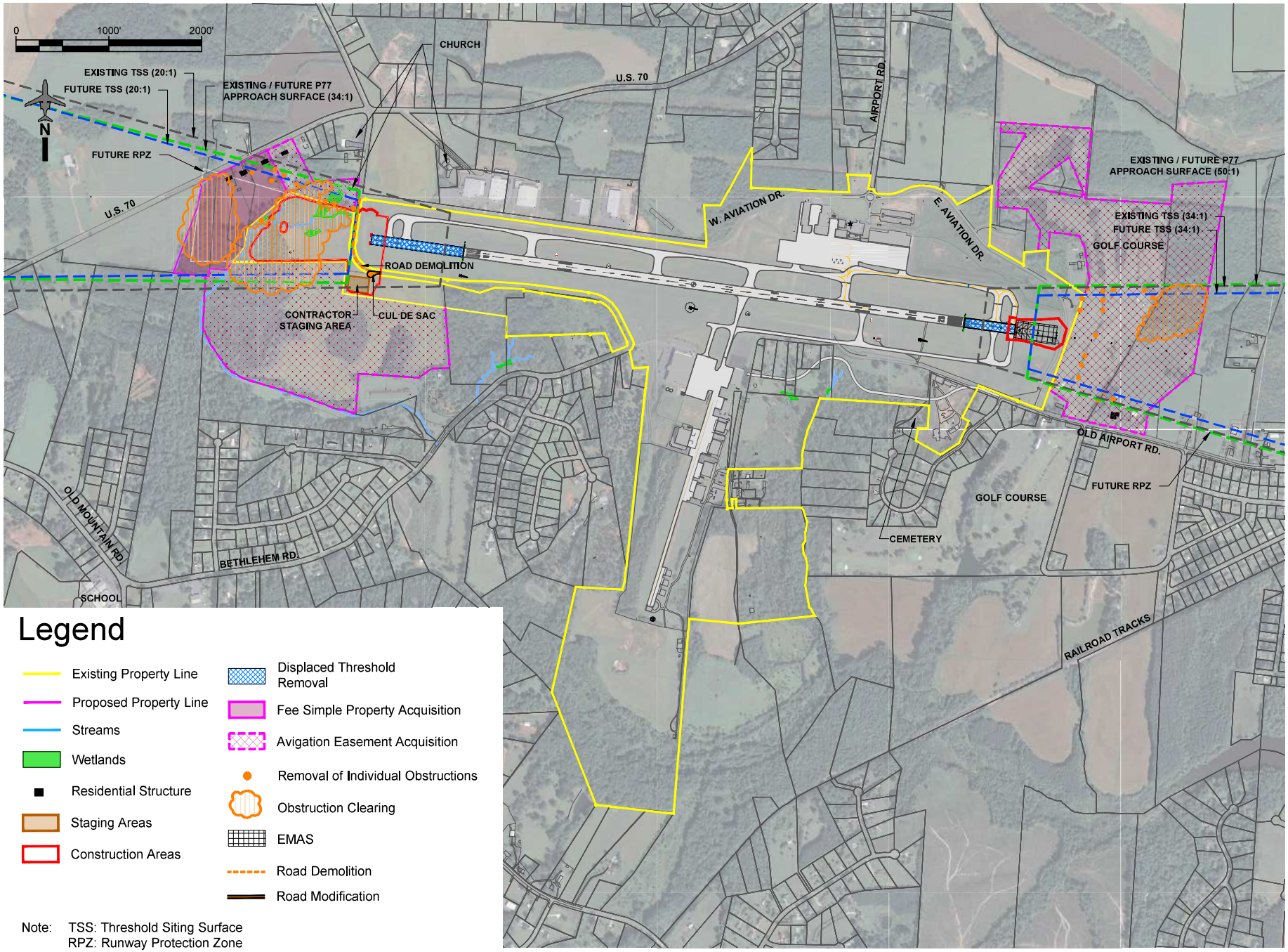


Exhibit 1-3: Proposed Action

1.4 PROJECT PURPOSE AND NEED

1.4.1 Purpose

The purpose of the proposed RSA improvements and tree obstruction removal is to enhance airport safety, regain usable runway length, and increase operational utility at SVH.

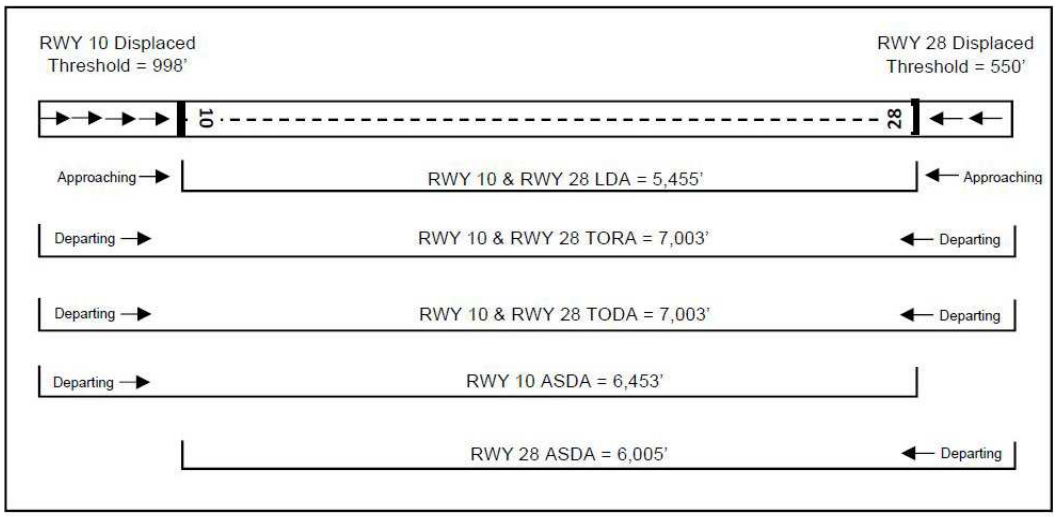
1.4.2 Need

Safety is the primary concern in aviation. One of FAA's major roles is to regulate civil aviation and promote safety. Relevant FAA design standards applicable to the proposed project are provided in FAA Advisory Circular (AC) 150/5300-13A, *Airport Design*, FAA Order 5200.8, *Runway Safety Area Program*, and Title 49 Code of Federal Regulations (CFR) Part 77, *Safe, Efficient Use, and Preservation of the Navigable Airspace*. In accordance with these standards and as described in the following paragraphs, the proposed project is needed to eliminate the existing displaced thresholds on Runway 10-28 and to clear tree obstructions to Part 77 approach surfaces at SVH.

Airfield safety areas include the Runway Protection Zone (RPZ), RSA, and Runway Object Free Area (ROFA). The role of these areas is to protect people and property on the ground, as well as aircraft using the airfield. The RSA provides an unobstructed, cleared, graded surface if an aircraft overruns, undershoots, or veers off the side of the runway. The purpose of the RSA is to reduce the risk of injury to passengers, minimize damages to aircraft, and provide greater access to emergency responders. The dimensions of the RSA are based on an airport's designated Airport Reference Code (ARC) and have increased over time to improve safety and accommodate increases in aircraft size and speed. Design requirements, such as ARC, are dictated by the critical aircraft, which is defined as the most demanding aircraft currently operating or expected to operate at the airport on a regular basis (i.e. 500 annual operations). The existing critical aircraft at SVH is the Embraer 145, with an ARC of C-II and over 1,500 operations at the Airport in 2019. Based on ARC of C-II, the required RSA at SVH is 500 feet wide and extends 1,000 feet beyond the departure end.

Runway threshold markings identify the beginning and end of the designated landing and takeoff space, under non-emergency conditions. Although Runway 10-28 is 7,003 feet long, both runway thresholds are displaced to maintain the required 1,000-foot RSA length on each runway end. As a result, the portion of the runway available for takeoff, aborted takeoff, or landing is less than 7,003 feet, under various conditions where declared distances become applicable (refer to **Exhibit 1-4**).

EXHIBIT 1-4: EXISTING DECLARED DISTANCES AT SVH



Notes: LDA – Landing Distance Available, TORA – Takeoff Distance Available, TODA – Takeoff Run Available, ASDA – Accelerate Stop Distance Available
Sources: Woolpert, 2015, Parrish and Partners, ALP Update 2018

The paved surface between the displaced threshold and the end of runway pavement serves as the safety area in the event of an aborted takeoff and is referred to as the Accelerate Stop Distance Available (ASDA). As a result of the existing ASDA, the usable runway length available for departures is significantly less than 7,003 feet (6,005 feet for Runway 28 departures and 6,453 feet for Runway 10). To accommodate these length limitations, airport tenants at SVH often must operate under restricted maximum takeoff weights.

Advisory Circular 150/5325-4B, Runway Length Requirements for Airport Design, provides guidance for determining runway length. **Table 1.1** lists the performance specifications for the critical aircraft at SVH. The takeoff distance was adjusted for elevation and temperature conditions at SVH, and Maximum Takeoff Weight (MTOW) and Maximum Landing Weight (MLW) performance were utilized to determine a more accurate representation of required runway length.

TABLE 1.1: RUNWAY LENGTH REQUIREMENTS

Aircraft	Wingspan	Tail Height	Apch. Speed	ARC	MTOW	Adjusted Takeoff Distance	MLW	Landing Distance
Embraer 145	65′-9″	22′-2″	135 kts	C-II	44,070 lbs	7,035′	42,549 lbs	4,593′

Apch Speed – Approach Speed; ARC – Airport Reference Code; MTOW – Maximum Takeoff Weight; MLW – Maximum Landing Weight.
Source: Parrish and Partners, 2018 ALP Update

As **Table 1.1** indicates, the critical aircraft (Embraer 145) requires 7,035 feet of runway for takeoff at SVH based on MTOW and atmospheric conditions. The usable runway length for departures is significantly less than 7,003 feet in order to meet RSA requirements (ASDA), which requires departing Embraer 145 aircraft to operate under restricted takeoff weights.

One of the existing tenants that is impacted by the non-standard RSAs at SVH is Victory Air, LLC. This charter flying service operates Embraer 145 jet aircraft departing from Runway 28. As depicted in **Exhibit 1-4,** these are the most restricted departures (despite being the prevailing wind direction) due to ASDA, with a usable runway length of only 6,005 feet. If not operating under current restricted takeoff weights, Victory Air would carry an estimated additional 150 gallons of fuel per flight, which would save them approximately $600,000 annually and generate an additional $50,000 in fuel flow fees for SVH. Another impact on their operations is "wear and tear" on the jet engines due to higher powered takeoffs required under the current conditions (refer to **Appendix A**).

The proposed RSA improvements would increase the amount of usable runway length available for takeoff and minimize or eliminate weight restrictions on current airport operators. It is also important to note that in addition to the use of declared distances at SVH to meet RSA length requirements, the existing RSA width is 400 feet as compared to the required width of 500 feet for ARC C-II airports. Accordingly, the 2018 ALP Update recommends mitigating the displaced thresholds by providing the FAA standard RSA requirements to ensure adequate usable runway length for existing and near-term aircraft operations at SVH.

Additionally, the RPZs were reviewed as part of the ALP Update to ensure that the safety of the Airport is being maximized by protecting the airspace surfaces for Runway 10-28. There are currently

penetrations to the existing approaches, as defined in Title 49 CFR Part 77,[1] as well as to threshold siting surfaces, as defined in FAA Advisory Circular (AC) 150/5300-13.[2] As discussed previously, penetrations of runway approach surfaces create a hazard to safe aircraft operations. Such penetrations should be addressed by removal or lowering of the obstruction. Reducing the airport's effective runway length is an alternate action that may be taken to address penetrations to the approach surface. However, this scenario, which currently exists at SVH, results in adverse operational and safety impacts to aircraft operators using the Airport. Detailed drawings and information regarding height and location of existing obstructions at SVH was included in the 2018 ALP Update and is provided in **Appendix B**.

Summary

The proposed RSA improvements would enhance runway safety, reclaim full use of the 7,003-foot runway to meet the needs of the critical aircraft at SVH, and increase runway utility by allowing aircraft to take on more fuel or more passenger load/cargo; thus, making the Airport fully functional and more competitive to existing and prospective tenants and users. Removing tree obstructions in each of the approach areas will further enhance safety at SVH for airport users and nearby property owners.

1.5 REQUESTED FEDERAL ACTION

The requested action is Federal funding and approval of the revised ALP. The proposed RSA improvements and tree obstruction data were incorporated in the ALP Update and approved by NCDOA and FAA. Since the proposal, if approved, will result in federal funding eligibility, this Supplemental EA, as well as the 2017 EA incorporated herein by reference, have been prepared to comply with the requirements of NEPA and other pertinent environmental regulations.

[1] CFR Part 77, Subpart C, https://www.ecfr.gov/cgi-bin/text-idx?rgn=div5&node=14:2.0.1.2.9#sp14.2.77.c (July 27, 2017).
[2] FAA, AC 150/5300-13, *Airport Design,* http://www.faa.gov/documentLibrary/media/Advisory_Circular/150_5300_13_chg18_consolidated.pdf (July 27, 2017).

SECTION 2: ALTERNATIVES

2.1 INTRODUCTION

As required by NEPA and the FAA implementing regulations, orders, and guidance, Section 2 evaluates alternatives considered during development of the Proposed Action. The analysis completed previously and detailed in the 2017 EA remains valid and is incorporated here by reference. The alternatives discussed in the 2017 EA include:

- No-action Alternative
- Use of Another Airport
- Preliminary Alternatives
- Alternatives Considered but Eliminated from Further Analysis
- Reasonable Alternatives
- Preferred Alternative

2.2 SUMMARY OF PREVIOUS ALTERNATIVES ANALYSIS

In addition to the No-action Alternative that serves as the baseline for the NEPA alternatives analysis and Use of Another Airport, the 2018 ALP Update identified four build alternatives that address removal of the displaced thresholds, taking into account operational and future development considerations specific to SVH.

2.2.1 No-Action Alternative

Under the No-action Alternative, the existing operational restrictions and safety challenges that were described in Section 1 would not be addressed. No RSA improvements would be implemented, existing tree obstructions would not be removed, and the displaced thresholds on Runways 10 and 28 would remain. As detailed in Section 1.4.2, several tenants at SVH are forced to limit fuel or restrict aircraft takeoff weights by other means, due to the current displaced thresholds. In addition to the adverse economic impact on Airport users, these restrictions also result in lower fuel sales for the Airport. The No-action Alternative describes the existing condition of the Airport. Although it does not address the purpose and need, the No-action Alternative is carried forward in the analysis of environmental consequences (Section 3) as a baseline against which the action alternatives are compared.

2.2.2 Use of Another Airport

Under this alternative, operations would be relocated from Statesville Regional Airport to another nearby general aviation airport. Four public use airports are located within the Service Area along with several private use airports. The public use airports include Concord Regional Airport (JQF), Hickory Regional Airport (HKY), Lincolnton-Lincoln County Regional Airport (IPJ), and Rowan County Airport (RUQ). A comparison of the facilities at these airports to that at SVH is located below in **Table 2.1.** As shown, only Concord Regional Airport could provide a runway length comparable to SVH.

TABLE 2.1: PUBLIC USE AIRPORTS WITHIN THE AIRPORT SERVICE AREA

Airport	Distance from SVH[1]	Fuel Available	Runway Information				NAVAIDS & Lighting[4]
			RWY	LxW[2]	Surface	Lights[3]	
SVH	N/A	100LL, Jet A, A1+	10 28	7,005 x 100	Asphalt	HIRL	10: REIL, PAPI, VOR, RNAV 28: MALSR, PAPI, ILS, RNAV
IPJ	24 mi	100LL, Jet A1+	05 23	5,504 x 100	Asphalt	MIRL	05: REIL, PAPI, RNAV 23: REIL, PAPI, ILS, RNAV, NDB
HKY	25 mi	100LL, Jet A	06 24	6,400 x 150	Asphalt-Grooved	HIRL	06: REIL, VASI, RNAV 24: MALSR, PAPI, ILS, RNAV, VOR
			01 19	4,400 x 150	Asphalt	MIRL	01: REIL, PAPI, RNAV 19: REIL, VASI, RNAV
RUQ	26 mi	100LL, Jet A1+	02 20	5,501 x 100	Asphalt	MIRL	02: REIL, PAPI, RNAV 20: MALSR, REIL, PAPI, ILS, RNAV, NDB
JQF	30 mi	100LL, Jet A, A1+	02 20	7,400 x 100	Asphalt-Grooved	HIRL	02: REIL, PAPI, RNAV 20: MALSR, TDZL, PAPI, ILS, RNAV

[1] *Approximate straight-line distance*
[2] *in feet*
[3] *HIRL = High Intensity Runway Lights, MIRL = Medium Intensity Runway Light*
[4] *REIL = Runway End Identifier Lighting, PAPI = Precision Approach Path Indicator, VOR = Very High Frequency Omni-directional Range, RNAV = Area Navigation, MALSR = Medium Intensity Approach Lighting System with Runway Alignment Indicator Lights, ILS = Instrument Landing System, NDB = Non-Directional Radio Beacon, VASI = Visual Approach Slope Indicator, TDZL = Touchdown Zone Lights*
SOURCE: Statesville Regional Airport, Airport Layout Plan Update, Narrative Report, Parrish and Partners, LLC, 2018.

This alternative fails to satisfy the project's Purpose and Need, would be very costly, and would burden based tenants and users of the Airport with significantly increased driving times/distances. Airport closure would result in significant negative local and regional economic impacts, such as loss of jobs, lost revenue by local businesses and airport tenants, and longer travel times for local pilots

and passengers to reach a different airport location. NCDOT's 2019 The State of Aviation report indicates that SVH supports 705 jobs and $38.5 Million annually in personal income.[3] This Alternative would result in unacceptable adverse economic impacts and was eliminated from further consideration.

2.2.3 Preliminary Alternatives

The ALP Update identified four build alternatives to mitigate the displaced thresholds at both runway ends and meet FAA RSA requirements, as described below.

Full Length RSA at Both Runway Ends - represents the impacts of providing the adequate 1,000-foot by 500-foot RSA beyond both the Runway 10 and 28 ends to gain back the lost 1,548 feet in displaced thresholds.

Extend Runway 10 with full RSA, Leave Runway 28 as is - keeps the Runway 28 displacement as it exists, but extends the Runway 10 end by 550 feet and ensures adequate RSAs to achieve a full runway length of 7,003 feet.

Extend and add EMAS to Runway 10 - identical to the above Runway 10 extension; however, an approximate 450-foot Engineered Materials Arrestor System (EMAS) is proposed off the Runway 10 end to minimize the required RSA.

Provide Full RSA on Runway 10 end and add EMAS to Runway 28 - provides for the 1,000-foot by 500-foot RSA beyond the Runway 10 end and EMAS at the Runway 28 end to minimize the potential impacts at the 28-approach end.

2.2.4 Alternatives Considered but Eliminated from Further Analysis

The following alternatives were eliminated from further analysis for failing to meet the Purpose and Need of the proposed project, for not being financially feasible, and/or for not minimizing environmental impacts.

- Use of Another Airport

[3] NC State University, Institute for Transportation Research and Education, *North Carolina: The State of Aviation, prepared for NCDOT*, January 2019, p.13.

- Full Length RSA at Both Runway Ends
- Extend Runway 10 with Full RSA
- Extend and add EMAS to Runway 10

2.2.5 Reasonable Alternative

As detailed in the 2017 EA, "Provide Full RSA on Runway 10 end and add EMAS to Runway 28" was identified as a Reasonable Alternative based on the screening criteria of satisfying the Purpose and Need, avoiding impacts to airport operations, being financially feasible and minimizing impacts to human and natural resources. Construction of this alternative would require the closure of a portion of Bethlehem Road, wetland/stream impacts and mitigation from the fill required to construct a full RSA west of the Runway 10 end, easement acquisition to clear tree obstructions from both approaches to Runway 10-28, and potential property acquisition adjacent to U.S. 70 to control the existing Runway 10 RPZ. However, this alternative meets the projects' Purpose and Need, is financially feasible, would not significantly impact airport operations, and avoids significant land acquisition impacts with the installation of an EMAS east of the Runway 28 end.

2.3 PREFERRED ALTERNATIVE DEVELOPMENT

Construction of a full RSA for the Runway 10 end and an EMAS for the Runway 28 end was identified as the only Reasonable Alternative and is carried forward as the Preferred Alternative for the Proposed Action. The Preferred Alternative will be evaluated in further detail in Section 3 of this Supplemental EA, along with the No-action Alternative. Construction of the Preferred Alternative, including the full Runway 10 RSA, NAVAID relocations, avigation easement and property acquisition, runway obstruction removal, Bethlehem Road closure/modification, and Runway 28 EMAS, is anticipated to cost approximately $27.6 million.

The Proposed Action **(refer to Exhibit 1-3)** is comprised of the following airport improvements and connected actions:

- Runway Safety Area Improvements - Under the Preferred Alternative, a standard RSA (500 feet wide and 1,000 feet long) would be constructed off the Runway 10 end during Phase I of the project, with EMAS (200 feet wide and 450 feet long) added to the Runway 28 end during future project phases. Construction of a standard Runway 10 RSA would require approximately 250,000 cubic yards of clean fill material, retaining walls to the north and south, and would impact approximately 662 linear feet of stream (both intermittent and perennial) and 0.73 acre of wetlands.

- Removal of Obstructions to Runway 10-28 Approach Surfaces – In consideration of Federal Aviation Regulation (FAR) Part 77 requirements, both the City of Statesville and Iredell County have adopted Airport Overlay Zones that place restrictions on the height of trees and structures that are located in the vicinity of SVH.[4] In order to remove tree obstructions from the approach surfaces, the process of acquiring avigation easements or fee simple land acquisition will be completed. It is anticipated that 168.5 acres of avigation easements would be needed for removal of tree obstructions within the approach surfaces (72.7 acres Runway 10 end and 95.8 acres Runway 28 end; refer to **Exhibit 1-3**). Additionally, 19.63 acres of property would potentially be acquired through fee simple purchase to control the proposed RPZ. The first phase of this work will include direct coordination with the affected property owners.
- Removal of Displaced Thresholds on Runway 10-28 –To keep the airport operational during construction, RSA improvements will occur on one runway end at a time, with the Runway 10 end being completed as part of Phase 1. Concurrent with construction of the RSA improvements and removal of penetrations from the approach surfaces, navigational aids (NAVAIDS) would be relocated. In the final stage, the runway would be remarked to remove displaced thresholds.
- Closure of a portion of Bethlehem Road – In order for a standard RSA to be constructed off the Runway 10 end, approximately 850 feet of Bethlehem Road would need to be closed to traffic. Roadway modifications on either side of the closure are anticipated to include a through street at the existing Bethlehem Road/West Aviation Boulevard intersection and a cul-de-sac to the south on Bethlehem Road (refer to **Exhibit 1-3**). Coordination with NCDOT District 12 personnel and the City of Statesville Public Works Department has been initiated and will involve a property survey and creation of an abandonment plat that will include new dedicated right of way for NCDOT maintenance of the new cul-de-sac.

Additional associated activities include:

- Changes to instrument approach/departure procedures due to changes in runway thresholds
- Construction of associated stormwater controls
- Acquisition of off-site borrow material and temporary use of staging areas, haul roads, and sedimentation and erosion control features for construction

[4] Statesville NC Code of Ordinances, Article I, Airport Hazard Overlay District; and, Iredell County Land Development Code, Section 4.6, Airport Overlay Regulations, pp. 4-14 – 4-17.

SECTION 3: AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

3.1 INTRODUCTION

The 2017 EA remains valid and is incorporated by reference; therefore, this Supplemental EA focuses on those environmental impact categories that may be affected by the Proposed Action or impact categories that may have experienced changes since they were evaluated in the 2017 EA, including:

- Historical, Architectural, Archaeological, and Cultural Resources
- Department of Transportation Act, Section 4(f)
- Noise and Noise Compatible Land Use
- Socioeconomics (Social/Transportation Patterns)
- Water Resources (Wetlands, Surface Waters)
- Cumulative Impacts

3.2 HISTORICAL, ARCHITECTURAL, ARCHAEOLOGICAL, AND CULTURAL RESOURCES

The *National Historic Preservation Act of 1966* requires federal agencies to review the effects of any proposed actions on historic properties. Historic resources are districts, buildings, sites, structures, or objects that are significant in American history, architecture, archaeology, engineering, and/or culture.[5] Prior to undertaking a project, a federal agency must determine if any resources exist in the project area through detailed literature searches and field surveys. If resources exist, then the federal agency will consult with the State Historic Preservation Office (SHPO) to determine whether the resource is eligible for listing on the National Register of Historic Places (NRHP) and how the proposed project would impact the resource.

3.2.1 Affected Environment

The November 2019 Environmental Review (ER) letter from the North Carolina Department of Natural and Cultural Resources SHPO (NC SHPO) concurred with the FAA's proposed Area of Potential Effects (APE) and also concurred that archaeological survey was not warranted for the undertaking (refer to Appendix C). The SHPO recommended a historic structures survey be

[5] 16 U.S.C. §470(a)(1).

performed to record any properties 50 years of age or older followed with a historic structures survey report that conforms with the Advisory Council on Historic Preservation's Regulations for Compliance with Section 106 codified at 36 CFR Part 800 (Advisory Council on Historic Preservation 2004:106). Between February 24 and 28, 2020, a historic architectural survey for above-ground properties within the APE was conducted following SHPO guidelines (North Carolina Department of Cultural Resources 2020b).

Per the Historic Preservation Office Website (HPOWEB), there were no properties that had been previously surveyed, or resources listed in the National Register of Historic Places (NRHP) within the APE (refer to **Exhibit 3-1**). As a result of the survey, nine resources were identified and assigned SHPO survey site numbers. Based on the research conducted, for the purposes of compliance with Section 106 of the National Historic Preservation Act, as amended, the FAA found one resource, the Stamey Farm Barn (ID1858), eligible for listing on the NRHP.

The recommended NRHP boundaries for the individual resource encompass a 300-foot buffer on all sides of the Stamey Farm Barn and continue to the U.S. 70 along the driveway (**Exhibit 3-1**). This buffer is recommended to preserve a portion of its setting and is based upon a prior survey that suggests a similar buffer for another Iredell County barn.

3.2.2 Environmental Consequences

The No-build Alternative would not result in impacts to historic resources.

Under the Preferred Alternative, the FAA has recommended the resource as eligible but contends there is no adverse effect. The potential for impact is associated only with the proposed tree clearing west of the airport near Stamey Farm Barn. The potential for an effect would be due to an impact to the setting of the resource, as the viewshed could be compromised. However, the tree clearing would be approximately 1,400 linear feet from the structure of ID1858, and approximately 800 feet from its boundary to U.S. 70, which lies between ID1858 and the trees. Due to topography, the highway creates a visual buffer when considering a viewshed impact. The considerable distance between the resource and tree removal area, coupled with the highway buffer, substantiate the finding of No Adverse Effect.

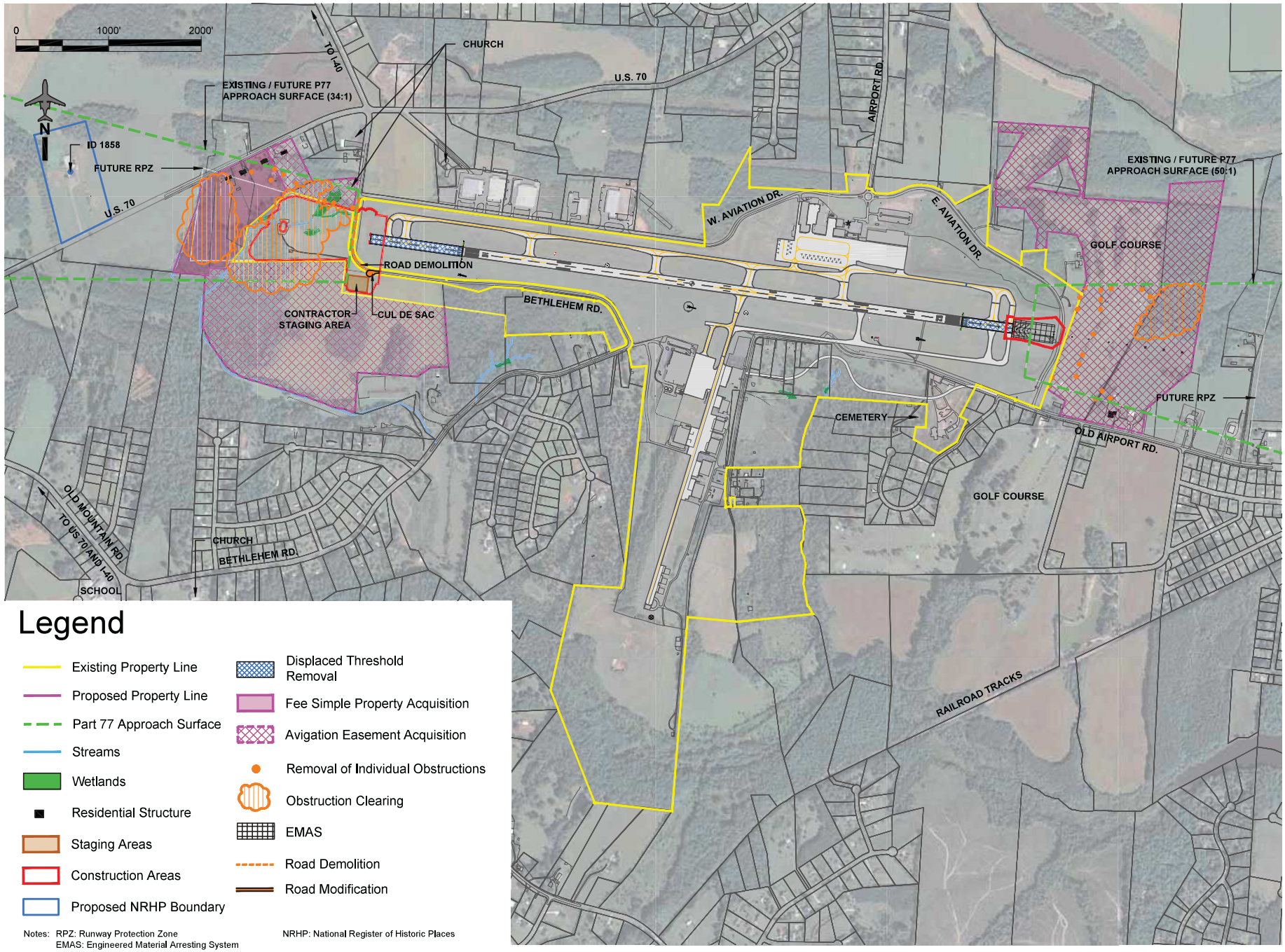


Exhibit 1-3: Proposed Action

The Historic Structures Survey Report has been submitted to the NC SHPO for review along with the FAA Section 106 Effects Determination **(Appendix C)**. NC SHPO has concurred, both that the Stamey Barn (ID 1858) is eligible for the NRHP and with the FAA's finding of No Adverse Effect for the undertaking **(Appendix C)**. SHPO has also indicated that the resource boundary warrants future determination, which is not needed as part of the proposed project.

If unforeseen cultural resources are discovered during construction, work would cease in the immediate vicinity of the resource and federal regulations pertaining to emergency discover situations would be followed. The FAA Memphis Airports District Office and the NC SHPO would be notified, and a qualified professional would evaluate the situation. Work would continue in the project area where no cultural resources are present.

3.3 DEPARTMENT OF TRANSPORTATION ACT, SECTION 4(F)

Section 4(f) of the *Department of Transportation Act of 1966,* recodified at Title 49 U.S.C. § 303(c), provides protection to publicly owned parks, recreation areas, and wildlife and waterfowl refuges, as well as historic sites. The regulations state that a Section 4(f) resource of national, state, or local significance can only be impacted by a transportation project if there is no feasible alternative that would avoid using the resource. If avoidance is not feasible, the project must include all possible efforts to minimize harm to the resource.

3.3.1 Affected Environment

Lakewood Golf Course is an 18-hole public golf club located just east of SVH and within the approach to Runway 28. Although the golf course is open to the public, it is under private ownership and is therefore, not a Section 4(f) resource. Historic sites are also protected under Section 4(f) if they meet the following criteria:

- must be of national, state or local significance
- must be on or eligible for listing on the NRHP

Unlike the other Section 4(f) property categories, historic sites do not require public ownership to qualify for protection under Section 4(f). As discussed previously, one NRHP-eligible resource, the Stamey Farm Barn, is located within the APE for the Proposed Action (refer to **Exhibit 3-1**). No other publicly owned parks, recreation areas, or refuges, or historic sites were identified within the project area.

3.3.2 Environmental Consequences

The No-build Alternative would not result in impacts to Section 4(f) resources.

The potential for impact is associated only with the proposed tree clearing west of the Airport near the Stamey Farm Barn. The proposed tree clearing and obstruction removal would not diminish the aesthetic features of the Stamey Farm Barn, nor would property be acquired from the resource. Therefore, there would be no constructive or physical use of this historic resource under Section 4(f) guidelines.

3.4 NOISE AND NOISE COMPATIBLE LAND USE

Based on national policy, airports must be constructed and operated to minimize current and future noise impacts on surrounding communities.[6] Yearly Day-Night Average Sound Level (DNL) is the primary noise metric used by the FAA to evaluate land use compatibility within an airport noise environment. The DNL metric accounts for "noise levels of all individual aircraft events, the number of times those events occur, and the period of day/night in which they occur."[7] To account for a community's increased sensitivity to noise during normal nighttime hours (10:00 p.m. to 7:00 a.m.) and the lower ambient levels of nighttime noise, a 10-decibel (dB) adjustment is included in the logarithmical average of aircraft sound levels that is incorporated into the DNL noise metric.[8] Within 14 CFR Part 150, the FAA provides guidelines for land use compatibility corresponding to DNL sound levels of 65 dB or greater (65, 70, 75, etc.).[9] The 65 DNL is generally accepted as the threshold level at or below which all land uses are considered compatible. Above 65 DNL, noise sensitive land uses, such as residential, are typically discouraged unless a degree of noise attenuation has been incorporated into the design of the structure. The FAA assesses the effects of airport development that has the potential to cause aircraft noise outside an airport's boundaries.

3.4.1 Affected Environment

Relative to the Proposed Action, a noise analysis would be needed if forecast operations exceed 90,000 annual piston-powered aircraft operations or 700 annual jet-powered aircraft operations.[10]

[6] 49 U.S.C. §47101(a)(2).
[7] FAA, 1050.1F Desk Reference, Chapter 11 – Noise and Noise Compatible Land Use, p. 11-2.
[8] Ibid.
[9] 14 CFR Part 150, Appendix A, Part B §A150.101.
[10] FAA, 1050.1F Desk Reference, Paragraph 11.1.2. Projects Not Requiring a Noise Analysis, p. 11-4.

Based on forecasts from the 2018 ALP Update, annual activity at SVH is anticipated to remain below 50,000 operations through 2034; however, the 700-operation threshold for jet-powered aircraft will likely be exceeded. Airport records indicate that in 2014, the number of jets using the Airport was 24 (projected to increase to 50 jets by 2034). Two Embraer 145[11] aircraft based at SVH in 2014 accounted for 600 annual jet operations. The number of Embraer 145 jets based at SVH has since increased to 13 aircraft. Based on this increasing amount of jet activity at SVH, it is assumed that the threshold of 700 annual jet-powered aircraft operations is exceeded. The noise environment at Statesville Regional Airport was evaluated as part of the recent ALP Update. The results of this analysis indicated that the base year (2014) 65 DNL contour remains predominantly on existing airport property. Approximately 5.1 acres of non-airport property are encompassed by the 2014 65 DNL contour. No noise-sensitive land uses would be impacted by the 2014 65 DNL contour.

3.4.2 Environmental Consequences

The previous analysis was initiated prior to September 2016 and used FAA's Integrated Noise Model (INM 7.0c). For the Supplemental EA, the FAA's current modeling program, Aviation Environmental Design Tool (AEDT 3b), was used to generate noise contours for two separate alternatives:

- Future No-action Alternative to evaluate the noise implications associated with the current threshold locations
- Future Proposed Action Alternative to evaluate the noise implications associated with relocating both thresholds to the end of usable pavement.

Both alternatives evaluate future year 2026 (5 years beyond the projected completion of Phase 1 of RSA Improvements). The noise analysis is included in **Appendix D**.

The FAA defines a significant impact as a noise sensitive use that experiences a DNL 1.5 dB change within the DNL 65 dB contour. If there are significant impacts within the DNL 65 dB contour, the FAA then requires identification of areas that receive a DNL 3 dB change (reportable change) within the DNL 60 dB contour.

[11] The Embraer 145 is identified in the ALP Update as the critical design aircraft.

Exhibit 3-2 depicts the No-action and Proposed Action Alternatives DNL 60, 65, 70, and 75 dB contours for the year 2026. **Table 3.1** provides the acreage for each contour for both alternatives. It should be noted that the higher-level contour area is inclusive of the subsequent levels, so the DNL 60 dB contour acreage also includes the area within the DNL 65, 70, and 75 dB contours. These contours represent the 24-hour aircraft noise exposure to areas surrounding the Airport on an average annual day. The overall shape of the DNL contours generally reflect the east and west orientation of the runways and flow of aircraft operations at the Airport.

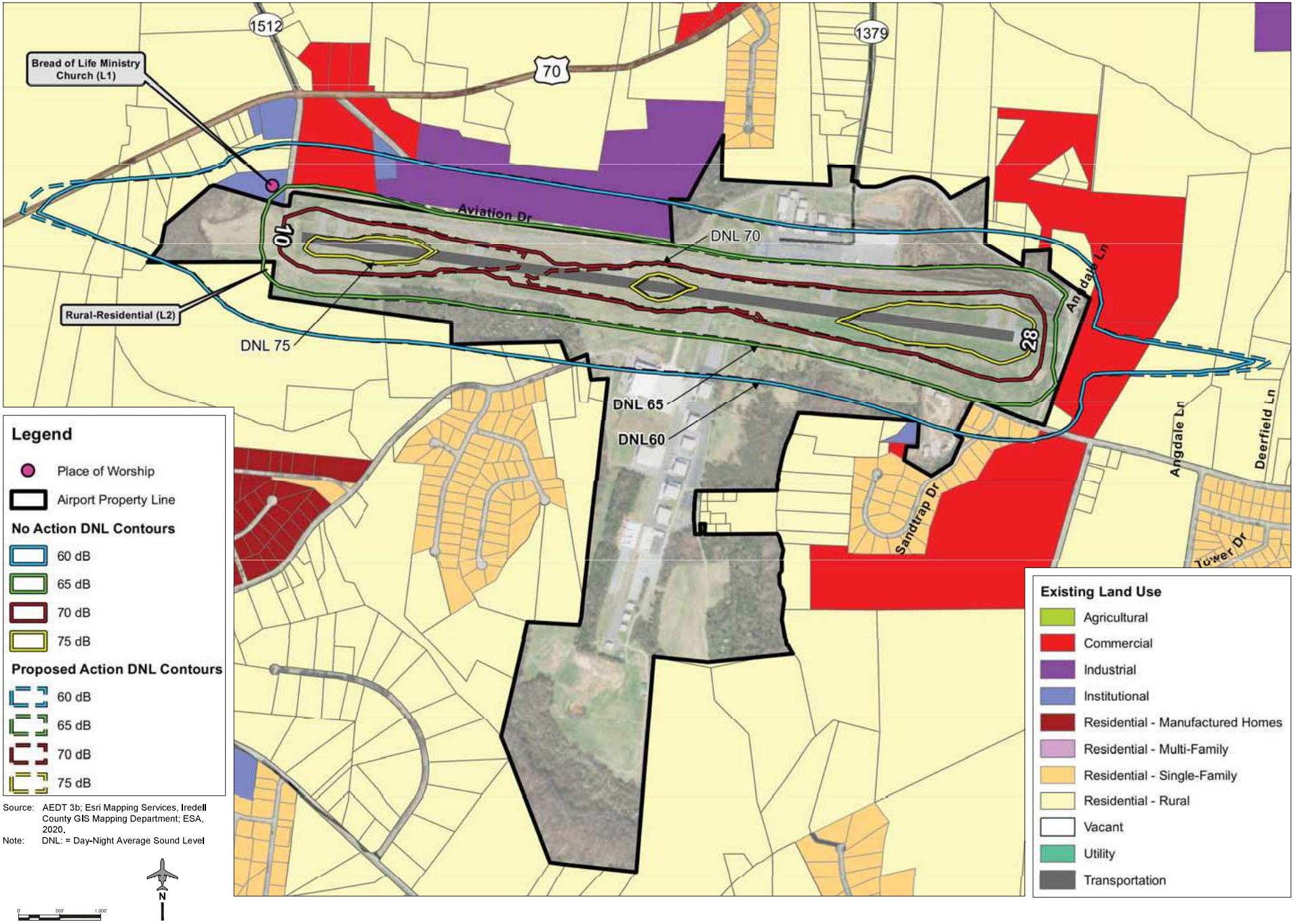
TABLE 3.1: DNL CONTOUR AREAS (ACRES)

Scenario	2026 No-Action Alternative	2026 Proposed Action Alternative	Net Change
DNL 60	377.4	381.8	4.4
DNL 65	171.9	171.0	-0.9
DNL 70	81.1	76.6	-4.5
DNL 75+	23.1	23.5	0.3

SOURCES: AEDT 3b; ESA, 2020.
60 DNL contour provided for information purposes only.

There are two noise sensitive receivers located within the DNL 65 dB contours as depicted in **Exhibit 3-2**. Bread of Life Ministry (L1) is located on a parcel at the northwest corner of the DNL 65 dB contour and a small portion of residential land use (L2), located to the southwest corner of the DNL 65 dB contour on the Runway 10 end, is also included. There are no institutional or residential structures located within the DNL 65 dB contour in either instance. At both sites, the noise level decreased by 0.1 dB with the Proposed Action Alternative as compared to the No-action Alternative.

Land use in the vicinity of SVH is primarily industrial, commercial, institutional, and rural-residential. The residential areas are located immediately to both the north and south of the Runway 28 end, as well as to the south of the Runway 10 end. As noted previously, a small portion of rural-residential land use is captured by the No-action and Proposed Action alternative DNL 65 dB contours to the south of the Runway 10 end. The area of the rural-residential parcel within DNL 65 dB contour does



Source: AEDT 3b; Esri Mapping Services, Iredell County GIS Mapping Department; ESA, 2020.

Note: DNL: = Day-Night Average Sound Level

Exhibit 3-2: Noise Contours

not include any structures (e.g., homes) and the parcel does not experience a 1.5 dB or greater increase in noise exposure under the Proposed Action Alternative; as such, no significant impact results from the Proposed Action Alternative. Land uses within the DNL 60 dB and greater contours for both alternatives are summarized in **Appendix D.**

3.5 SOCIOECONOMICS (SOCIAL IMPACTS / TRANSPORTATION PATTERNS)

The original analysis in the 2017 EA remains valid. The affected environment has been updated and the environmental consequences associated with closing an approximately 750-foot section of Bethlehem Road are evaluated.

3.5.1 Affected Environment

Statesville Regional Airport is a valuable economic asset within the region. NCDOT's 2019 The State of Aviation report evaluated the impact of jobs supported by SVH, jobs supported by businesses that rely on the Airport, and the impact of visitors. The findings indicate that annually SVH supports 705 jobs and $38.5 Million in personal income and generates $8.414 Million in state and local taxes for a total economic output of $134.580 Million.[12]

The demographics and socioeconomics of the area surrounding the Airport were also evaluated. To assess potential environmental justice communities as required by Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, the USEPA EJ Screen and US Census QuickFacts databases were used to for demographic and socioeconomic comparisons between the SVH Vicinity (a two-mile radius of the Airport), Iredell County, and NC. **Table 3.2** provides select characteristics for these three geographic areas. The minority population in the vicinity of the Airport comprises approximately 33 percent of the total population, as compared to 24.2 percent for Iredell County. Both these percentages are lower than that of North Carolina, which has a 36 percent minority population. As shown in **Table 3.2**, the population in the immediate vicinity of the Airport has a per capita income that falls below that of Iredell County and North Carolina. This metric does not translate closely to the poverty level data, as NC was slightly higher than the SVH Vicinity. Comparable data for Iredell County was not

[12] NC State University, Institute for Transportation Research and Education, *North Carolina: The State of Aviation*, prepared for NCDOT, January 2019, p. 13.

identified. Based on **Table 3.2**, minority and low-income populations are located in the vicinity of the Airport.

TABLE 3.2: SELECT DEMOGRAPHIC AND ECONOMIC CHARACTERISTICS

AREA	CHARACTERISTIC			
	Total Population[2]	**Percent Minorities[1,2]**	**Per Capita Income[2]**	**Percent Below Poverty Level[1]**
North Carolina	10,488,084	36	$29,456	37
Iredell County	181,806	24.2	$32,006	--
SVH Vicinity	3,841	33	$22,501	36

Sources: [1]USEPA EJ Screen, April 2020
[2]US Census QuickFacts, 2019 population estimates

3.5.2 Environmental Consequences

Social Impacts

The following resource categories were used to evaluate the social impacts associated with the No-action Alternative and the Proposed Action:

- Health or safety risks to children
- Residential and business relocations
- Division or disruption of established communities
- Alteration of transportation patterns
- Disruption of planned development
- Discernible changes to employment

The No-action Alternative would not result in social impacts to the communities surrounding the Airport.

No discernible changes to employment are anticipated and there would be no business relocations. The project would not divide established communities or disrupt planned development, nor would the Proposed Action result in relocations of community facilities, such as schools, churches, and/or medical facilities. The Proposed Action is consistent with the City of Statesville and Iredell County land use plans.

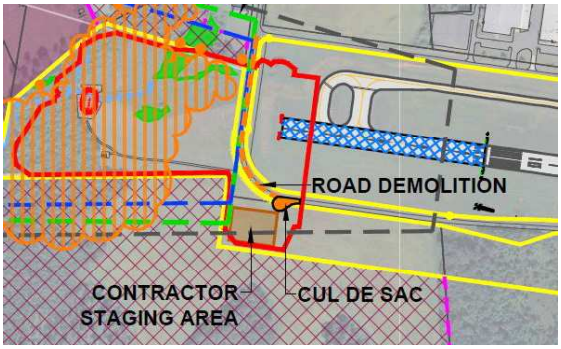
The Bread of Life Church would not be relocated by the Proposed Action but is located at the northwest corner of the DNL 65 dB contour for both the Proposed Action and the No-action Alternatives. As describe in Section 3.4, the noise level at this location decreased by 0.1 dB with the Proposed Action Alternative as compared to the No-action Alternative.

The Proposed Action would result in three residential relocations and a total of approximately 20 acres of land acquisition. One of the three residences and a significant portion of all three residential parcels are located within the existing Departure RPZ (Future RPZ; refer to **Exhibit 1-3**). The RPZ functions to "enhance the protection of people and property on the ground."[13] Under FAA guidance in AC 150/5300-13A, airports are strongly encouraged to have full control over the RPZ; therefore, acquisition of these three residences is proposed. Additional social impacts associated with the Proposed Action would include potential acquisition of approximately 168.5 acres of avigation easements as needed for removal of tree obstructions.

The three residential relocations and 20 acres of property acquisition would be completed in accordance with the Uniform Relocation and Assistance and Real Property Acquisition Policies Act of 1970, as amended (Uniform Act). Those being relocated would receive the full benefits entitled under the Uniform Act, including fair market value compensation for the acquired property and equitable compensation normally associated with relocating. In accordance with Title VI of the Civil Rights Act of 1966, the FAA shall provide relocation advisory assistance to all eligible persons without discrimination. It is anticipated that replacement housing would be available in the vicinity of the Airport. Based on review of 2010-2014 American Community Survey data, there were 9,282 vacant housing units in Iredell County (13.34 percent), with 1,772 of those available for rent (2.55 percent) and 1,361 houses available for purchase (1.96 percent).[14] These percentages of available homes in Iredell County (for rent and sale) exceed those of North Carolina and the U.S.

[13] FAA, AC 150/5300-13A, Airport Design, Paragraph 310, p. 71.
[14] USA.com, "Iredell County Housing,"http://www.usa.com/iredell-county-nc-housing.htm#Housing-Occupancy (April 24, 2020).

The proposed Runway 10 RSA improvements would extend across Bethlehem Road to the west. The proposed closure, depicted on **Exhibit 1-3** (and **Inset** below), would result in modified traffic patterns near the Airport. Bethlehem Road, which is a secondary route maintained by the NCDOT, extends south from the intersection of U.S. 70 (Hickory Highway) and Stamey Farm Road, travels around the western end of Runway 10-28 then parallels the runway before turning south toward the entrance to Lowe's Aviation. At that point, the road turns 90 degrees and heads west, approximately 1.2 miles to its termini at Old Mountain Road near the entrance Celeste Henkel Elementary School. The approximately 850-foot segment of Bethlehem Road located immediately west of the Runway 10 end would be closed. To the north, the intersection of Bethlehem Road and West Aviation Drive would be modified to a through street. The segment of Bethlehem Road just south and parallel to Runway 10-28 would terminate in a cul-de-sac (refer to **Inset** and **Exhibit 1-3**).



Proposed Bethlehem Road Closure/Modification

The closest NCDOT Annual Average Daily Traffic (AADT) station is located just north of the intersection of Bethlehem Road and West Aviation Drive. The 2018 AADT at this location was 910 vehicles, with a portion of that traffic assumed to be traveling to/from the Airport and businesses on West Aviation Drive (approximately 145 employees). The proposed road closure would add approximately 2 to 3 minutes of travel time for residents, as well as police and EMS responders. Fire service to the area south of the Airport along Bethlehem Road would likely come from the West Iredell Fire Department located 2136 Old Mountain Road and would not be impacted by the closure. The proposed closure would result in higher traffic volumes at the stop sign-controlled intersection of Bethlehem Road and Old Mountain Road and the traffic light-controlled intersection of Old Mountain Road and US 70.

NCDOT 2018 AADT Map

As part of the 2015 Clearinghouse Review of the proposed project, NCDOT indicated that the project should be coordinated with the NCDOT Division 12 Resident Engineer to ensure that there are no

potential conflicts with other NCDOT projects. Coordination with NCDOT District 12 personnel and the City of Statesville Public Works Department has been initiated and will involve a property survey and creation of an abandonment plat that will include new dedicated right of way for NCDOT maintenance of the new cul-de-sac. The NCDOT would also complete design reviews at critical points during future project phases.

Based on the low volume of traffic utilizing this segment of Bethlehem Road and initial coordination with NCDOT, the Proposed Action would not result in significant alterations to existing transportation patterns. Coordination with emergency responders regarding the proposed change in travel pattern and access has been initiated by the City.

In addition, the Proposed Action may increase the amount of surface traffic to and from the Airport in the short-term during construction. However, these increases would not be anticipated to result in significant impacts to the AADT.

3.6 WATER RESOURCES (WETLANDS AND WATERS OF THE U.S.)

The original analysis in the 2017 EA remains valid. The affected environment has been updated to reflect the results of a new wetland delineation and the environmental consequences have been revised relative to the Proposed Action.

3.6.1 Affected Environment

Potential wetland areas were assessed using the USACE Routine On-Site Determination method as described in the 1987 Corps of Engineers Wetland Delineation Manual and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Eastern Mountains and Piedmont Region.[15] An area must exhibit evidence of wetland vegetation, wetland soil, and wetland hydrology to be considered a wetland. Isolated wetlands and areas created in upland but not intended to create wetland conditions, such as storm water management features on existing airport property, are not considered jurisdictional waters of the U.S. Stream channel reaches and other drainage features

[15] USACE, Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Eastern Mountains and Piedmont Region, Version 2.0, 2012.

were assessed in accordance with the Methodology for Identification of Intermittent and Perennial Streams and Their Origins, Version 4.11.[16]

A Preliminary Jurisdictional Determination (PJD) was approved by the USACE Wilmington District on August 16, 2016 (Action I.D.: SAW-2015-01645), as part of the 2017 EA. Based on recent site visits with the USACE and NCDEQ-DWR personnel, slight modifications to the original PJD were requested. A new PJD application (refer to **Appendix E**) has been submitted and is awaiting approval by the USACE. **Table 3.3** summarizes the results of the current PJD. Changes include minor modifications to wetland size and the classification of one stream reach being changed from intermittent to perennial.

TABLE 3.3: WATERS OF THE UNITED STATES WITHIN THE PROJECT AREA

Wetlands		
Wetland ID	**Type**	**Area (acres)**
WA	Palustrine Emergent/Scrub-Shrub	0.797
WB	Palustrine Emergent	0.156
WC	Palustrine Forested	0.05
	Total:	**1.012 ac**
Streams		
Stream ID	**Classification**	**Length (linear feet)**
ISA	Intermittent	375
SA	Perennial	469
	Total:	**844 lf**

Source: Pilot Environmental, Inc., 2020 PJD Package and Individual Permit Application

3.6.2 Environmental Consequences

In accordance with the CWA and Executive Order 11990: *Protection of Wetlands*, potential impacts to wetlands and other jurisdictional waters of the United States were evaluated for the proposed project, as well as mitigation options to offset unavoidable impacts. The No-action Alternative would not impact any waters of the U.S. Based on the construction footprint for the Proposed Action, it is anticipated that approximately 673 linear feet of streams and 1.0 acre of wetlands would be impacted by the Proposed Action (refer to **Exhibit 1-3**).

[16]NCDWQ, Methodology for Identification of Intermittent and Perennial Streams and Their Origins, Version 4.11. 2010.

In response to initial agency review of the project during the scoping phase of the 2017 EA, the USACE commented that due to previous impacts authorized at the Statesville Regional Airport, additional airport development-related impacts to waters of the U.S. (both on airport property and adjacent parcels) would be combined with the previous impacts and reviewed cumulatively.[17] Previous development projects at SVH have included the construction of the localizer antenna west of Runway 10-28 (141 linear feet of impact) and the eastern extension of Runway 10-28 (1,902 linear feet of stream impact), both in 2004. The USACE also indicated that "cumulative impacts that result in the loss or degradation of greater than 300 linear feet of perennial or intermittent stream channel, and/or 0.5 acre of wetland, will be processed under an Individual Permit."[18] Based on these comments and the quantity of impacts to waters of the U.S., previous and proposed, construction would require an Individual Permit under Section 404 of the CWA. In addition to the Section 404 permit, a Section 401 water quality certification, as administered by the NCDENR-DWQ, will also be required prior to impacting wetlands and streams.

All jurisdictional waters of the U.S. within the proposed construction footprint associated with the Proposed Action are tributaries to Back Creek, which is not considered a navigable waterway; thus, no impacts to navigation would result.

3.6.3 Mitigation

An objective of the CWA is "to restore and maintain the chemical, physical, and biological integrity of the Nation's waters." Toward achievement of this goal, the CWA prohibits the discharge of dredged or fill material into wetlands, streams, and other waters of the United States unless a permit is issued by the USACE or approved State agency. In 1990, the USACE and the United States Environmental Protection Agency entered into a Memorandum of Agreement (MOA) for the determination of mitigation under the CWA Section 404 (b)(1) guidelines. The MOA established a three-part process, known as the "mitigation sequence," to help guide mitigation decisions and determine the type and level of mitigation required under CWA Section 404 regulations. The

[17] USACE, Email correspondence from Tasha Alexander, "Subject: Comments for Statesville Regional Airport," July 30, 2015.
[18] Ibid.

sequencing involves avoiding impacts to waters of the U.S., minimizing impacts that are unavoidable, and compensating for the unavoidable adverse impacts that remain.

Avoidance and Minimization

Practicable measures were implemented during planning and preliminary design of the Proposed Action to avoid wetlands and streams to the maximum extent possible. Minimization of impacts to wetlands and streams was accomplished with the design of two retaining walls for the Runway 10 RSA Improvements; however, due to the location of streams and wetlands located within the construction footprint, complete avoidance was not feasible.

Construction activities would be confined to the permitted construction limits. During construction, potential impacts to adjacent jurisdictional areas would be minimized by implementing sediment and erosion control measures. Other Best Management Practices (BMPs) would be required of the contractor to ensure compliance with the policies of 23 CFR §650B. All temporary and permanent stormwater management techniques and permit requirements will be designed to ensure they are not in conflict with AC 5200-33B, *Hazardous Wildlife Attractants on or Near Airports*. If needed, permitting issues related to stormwater and wildlife attractants would be coordinated with the USDA, Animal and Plant Health Inspection Services, Wildlife Services office.

Compensation

In 2008, the USACE and USEPA issued the Department of Defense, Department of the Army, Corps of Engineers 33 CFR Parts 325 and 332/Environmental Protection Agency 40 CFR Part 230 Compensatory Mitigation for Losses of Aquatic Resources; Final Rule (Final Rule), which establishes a preference hierarchy for the type of compensatory mitigation. The most preferred option is purchase or use of mitigation bank credits. The second most preferred option is in-lieu fee program credits. Permittee-responsible mitigation is the third option. The use of onsite mitigation to meet mitigation obligations is discouraged, unless there are no established banks that service the project area. In addition, FAA policy prohibits the creation of wildlife attractants on airport properties, since such areas tend to attract waterfowl and can increase the potential for bird strikes.[19]

[19] FAA Advisory Circular 150/5200-33, May 1, 1997, p. 6.

Impacts to streams and wetlands resulting from the Proposed Action would require compensatory mitigation. Review of the USACE Regulatory In-Lieu Fee and Bank Information Tracking System indicates that no existing private mitigation banks currently service the PSA. Therefore, it is anticipated that the mitigation requirements for the Proposed Action would be met through the purchase of credits from the NCDEQ-DMS in-lieu fee program. The NCDEQ-DMS has confirmed that the required mitigation credits for compensatory mitigation of Warm Stream and Riparian Wetland impacts within 8-digit HUC 03040102 of the Yadkin Basin are now available (refer to **Appendix E**).

Although the Section 404 permit will have associated mandatory mitigation, the amount of the required mitigation has not yet been finalized. Mitigation for intermittent stream impacts at a ratio of 1:1, perennial stream impacts at a ratio of 2:1, and wetland impacts at a ratio of 2:1 has been proposed as part of the Section 404 permit that is currently under review. Based on these ratios, compensatory mitigation of the Proposed Action could require the purchase of approximately 1,000 stream credits and 2 wetland credits. At the NCDEQ-DMS in-lieu fee program's current price per credit within the Yadkin Basin of $525.65 per stream credit and $52,273.99 per wetland credit, anticipated mitigation costs would be approximately $630,200.

3.7 CUMULATIVE IMPACTS

The evaluation completed in the 2017 EA remains valid and is updated here to address construction of the eastern portion of the south parallel taxiway, Taxiway B, in 2019 and anticipated construction of the western portion of Taxiway B and relocated Bethlehem Road as reasonably foreseeable future actions and not components of the Proposed Action.

This section discusses the methodology and significance thresholds used to determine potential cumulative impacts resulting from the No-action Alternative and the Proposed Action. Cumulative impacts are defined by 40 CFR §1508.7 as "the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions."[20] Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.

[20] FAA, 1050.1F Desk Reference, Chapter 15, Cumulative Impacts, p. 15-1.

3.7.1 Affected Environment

The cumulative impact analysis under NEPA requires that the proposed action's direct and indirect impacts on a particular resource be assessed to determine if those effects in combination with the effects of other projects on the same resource would be cumulatively significant.[21] Accordingly, the resources of concern relative to the Proposed Action include Section 106 resources, noise, socioeconomics, visual effects, and water resources (wetlands and water quality). Both on- and off-airport development activities are considered in the analysis and the thresholds for significance are the same as applied to the initial evaluation of resources, as summarized in FAA Order 1050.1F.[22] Finally, the level of detail for the evaluation of cumulative impacts should correspond to the potential for significant impacts.[23]

3.7.2 Environmental Consequences

Past residential and commercial development has occurred in the vicinity of the Airport. Based on review of aerial photography, several commercial buildings were constructed around 2005 north of Aviation Drive, parallel to Runway 10-28, and The Landings neighborhood was developed to the south off of Bethlehem Road, around the same time. The population of Iredell County is expected to increase approximately 30 percent between 2014 and 2035, to 211,712 people; therefore, continued land development pressure would be anticipated in the County due to population growth. In addition, the City of Statesville and Statesville Regional Development (a public-private partnership) actively seek to promote the region and pursue specific economic development opportunities. The City of Statesville recently agreed to invest several million dollars in new utilities for a proposed 1,000-acre industrial park, Larkin Regional Commerce Park, just southwest of Statesville near I-77. Phase I of the development was approved in September 2019 and will include a 1 million square-foot building and approximately $30 Million of new construction. This industrial park will be developed over the next 10 to 15 years and could result in an increased number of tenants and aircraft operations at SVH. The City of Statesville has also recently initiated the planning and preliminary design of a road generally running north to south that would connect Bethlehem Road to Old Mountain Road, west of Taxiway F1. These past, present, and reasonably foreseeable

[21] Ibid.
[22] FAA, Order 1050.1F, Chapter 4, Exhibit 4-1, Significance Determination for FAA Actions, p. 4-4.
[23] FAA, 1050.1F Desk Reference, Chapter 15, Cumulative Impacts, p. 15-1.

projects near the Airport would be anticipated to add impervious surfaces, affect socioeconomics within the region, and impact waters of the U.S.

Regarding airport development, the past, present, and reasonably foreseeable projects at SVH are identified in the 2018 ALP Update Narrative Report and listed in **Table 3.4**. In addition to the projects included in the Proposed Action, these Capital Improvement Plan (CIP) projects would result in construction of additional impervious surfaces, potential impacts to Section 106 resources, lighting systems modifications, land acquisition, and impacts to waters of the U.S.

TABLE 3.4: PAST, PRESENT, AND REASONABLY FORESEEABLE CIP PROJECTS AT SVH

YEAR	PROJECT
Past	
2009	Runway and Taxiway Rehabilitation and Strengthening
2010	Apron Rehabilitation and Strengthening
2011	Apron Expansion
2013	Perimeter Fencing
2014	Runway 28 Blast Pad
2019	East Portion of Taxiway B
Present	
2020	TW Lighting Rehabilitation
Reasonably Foreseeable	
2021	Runway 10 Localizer Relocation
2020-2022	East/South Corporate Development Area – apron & hangar
2023-2024	West Portion of Taxiway B
2023-2024	Relocated Bethlehem Road
2024	RW 10 Blast Pad

Note: Years indicate fiscal year for design and/or construction.
Source: 2018 ALP Update Narrative Report and 2020 CIP information, Parrish and Partners, LLC

Historical, Architectural, Archaeological, and Cultural Resources

Based on the historic architectural survey completed for the Supplemental EA, the FAA finds the Stamey Farm Barn (ID1858) eligible for listing on the NRHP **(Appendix C)**. As discussed in Section 3.2, the Proposed Action would have No Adverse Effect on this resource. Coordination with the NC SHPO is currently underway regarding resource eligibility and the FAA's Determination of Effect.

By affecting the setting of the resource, the intersection of U.S. 70 with the proposed relocated Bethlehem Road could result in adverse effects to the Stamey Farm Barn. Based on input from NC

SHPO during future coordination, the proposed location of this road intersection may be modified to avoid potential impacts to the resource.

Noise

Based on the noise analysis that was conducted as part of this Supplemental EA (**Appendix D**), one noise sensitive receptor, Bread of Life Church, is located at the northwest corner of the DNL 65 dB contour for both the Proposed Action and the No-action Alternatives. As describe in Section 3.4, the noise level at this location decreased by 0.1 dB with the Proposed Action Alternative as compared to the No-action Alternative. Regarding the proposed CIP projects, indirect development associated with construction of the West Portion of Taxiway B could result in additional aircraft operations. This additional activity may need to be modeled with the FAA's current modeling program, AEDT. However, it is important to note that these increased operations were accounted for in the 2018 ALP Update forecasts used for the TNM noise modeling of the 2034 Proposed Action noise contours in the 2017 EA. Based on a comparison of the TNM contours from the 2017 EA and the AEDT contours (**Figures 3-2 and 3-3**), the results would not be anticipated to vary greatly. Although significant increases in cumulative noise levels are not anticipated, additional noise modeling may be deemed appropriate for evaluation of future activity levels associated with construction of the West Portion of Taxiway B.

Socioeconomics

Based on the ALP, the full development of the East/South Corporate Development Area would result in property acquisition and the relocation of approximately six residences east of Taxiway F1 and related to construction of additional apron/hangars and a perimeter road extending from existing Old Airport Road south to tie-in with Old Mountain Road. In addition, one residential relocation is anticipated with the construction of Relocated Bethlehem Road between U.S. 70 and Bethlehem Road, southwest of Runway 10-28. It is not anticipated that the past, present, or future projects at or in the vicinity of SVH would result in discernible changes to employment or business relocations, disrupt existing or planned communities, relocate community facilities, or be inconsistent with established City or County land use plans. Although additional residential relocations and property acquisition (20 acres with the Proposed Action and an additional 119 acres for reasonably foreseeable projects) are anticipated, such actions would be completed in accordance with the *Uniform Relocation and Assistance and Real Property Acquisition Policies Act of 1970*, as amended.

Future growth and development in the vicinity of the Airport, including the new 1,000-acre Larkin Regional Commerce Park, would be anticipated to result in an overall positive economic impact within the region.

Visual Effects

There is currently a lighting rehabilitation project underway at SVH. As a result of this project, several airfield lighting systems are being upgraded to Light Emitting Diode (LED) lights. This ongoing project will result in improved energy efficiency for the Airport but would not create an annoyance/disturbance to nearby residences or businesses. It also would not result in additional light emissions nor visual impacts when considered cumulatively with the Proposed Action.

Based on the Reasonably Foreseeable CIP Projects in **Table 3.4**, the visual layout of the Airport on the southern side would be altered with the acquisition of approximately 119 acres of property; 113 acres for construction of the West Portion of Taxiway B and relocation of Bethlehem Road, as well as an additional 6 acres for the South Corporate Development Area. Although an existing wooded buffer currently exists between aviation-related development adjacent to Taxiway F1 and residences within The Landings subdivision, visual impacts could result from the construction of a north-south road connecting Bethlehem Road to Old Mountain Road, which is currently under evaluation by the City of Statesville.

Water Resources

Past residential and commercial development has occurred in the vicinity of the Airport. This development has increased impervious surfaces in the watershed the Airport is located within. This trend is expected to continue based on the future population growth anticipated for Iredell County, as well as commercial and industrial development opportunities being pursued in the Statesville region. Although the Proposed Action would not add any impervious surfaces, construction of the West Portion of Taxiway B and Relocated Bethlehem Road would result in 11.6 acres (506,600 square feet) of new impervious surfaces at SVH, added to the approximately 3 acres of impervious surfaces from the 2019 construction of the East Portion of Taxiway B. Other CIP projects involving additional impervious surfaces include past apron expansion and construction of the Runway 28 blast pad (0.7-acre total), as well as the proposed construction of the East/South Corporate Development Area and the Runway 10 blast pad (47 acres total).

The Airport has worked to address past stormwater concerns from neighbors and is currently coordinating with the contractor responsible for the 2019 construction of Taxiway B to re-grade an area near the intersection of E. Aviation Drive and Old Airport Road in order to correct drainage issues. With regard to the proposed project, to ensure that overland stormwater flow will protect downstream water quality, NCDEQ is requiring documentation that the new fill slopes and constructed swales will maintain flows at non-erosive velocities during the peak flow from a 10-year storm. Permitting of the future development projects identified in **Table 3.4** would be required through the NCDEQ's Post-Construction Program. Added runoff from these future projects would be required to be treated through new or existing water retention ponds, which would minimize potential contaminants from impacting the water quality.

The Proposed Action would impact approximately 1 acre of wetlands and 673 linear feet of stream. Construction of the Relocated Bethlehem Road would be anticipated to impact 249 linear feet of streams. Additionally, although there are no National Wetland Inventory wetlands mapped in the vicinity of the City of Statesville's proposed north–south road to be located west of Taxiway F1, a crossing of Back Creek would be required for any connection to Old Mountain Road. Executive Order 11990 and the Section 404 process have dramatically reduced the rate of wetland loss; however, impacts to waters of the U.S. will continue. The protection of wetlands is regulated on a case-by-case basis by state and federal agencies. Impacts to wetlands or other waters of the U.S. would require an individual permit from the USACE and mitigation for unavoidable impacts prior to construction, as well as Section 401 Water Quality Certification, as administered by the NCDENR-DWQ.

SECTION 4: AGENCY COORDINATION AND PUBLIC INVOLVEMENT

4.1 AGENCY COORDINATION

Agencies involved in project coordination include the USACE, NCDEQ-DMS, NCDOA, NCDOT Division 12, NC SHPO, and City of Statesville Engineering Department. Review of the Draft Supplemental EA has been coordinated with the following agencies.

FEDERAL

- USACE, Wilmington District, Asheville Regulatory Field Office
- USEPA
- USFWS, Asheville Field Office

STATE

- N.C. Department of Administration, State Environmental Review Clearinghouse
  - N.C. Department of Agriculture
  - N.C. Department of Cultural Resources, State Historic Preservation Office (NC SHPO)
  - N.C. Department of Environment and Natural Resources (NCDENR)
    - Division of Air Quality (DAQ)
    - Division of Energy, Mineral and Land Resources, Land Quality & Stormwater Section (DEMLR-LQ & SW)
    - Division of Waste Management, UST Section (DWM-UST)
    - Division of Water Resources, Public Water Supply Section (DWR-PWS)
    - Division of Water Resources, Water Quality Regional Operations Section (DWR-WQROS)
    - N.C. Wildlife Resources Commission (NCWRC)
  - N.C. Department of Environment and Natural Resources, Legislative Affairs
  - N.C. Department of Public Safety (NCDPS), Division of Emergency Management (DEM), Floodplain Management Program
  - N.C. Department of Transportation (NCDOT), Statewide Planning Branch

A copy of the Draft Supplemental EA was provided to the agencies for review and comment. Agency comments are included in **Appendix A** and summarized below.

The USEPA concluded that appropriate alternatives for airport improvement were considered, analyzed, and supportive of SVH requirements to enhance the efficiency and operational safety of the Airport runway system. They indicated that the proposed action is technically and economically feasible and appears that it will not have a significant impact on human health and the environment. Further, the USEPA indicated that SVH should continue discussions with the USACE to determine the appropriate quantity of compensatory mitigation credits needed, but that they have no additional concerns at this time.

The NCDEQ recommended that the Sedimentation Pollution Control Act of 1973 be addressed for any land disturbing activity, an erosion and sedimentation control plan be followed if more than one acre is to be disturbed, and the proper regional office be notified if an "orphan" underground storage tank is discovered during any excavation operations.

The NCWRC recommended the following measures: minimizing streams and wetland impacts, maintaining a minimum 100-foot undisturbed, native, forested buffer along each side of intermittent streams and wetlands, avoiding tree clearing activities during maternity roosting season, pre-treating the project site prior to construction to manage non-native invasive species, designing culverts to provide for aquatic life passage, and implementing biodegradable/wildlife friendly sediment and erosion control devices where possible.

The NC DWM, Inactive Hazardous Sites Branch identified no sites under its jurisdiction. The NC DWM, Solid Waste Section indicated that no adverse impact on the surrounding community had been identified and it was recommended that, during project completion, every feasible effort should be made to minimize the generation of waste, to recycle materials, and to use recycled products where suitable.

Although the NCDOT Statewide Planning office responded No Comment during NC state clearinghouse review of the Draft Supplemental EA, coordination with NCDOT District 12 personnel and the City of Statesville Public Works Department regarding the proposed closure of a portion of Bethlehem Road has been initiated.

4.2 PUBLIC INVOLVEMENT

The Draft Supplemental EA was available for 30 days for review and comment by the public on the City of Statesville's Airport website[24] and by request. Notice of the availability of the Draft Supplemental EA and details regarding the June 18, 2020, virtual and in-person public meetings were advertised in the *Statesville Record & Landmark* newspaper on May 31, 2020. The meeting was held on Thursday, June 18, 2020, from 5:00 p.m. to 7:00 p.m., in Statesville Regional Airport's conference room, 238 Airport Road in Statesville, NC. No one requested participation in the virtual meeting. Nine property owners that would be impacted by proposed avigation easement or fee-simple property acquisition were invited to attend the public meeting at 4:00 p.m.

The public meeting was held in an open-house format. Participants were greeted at the conference room door, checked in at a sign-in table, and directed to the project display boards, which were manned by members of the design team. Participants received handouts with project details (refer to **Appendix F**) and a comment card to provide feedback. Participants were able to review the proposed project plans and ask questions of the project design team members at the meeting. No formal presentation was made to the public. A comment card box was available, and attendees were encouraged to provide their comments by the deadline of June 30, 2020.

The public meeting was attended by 86 residents and a total of 32 written comments were provided at the meeting or during the 30-day comment period. Copies of the sign-in sheets and the comments received, as well as a comment summary matrix, are included in **Appendix F**. Concerns raised by area residents at the public meeting include:

[24] City of Statesville, NC, https://www.statesvillenc.net/departments/airport/projects_improvements

- Increased emergency response times for fire, EMS, and police due to closure of Bethlehem Road
    a. Fire responders would come from 2136 Old Mountain Road and would not be impacted by the road closure
    b. EMS and Iredell County sheriff are located to northeast in Statesville and would have an approximate 2- to 3-minute increase in response time (measured to/from entrance to Landings subdivision to intersection of US and Bethlehem/Stamey Farm Road; based on Google maps and actual drive times [June 18, 2020, at approximately 2:00 p.m.])
- Future flooding/closure of Bethlehem Road at Back Creek

  The southern portion of Bethlehem Road was temporarily closed when the Back Creek culvert washed out in October 2018 following Hurricane Michael. If the northern portion of Bethlehem Road were closed permanently for Runway 10 RSA improvements, and the road washed out at Back Creek, residents in the Landings subdivision and the adjacent area would lose access to/from their homes.

    a. NCDOT provided information on the replacement culvert (**Appendix A**)
    b. In accordance with NCDOT requirements for state roads outside of a FEMA flood zone, the replacement culvert was designed for the 25-year storm
    c. New culvert is an improvement over the previous culvert and provides an increased opening area and capacity
- Traffic congestion at Celeste Henkel Elementary School

  The 580-student school is located on Old Mountain Road near the intersection with Bethlehem Road. If the northern portion of Bethlehem Road were closed permanently for Runway 10 RSA improvements, residents to the south would no longer be able to travel north on Bethlehem Road during peak school traffic times.
    a. Peak school traffic times occur from 7:00a.m. - 7:45 a.m. and 2:00 p.m. - 3:00p.m.
- Traffic Congestion and Road Safety Concerns

  Closure of the northern portion of Bethlehem Road for the Runway 10 RSA improvements would force all residents to the south, to instead travel through the stop sign-controlled intersection of Bethlehem Road and Old Mountain Road and the stop light at the intersection of US 70 and Old Mountain Road. Residents commented on safety concerns at both intersections and noted that traffic currently backs up (westbound) on Old Mountain Road at the stop light during peak school traffic times and on US 70 (south) waiting to make left turns (east) onto Old Mountain Road.
    a. NCDOT traffic count station is located on north Bethlehem Road, between US 70 and W. Aviation Drive; 2018 ADT count is 910 vehicles and a portion of that would consist of vehicles traveling to/from the airport and businesses on W. Aviation Drive (approximately 145 employees), with the remainder consisting of through traffic and residents south of SVH

b. NCDOT ArcGIS mapping identifies the 13.13-mile Old Mountain Road as a "Top 25 Secondary Road Ranked by Total Crashes by County"

- Increased Stormwater runoff from the Airport
    a. The proposed project would not add any impervious surfaces at SVH and will meet all NCDEQ water quality permitting requirements, as well as US Army Corps of Engineers Clean Water Act Section 404 Individual Permit requirements
    b. The Airport has addressed previous property owner complaints regarding stormwater runoff and is currently working to address drainage issues associated with the recent construction of the east portion of Taxiway B
- Concern over timing/construction of proposed "South Road" (connection to Old Mountain Road vs. "West Road" (connection to US 70), and consideration of a tunnel to maintain access via Bethlehem Road
    a. West Road: 2017 EA evaluated several projects included in the Runway 10-28 Safety Enhancements Program at SVH, including a western connection from Bethlehem Road to US 70
        i. The City, which has adopted the SVH Airport Layout Plan, will adhere to this development plan, and supports the proposed future improvements at the Airport, including new vehicle road access to US 70 to the west.
    b. South Road: U-6153 is a locally administered project by the City of Statesville that has been delayed by NCDOT due to financial constraints.
        i. South Road would connect Hangar Drive and Bethlehem Road to Old Mountain Road
        ii. South Road would provide Bethlehem Road with a second outlet and emergency access if the culvert near Back Creek were to wash out again
    c. Tunnel under Runway 10 RSA
        i. Comments were received requesting consideration of a tunnel constructed under the proposed Runway 10 RSA to provide continued Bethlehem Road access to/from the north
            1. In accordance with the Airport's plan for future development as depicted on the 2018 Airport Layout Plan and included in the 2017 EA, extension of the south parallel taxiway (Taxiway B) would necessitate closure of an additional section of Bethlehem Road
            2. Construction of a tunnel would not be financially feasible; costing 5 to 7 times the amount of a west roadway connecting to US 70

SECTION 5: PERMITTING, MITIGATION, ENVIRONMENTAL COMMITMENTS

5.1 APPLICABLE PERMITS AND MITIGATION

All permits required by federal, state, and local laws and regulations would be obtained prior to construction. The following environmental permits and/or certifications from both state and federal regulatory agencies are anticipated:

- *Clean Water Act* Section 404 Individual Permit
- *Clean Water Act* Section 401 Water Quality Certification
- Sediment and Erosion Control Plan for greater than one acre of land disturbance
- NPDES Construction Stormwater Permit NCG010000
- Phase II Stormwater Permit (post construction)

Although the Section 404 permit will have associated mandatory mitigation, the amount of the required mitigation has not yet been finalized. Mitigation for intermittent stream impacts at a ratio of 1:1, perennial stream impacts at a ratio of 2:1, and wetland impacts at a ratio of 2:1 has been proposed as part of the Section 404 permit that is currently under review. It is anticipated that the mitigation requirements for the Proposed Action would be met through the purchase of credits from the NCDEQ-DMS in-lieu fee program. The NCDEQ-DMS has confirmed that the required mitigation credits for compensatory mitigation of Warm Stream and Riparian Wetland impacts within 8-digit HUC 03040102 of the Yadkin Basin are now available (refer to **Appendix E**).

5.2 ENVIRONMENTAL PROJECT COMMITMENTS

The following is a list of project commitments made in the 2017 EA and affirmed in this Supplemental EA:

- It is anticipated that four residential parcels will be acquired for control of the RPZ, with these purchases negotiated during future project phases. Coordination with these property owners is currently being initiated. Relocation, if required, will be conducted in accordance with the *Uniform Relocation Assistance and Real Property acquisition Policies Act of 1970*, as amended (refer to pages 60, 63, and 80). Relocation resources will be available to all relocates without discrimination.
- The NAAQS pollutant standards will be reviewed prior to construction to ensure that the study area is still in attainment.

- Mitigation banks serving HUC 03040102 were contacted regarding availability of in-kind mitigation prior to initiating participation in the NCEEP in lieu program. The NCDEQ DMS has confirmed that they will accept payment for mitigation of impacts from the Proposed Action (**Appendix E**).
- City of Statesville or contractor shall obtain all permits required by Federal, state, and local laws and regulations.
- The contractor will implement Best Management Practices to mitigate and minimize potential temporary impacts from construction, including the following:
  - Construction equipment will be maintained in a satisfactory condition to meet minimum exhaust emission standards.
  - The contractor will comply with applicable federal, state, county, and other local air pollution regulations during the construction of the project.
  - To reduce dust and minimize the construction air "footprint" of the Selected Alternative, the contractor will implement typical BMPs that could include: reducing equipment idling times; using cleaner burning or low emissions fuel in construction equipment; limiting construction activities during high wind periods to minimize dust generation or when atmospheric conditions are conducive for ozone formation; regularly applying water or dust suppressants to unpaved areas; reducing vehicle speeds on unpaved roads on the Airport property; and covering materials stockpiles.
  - To minimize noise impacts during construction, work would typically occur between 7:00 A.M. and 5:00 P.M., when people are more often away from their homes and would be less disturbed than by construction activities conducted at night.
  - BMPs would be implemented to minimize impacts to water quality and wetlands. These may include installation of standard erosion and siltation control devices such as temporary seeding, diversion berms, slope drains, sediment traps, sediment barriers, as well as straw bales and rock check dams.
  - An erosion and sedimentation control plan that includes the use of construction controls to prevent degradation of water quality and associated impacts on aquatic ecology shall be approved by the NCDENR Division of Land Resources and shall be implemented during construction.
  - A SPCC Plan will be developed to address potential impacts from construction activities, such as accidental releases of fuel or hydraulic fluids from machinery.

- Construction activity shall conform to requirements of FAA Advisory Circular 150/5370-10A, *Standards for Specifying Construction of Airports* and FAA Advisory Circular 150/5200-33 *Hazardous Wildlife Attractants on or Near Airports*.