Watertown International Airport

Draft
Environmental Assessment
Land Acquisition & Obstruction Removal Project

Prepared for

Jefferson County
22529 Airport Drive
Dexter, NY 13634

WATERTOWN INTERNATIONAL AIRPORT

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

Responsible FAA Official

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Date

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LIST OF ACRONYMS

	Acronyms	*Names*
A	AC	Advisory Circulars
	ACS	American Community Survey
	ALP	Airport Layout Plan
	ART	Watertown International Airport
C	CAA	Clean Air Act
	CBRS	Coastal Barrier Resource System
	CEQ	Council on Environmental Quality
	CESQG	Conditionally Exempt Small Quantity Generators
	CFR	Code of Federal Regulations
	CH_4	Methane
	CMP	Coastal Management Plan
	CO	Carbon Monoxide
	CO_2	Carbon Dioxide
	CRIS	Cultural Resources Information System
	CWA	Clean Water Act
E	EA	Environmental Assessment
	ECL	Environmental Conservation Law
	EIS	Environmental Impact Statement
	EO	Executive Order
	ERRs	Environmental Radius Reports
	ESA	Endangered Species Act
F	FAA	Federal Aviation Administration
	FAR	Federal Aviation Regulation
	FEIS	Final Environmental Impact Statement
	FIRM	Flood Insurance Rate Map
	FONSI	Finding of No Significant Impact
	FPPA	Farmland Protection Policy Act
	FWW	Freshwater Wetland
G	GHG	Greenhouse gas
	GIS	Geographic Information System
H	HFCs	Hydrofluorocarbons
I	IDA	Industrial Development Agency
	IBat	Indiana Bats
	INM	Integrated Noise Model
	IPaC	Information, Planning, and Consultation
	ISR	Indirect Source Review

	Acronyms	*Names*
L	LOS	Line of Sight
M	MALSR	Medium Intensity Approach Lighting System with Runway Alignment Indicator Lights
	MIRLs	Medium-intensity Runway Lights
	MITL	Medium Intensity Taxiway Lights
	MJ	McFarland-Johnson, Inc.
	MPU	Master Plan Update
	MSGP	Multi-Sector General Permit for Stormwater Discharges Associated with Industrial Activity
N	NAAQS	National Ambient Air Quality Standards
	NEPA	National Environmental Policy Act
	NHPA	National Historic Preservation Act
	NLEB	Northern long-eared bat
	NO_2	Nitrogen Dioxide
	N_2O	Nitrous Oxide
	NOI	Notice of Intent
	NOTAMs	Notices to Airmen
	NPDES	National Pollutant Discharge System
	NPIAS	National Plan of Integrated Airport Systems
	NRCS	Natural Resource Conservation Service
	NRHP	National Register of Historic Places
	NWI	National Wetlands Inventory
	NYCRR	New York Codes, Rules and Regulations
	NYNHP	New York Natural Heritage Program
	NYPAD	New York Protected Areas Database
	NYS	New York State
	NYSDEC	NYS Department of Environmental Conservation
	NYSDOT	NYS Department of Transportation
O	O_3	Ozone
	OCS	Obstacle Clearance Surface
	OPRHP	Office of Parks, Recreation and Historic Preservation
	OSHA	Occupational Safety and Health Administration
P	PAF	Public Archaeological Facility
	PAPI	Precision Approach Path Indicator
	Part 77	Federal Regulation Title 14 Part 77
	Pb	Lead
	PFCs	Perfluorocarbons
	PM	Particulate Matter
R	RAIL	Runway Alignment Indicator Light

	Acronyms	Names
	RCRA	Resource Conservation and Recovery Act
	REIL	Runway End Identification Light
	RESS	Runway End Siting Surface
	RDS	Runway Departure Surface
	RHA	Rivers and Harbors Appropriation Act
	ROFA	Runway Object Free Area
	ROD	Record of Decision
	RPZ	Runway Protection Zone
S	SDWA	Safe Drinking Water Act
	SEQRA	New York State Environmental Quality Review Act
	SF_6	Sulfur Hexafluoride
	SHPO	State Historic Preservation Office
	SIP	State Implementation Program
	SO_2	Sulfur Dioxide
	SPCC	Spill Prevention, Control and Countermeasure
	SPDES	State Pollutant Discharge Elimination System
	SSA	Sole Source Aquifer
	SUNY	State University of New York
T	TNW	Traditional Navigable Waterways
	TSA	Transportation Security Administration
U	USACE	U.S. Army Corps of Engineers
	USDA	U.S. Department of Agriculture
	USDOT	U.S. Department of Transportation
	USEPA	U.S. Environmental Protection Agency
	USFWS	U.S. Fish and Wildlife Service
	USGS	U.S. Geological Survey
	USTs	Underground Storage Tanks
W	WMA	Wildlife Management Area
	WR	Written Reevaluation

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1. INTRODUCTION

This Environmental Assessment (EA) addresses the potential social, economic, and environmental consequences associated with the proposed land easement/acquisition and vegetation obstruction removal at the Watertown International Airport (ART or the "Airport"). The Airport is a commercial service, public-use airport, located in the town of Hounsfield, Jefferson County, New York. The Airport is owned and operated by Jefferson County and is a Federal Aviation Administration (FAA) Part 139 certified airport serving Northern New York, Southern Ontario, and the Fort Drum region.

ART lies in the northwest portion of Jefferson County, bordering the Saint Lawrence River and Lake Ontario, in an area commonly referred to as the Thousand Island Region. The Airport occupies an approximate 1,120-acre site located five miles west of the *c*ity of Watertown. The nearest community is the village of Dexter, located less than one-mile northwest of the Airport. New York State (NYS) Route 12F, an east-west *s*tate highway that lies north of ART, provides ground access. **Figure 1-1***, Location Map,* depicts the general location of the ART property over a U.S. Geological Survey (USGS) Topographic Map and **Figure 1-2**, *Aerial Image*, provides the location with an aerial image.

1.1. BACKGROUND

The Airport serves a key transportation function for the Northern Region of New York State, to connect Jefferson County, St. Lawrence County, and Oswego County to other parts of the state, country, Canada and provide access to many popular tourist destinations in the area. The ART provides scheduled service under the Essential Air Service program and is classified as non-primary commercial service airport. The Airport is included in the National Plan of Integrated Airport Systems (NPIAS), the FAA system plan for the development of public use airports in the United States. An airport must be in the NPIAS to be eligible for FAA grants.

Jefferson County completed an Airport Master Plan Update (MPU) in 2013. The MPU, prepared by Passero Associates, identified land and/or easement acquisition and obstruction removal within the following safety areas and surfaces at the Airport: Runway Object Free Area (ROFA), Runway Protection Zone (RPZ), the runway departure surface, which is a Runway End Siting Surfaces (RESS), Federal Aviation Regulation (FAR) Part 77 transitional surface, and the Medium Intensity Approach Lighting System with Runway Alignment Indicator Lights (MALSR) line of sight (LOS). Currently, FAA is funding the design of the MALSR for Runway (RW) 28. An Airport Layout Plan (ALP) was developed as part of the MPU. The ALP represents the recommended MPU development to meet projected needs and FAA design standards for the next 20 years. The FAA Advisory Circular (AC) 150/5300-13, *Airport Design*, along with FAR Part 77, provide for the continued safe, economic, and efficient use of the airport. As part of the MPU, the FAA conditionally approved the ALP in 2015. The approved ALP and FAA approval letter are provided in **Appendix A.**

According to the MPU and ALP, several tree and ground obstructions are considered penetrations to navigable airspace and are inconsistent with FAA's airport design standards.

Figure 1-1: Location Map

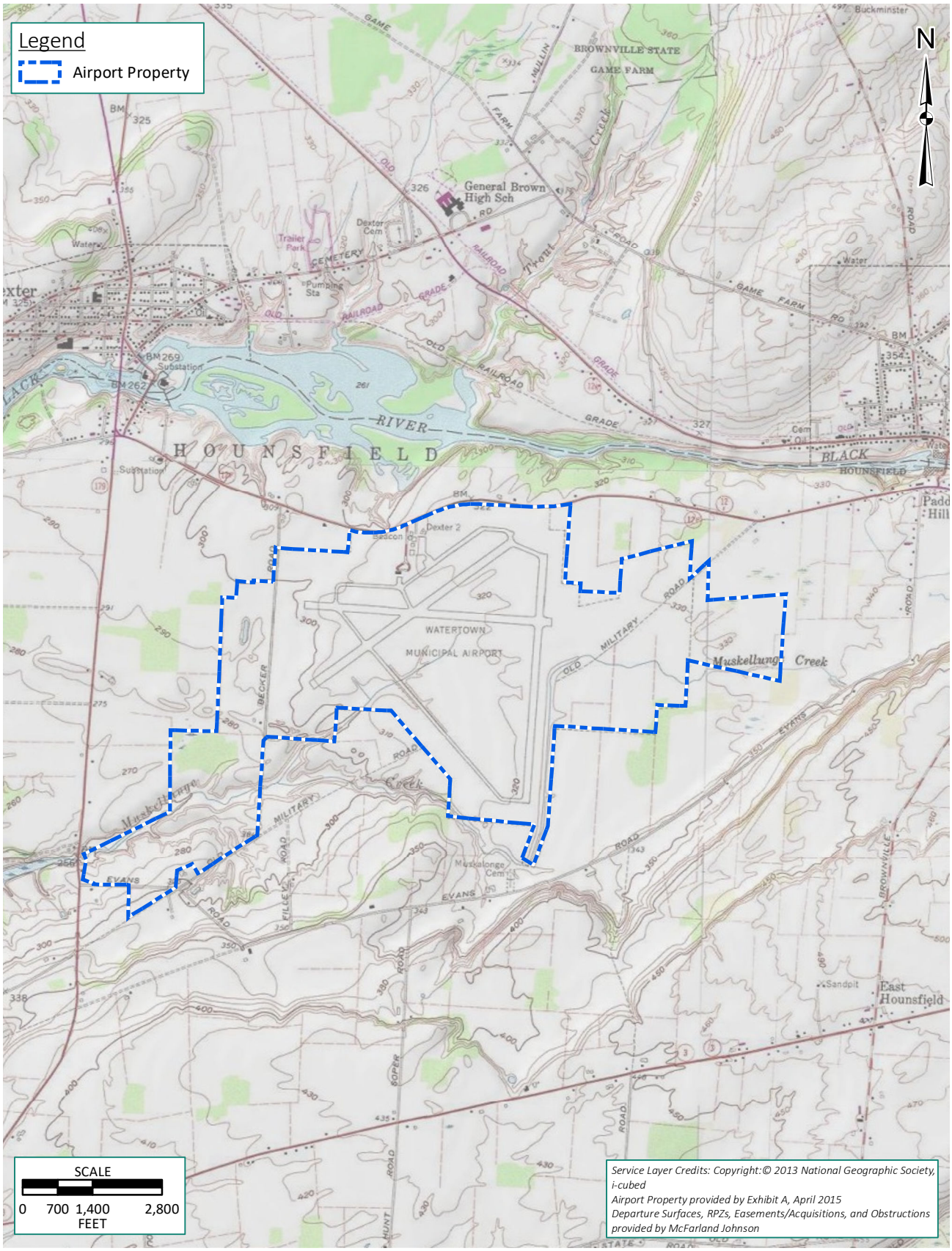

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Figure 1-2: Aerial Map

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Obstructions were identified using ground survey controlled aerial photography combined with 3D mapping of the Airport. Treetop elevations were compared to airspace surface elevations. The obstruction analysis identified approximately 31 individual tree penetrations, 54 tree group penetrations, and one ground penetration to airspace surfaces at the Airport. In addition, 25 individual trees were identified as being within ten feet of airspace surfaces (to account for tree growth).

In 2015, an EA, entitled *Final Environmental Assessment for Runway/Taxiway Extension and Terminal Area Development* (Passero Associates, July 2015), was completed for the Runway 10-28 extension project at the Airport. The 2015 EA analyzed environmental impacts of several airport development projects, including removal of tree obstructions and acquisition of avigation easements for land use control over the Runway 28 RPZ. FAA issued a Finding of No Significant Impact/Record of Decision (FONSI/ROD) approving such projects on August 25, 2015. Subsequently, two parcels where avigation easements were to be acquired became subject to legal proceedings under the New York State Eminent Domain Procedure Law. This changed the land acquisition from avigation easement to land-in-fee for 52.63 acres and 2.83 acres off the departure end of Runway 28. In addition, the County decided to acquire newly identified 5-acre property within the Runway 10 Departure Surface. To address the change in acquisition and potential impacts, a *Technical Report: Watertown International Airport Land Acquisition* (McFarland-Johnson, Inc.) was submitted to the FAA in March 2020. FAA issued a Written Reevaluation (WR) and ROD in March 2020. The WR/ROD is provided in **Appendix B.** The subject parcels are shown on the EA figures as Airport property.

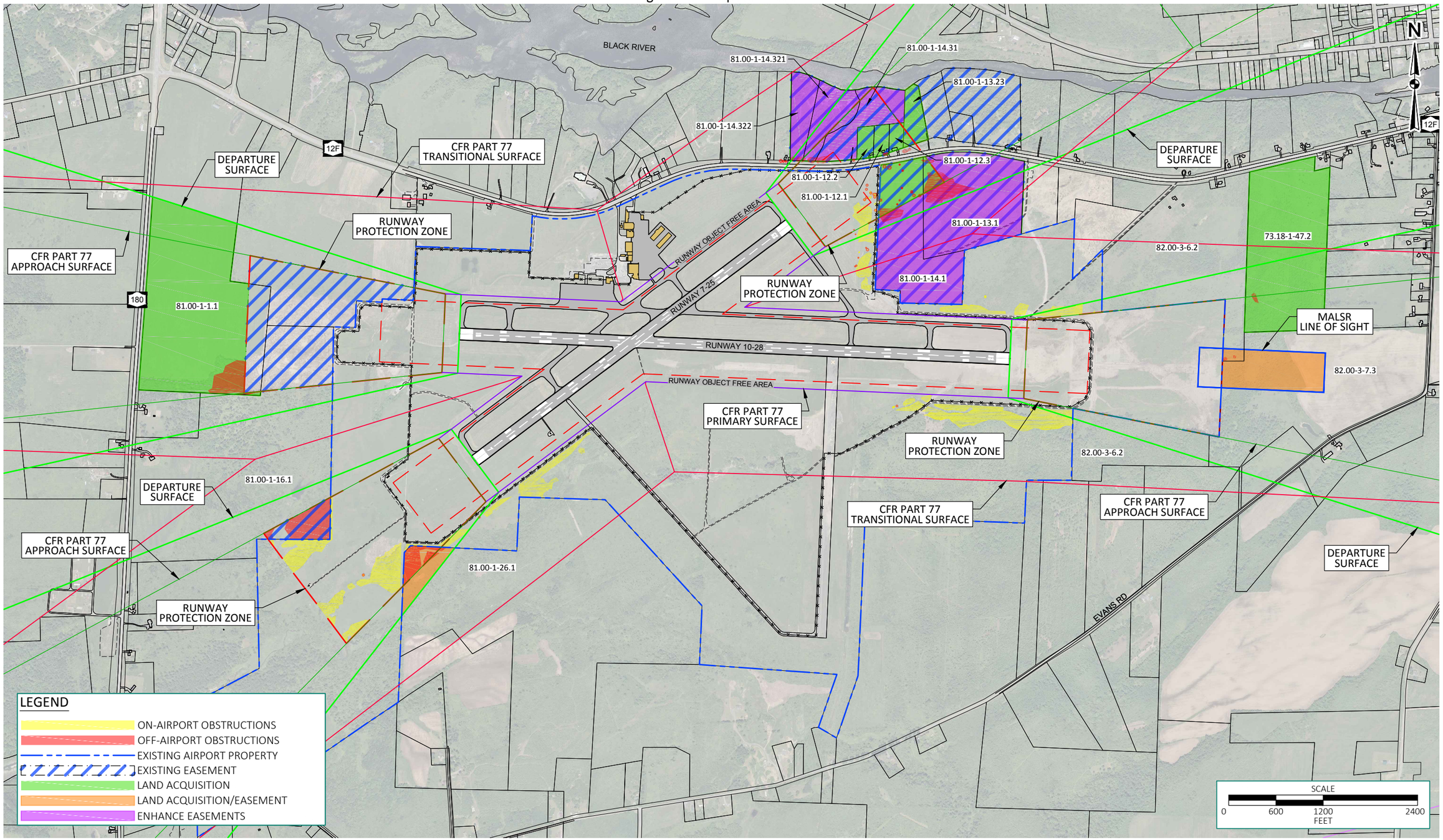
This EA document is structured to present an overview of the Proposed Action, regulatory basis and decision-making process (Chapter 1); discuss the purpose and need of the Proposed Action (Chapter 2); provide details and analysis of the alternatives (Chapter 3); describe the affected environment (Chapter 4); and evaluate the potential environmental consequences (Chapter 5). The remainder of the EA provides a summary of agency coordination and public involvement (Chapter 6) and provide a list of EA preparers (Chapter 7).

1.2. Proposed Action

An overall plan of the Proposed Action is provided below (see **Figure 1-3**). The Proposed Action consists of the following elements, which are necessary to meet the overall purpose creating unobstructed navigation for Runways 7-25 and 10-28 and land use control at the Airport:

- Removal of approximately 59.22 acres of vegetation obstructions on and off-airport property on all four runway ends, departure and/or transitional surfaces, and the MALSR line of sight
- Enhance existing easements, approximately 82.52 acres, in the RPZ on the Runway 25 end
- Acquire existing easements, approximately 17.47 acres, in the RPZ, and departure surfaces for the Runway 25 end
- Acquire easements, approximately 64.85 acres, in the departure and transitional surfaces for the Runway 28 end
- Acquire land, other than existing easements, approximately 117.34 acres, in the RPZ and departure and transitional surfaces for the Runway 7, 10, and 28 ends

Figure 1-3: Proposed Action



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A breakdown of acreages per runway and Proposed Action is provided in **Table 2-3** in Chapter 2, *Purpose and Need*. The Proposed Action is further detailed in Chapter 3, *Alternatives Analysis*.

The vegetation obstruction removal, within the RPZ and approach and departure surfaces, is proposed to comply with FAA standards by remedying airspace obstructions. In addition, the proposed land/easement acquisition and existing easement enhancement would provide the Sponsor with land use control within the Runway 10-28 and Runway 7-25 RPZ, departure and transitional surfaces. The Proposed Action would also allow the Airport to continue to serve as a positive economic engine for the community.

1.3. Regulatory Basis

Airport projects that include federal involvement require an environmental determination. Per statutory and regulatory requirements, the FAA must evaluate the environmental consequences of proposed developments shown on the approved ALP. This involves a systematic and multidisciplinary approach that verifies compliance with the requirements of the National Environmental Policy Act (NEPA).

The NEPA is a federal statute that requires federal agencies to use a systematic, interdisciplinary approach for considering the potential environmental impacts of a proposed action and factoring them into the decision-making process. The Council on Environmental Quality (CEQ) Regulations for implementing NEPA set the standards for NEPA compliance and direct federal agencies to develop their own procedures. FAA Order 1050.1F, *Policies and Procedures for Considering Environmental Impacts,* provides the FAA's agency-wide policies and procedures for ensuring compliance with NEPA and the CEQ Regulations.

State and local officials will also be given the opportunity to review this document per U.S. Department of Transportation (USDOT) Order 4600.13, Intergovernmental Review of Department of Transportation Programs and Activities. If the potential impacts identified herein do not appear to be adverse or are such that they can be mitigated to a level below established significant impact thresholds, a FONSI may be issued by the FAA. Otherwise, if the actions have been redefined to include mitigation measures necessary to reduce potentially significant impacts below significant levels, a FONSI/ROD may be necessary. Lastly, an Environmental Impact Statement (EIS) would be required when one or more environmental impacts of a Proposed Action would be significant and mitigation measures would not reduce the impact(s) below significant levels.

The EA has been prepared in accordance with FAA guidelines and is in conformance with the NEPA of 1969; the CEQ regulations stated in 40 Code of Federal Regulations (CFR) Parts 1500-1508, the FAA 1050.1F Environmental Desk Reference dated June 2015, and FAA Orders 1050.1F, and 5050.4B, *NEPA Implementing Instructions for Airport Actions,* and New York State Environmental Quality Review Act (SEQRA) Title 6 of New York Codes, Rules and Regulations (NYCRR) Part 617. NY SEQRA Environmental Assessment Form is included in **Appendix C**. Upon reviewing this document, the FAA will determine if any of the environmental or socioeconomic impacts identified herein are significant and warrant further study.

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2. PURPOSE AND NEED

The Purpose and Need statement in this NEPA document describes the deficiencies being addressed and provides solutions to the Airport needs under the Proposed Action. The statement documents the justification for the project and provides the basis for evaluating the effectiveness of alternatives.

2.1. PURPOSE

As discussed in Chapter 1, *Introduction*, Jefferson County completed a MPU which made a number of recommendations for the 20-year planning horizon to assist the Airport in meeting current FAA design and safety standards. The MPU identified acquisition and obstruction removal to provide clear approaches and object height and land use control at the Airport.

The purpose of the Project is to mitigate the identified vegetative above ground obstructions, and provide solutions such as:

- Remedy vegetative obstructions (topping or removal)
- Improve approaches, departures, and airspace for ART
- Acquisition of high-controlling avigation easement within private property and/or land acquisition of private property in order to remedy existing off-Airport obstructions
- Enhance safety areas, approaches, departures, and surfaces to all Runways 7, 10, 25, and 28
- Ensure that appropriate land use control measures are put in place to comply with FAA standards and to prevent future incompatible land use and future obstructions to airspace surrounding Runways 7-25 and 10-28
- Enhance safe operating conditions
- Comply with FAA standards and regulations

2.2. NEED

The collective need of the Proposed Action is to remediate the vegetative obstructions currently penetrating the airspace at ART. Obstructions to the designated areas, as described below, are inconsistent with FAA's airport design standards and the Airport is obligated to provide clear safety areas, departure, and transitional surfaces, and MALSR LOS. Safety areas and surfaces discussed within this chapter are shown on **Figure 1-3**, *Proposed Action*.

Departure RESS

The Departure RESS is a surface which identifies where the landing threshold of a runway should be, depending upon local obstructions and terrain. The Departure RESS extends upward and

outward from airport runways. These surfaces should not be penetrated by trees, buildings, or other objects. The Departure RESS has an Obstacle Clearance Surface (OCS) slope of 40:1. A 40:1 slope rises one unit vertically for every 40 units horizontally. The use of Departure RESS provides an acceptable level of safety while minimizing the environmental and community impact of tree removal in heavily wooded areas. Land use control over the surfaces prevents future penetrations to the surfaces and provides safe and proper clearance for departing aircraft.

Obstructions to the Departure RESS 40:1 to Runways 7, 10, 25, and 28 exist both on-airport property and off-airport property. Clearing the obstacles to the 40:1 Departure RESS slope is necessary to mitigate a safety risk and hazard to the avigation operations. Acquisition to off-airport property would be necessary in order to remedy the obstructions. **Table 2-1** provides the dimensions of the Departure RESS.

Table 2-1: Departure RESS

Runway End	Inner Width[1]	Outer Width	Length	Slope
7	1,000'	6,466'	10,200'	40:1
25	1,000'	6,466'	10,200'	40:1
10	1,000'	6,466'	10,200'	40:1
28	1,000'	6,466'	10,200'	40:1

1. Departure RESS begins at the runway end
Source: FAA AC 150/5300-13A and McFarland Johnson.

ROFA

FAA AC 150/5300-13A, *Airport Design*, identifies the ROFA as an area centered on the ground on a runway, taxiway, or taxilane centerline to enhance the safety of aircraft operations by remaining clear of objects, except for objects that need to be located there for air navigation or aircraft ground maneuvering purposes. The ROFA clearing standard requires the removal of objects protruding above the ground.

The current ROFA for Runway 7-25 and Runway 10-28 is 800 feet wide and extends 1,000 feet beyond each runway end.

RPZ

The RPZ is a large trapezoidal area off each runway end that underlies aircraft approach and departure paths. The RPZ is located 200 feet from the end of the runway and the dimensions of each RPZ for Runways 7-25 and 10-28 are shown in **Table 2-2**.

The RPZ is intended to enhance the protection of people and property on the ground. FAA AC 150/5300-13A, *Airport Design*, identifies several land uses that are incompatible with an airport's RPZ. Examples of incompatible land use include residences, schools, medical care facilities, recreational land use, places of public assembly, and hazardous material and fuel storage. In recent years, however, FAA has become increasingly interested in controlling land use within the RPZ. This interest has been reflected in recent changes in FAA policy as expressed in AC 150/5300-13A, *Airport Design*, and in an FAA Memorandum *Interim Guidance on Land Uses within a Runway Protection Zone*, dated September 27, 2012. Airport control of these areas is strongly

recommended and is achieved through airport property acquisition, easements, or zoning to control development and land use activities. The Airport sponsor is obligated to comply with grant assurances, which includes maintaining and operating their facilities safely and efficiently. Airport land use control over the RPZ would protect the RPZ from future incompatible land uses.

Table 2-2: Runway Protection Zone Dimensions

Runway End	Inner Width	Outer Width	Length
7	1,000'	1,750'	2,500'
25	1,000'	1,510'	1,700'
10	1,000'	1,750'	2,500'
28	1,000'	1,750'	2,500'

Source: FAA AC 150/5300-13A.

Transitional Surface

Federal Regulation Title 14 Part 77 (Part 77), *Safe, Efficient Use and Preservation of the Navigable Airspace* (§77.19) defines five airport imaginary surfaces with relation to an airport and to each runway as shown in **Exhibit 2-1**. The size of each imaginary surface is based on the category of each runway according to the type of approach available or planned for that runway. The purpose of these imaginary surfaces is to protect the airspace surrounding an airport from any hazards to air navigation. Each runway has the designated imaginary surfaces, one being called a transitional surface that exists primarily to prevent existing or proposed manmade objects, objects of natural growth or terrain from extending upward into navigable airspace. An airport transitional surface is a surface extending outward and upward, at right angles to the runway centerline and runway centerline extended, from the sides of the primary surface and the approach surfaces at a slope of 7 to 1 (14.3 percent). Transitional surfaces, for those portions of the precision approach surface which project through and beyond the limits of the conical surface, extend a distance of 5,000 feet measured horizontally from the edge of the approach surface and at right angles to the runway centerline. **Figure 1-3** depicts the transitional surface in relationship to the runways at ART.

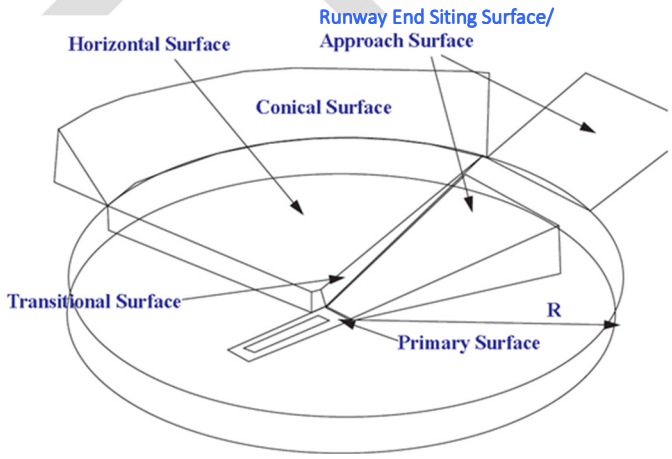

Exhibit 2-1: Airport Runway Surfaces

MALSR LOS

FAA Order 6850.2B, *Visual Guidance Lighting Systems*, details the MALSR LOS. The MALSR requires land that is 1,600 feet long by 400 feet wide of the MALSR portion, plus an additional 1,000 feet in length by 25 feet in width for the runway alignment indicator light (RAIL) portion. The minimum width of 25 feet for the RAIL portion is considered adequate for relatively clear and level terrain. For visibility, obstruction clearances, and/or access requirements, the width is increased another

100 feet to meet the requirements of the RAIL horizontal light plane. The ideal installation of the RAIL portion is that all sequence flashing lights be in a horizontal plane with no obstruction penetrating the RAIL planes. The Runway 28 end MALSR LOS at ART measures 500 feet in width by 1600' in the length. Tree obstructions are penetrating the Runway 28 MALSR LOS and require remedy to provide an obstruction free area.

Land and/or Easement Acquisition Land Use Control and Obstruction Removal

Implementation of these projects is needed in order to obtain object height and land use control and remove obstructions now present, and to prevent the growth or construction of future obstructions and/or incompatible land use. The Proposed Action will facilitate the safe operation of aircraft at the Airport now and in the future and allow the Airport to meet current demand and comply with FAA airport design standards for the existing facilities as outlined in FAA AC 150/5300-13A, *Airport Design*, and FAA Order 6850.2B, *Visual Guidance Lighting Systems*.

Throughout the EA process, the Airport Sponsor (Jefferson County) has maintained their policy for land and/or easement acquisitions consists of avoiding eminent domain unless there is a significant impact to operations or safety of the Airport. Willing sellers/landowners will be given priority for acquisition in fee or avigation easement. Prioritizing willing sellers would also avoid the potential of an unwilling landowner if ownership were to change. In instances of pre-existing land uses in RPZs, acquisition through condemnation would not be necessary. Additionally, aside from acquisition in fee and avigation easement, a one-time access to remove (either complete removal or topping) vegetation obstructions on off-airport property has been discussed with affected landowners.

As part of this EA, off-airport properties which contain airspace obstructions and/or are located in the ROFA, RPZ, Departure RESS, transitional surface, and/or MALSR LOS have been identified and landowners have been contacted to discuss the need to remove or mitigate these obstructions. Most of the impacted landowners have granted the County approval to include their property in this EA and to subsequently determine the owner's willingness to either grant an easement or sell their property. At the conclusion of this EA, the County will then proceed with the acquisition of easements or property, and with these measures in place, can then remove the obstructions on properties not already controlled by the County with existing easements.

Existing easements on the Runway 25 end are 30:1 easements based on the runway end as it was located in 1944. The existing easement commences at the physical end of the runway (whereas the exact location of the existing end was not mentioned in the easement documents) and is 500 feet in width extending out two miles (10,560 feet) to an outer width of 2,500 feet. Assuming the runway end has not moved since 1944, these dimensions are not comparable with existing approach and departure surface dimensions and, as a result, the existing easements will be enhanced based on current surface dimensions to incorporate additional areas (in instances where the new surfaces are wider), and a shallower slope at 40:1. Further, the easements do not preclude specific land uses within the RPZ. FAA guidance and allowable uses in the RPZ were updated in 2012 and preclude most land uses, excluding some agricultural uses, within the RPZ. As a result, in areas where the RPZ will not be acquired in fee and become airport property, areas within the RPZ will include land use restrictions that will adhere to the requirements identified in

AC 150/5300-13A, Change 1, and the Interim Guidance on Land Uses within the Runway Protection Zone.

The ROFA obstructions are located on Airport property. All four RPZs have portions not controlled (i.e. ownership in fee/avigation easement) by the Airport. All four of the Departure RESSs are penetrated by trees on properties not controlled by the Airport. Runways 7 and 28 have penetrations within the transitional surface, with the Runway 28 obstructions located off-Airport property. The Runway 28 MALSR LOS has tree obstructions located off-Airport property. The following **Table 2-3** provides a description of the Proposed Action detailing the obstruction removal acreage, land acquisition and/or easement acreage by property, property location, FAA dimensions and surfaces.

2.3. SUMMARY

Without the proper obstacle clearance areas and/or surfaces, it is difficult for ART to adequately serve the aviation operations at the Airport. Land use control over the surfaces will prevent future penetrations to the surfaces and provide safe and proper clearance for landing and departing aircraft. Removal of the obstructions will greatly improve safety to Airport users.

The Proposed Action is deemed necessary for the purpose of addressing the established needs of ART which include achieving compliance with FAA, New York State Department of Transportation (NYSDOT) Aviation Bureau engineering design standards and guidelines by addressing identified obstructions, as well as enhancing facility and operational safety and security. Upon completion, the projects would achieve the stated goals and would serve to position ART to meet the existing and future aviation service needs for the Jefferson County region. By following the process outlines in FAA Order 5050.4B and Order 1050.1F, it is anticipated that the facility would continue to develop without compromising the integrity of the surrounding environment.

Table 2-3: Proposed Action Breakdown

Runway Approach	Parcel ID	Property Location	FAA Surface Category/ Dimensional Standards	Land Use Control Type & Acreage	Obstruction Removal (Acres)
7	81.00-1-16.1	Off-Airport	RPZ/Departure	---	5.11
7	81.00-1-26.1	Off-Airport	RPZ/Departure	Land Acquisition (6.53[1])	2.41
7	81.11-1-15.1 (County)	On-Airport	RPZ/Departure/Transitional	---	15.25
Total RW 7			Obstruction	---	22.77 AC
			Land Acquisition	6.53 AC	---
			Easement Acquisition	---	---
			Easement Enhancement	---	---
25	81.00-1-14.322	Off-Airport	RPZ/Departure/Transitional	Existing Easement Enhancement (5.6)	0.15
25	81.00-1-14.321	Off-Airport	RPZ/Departure/Transitional	Existing Easement Enhancement (9.9)	0.14
25	81.00-1-14.31	Off-Airport	RPZ/Departure	Existing Easement Enhancement (11.63)	0.24
25	81.00-1-12.1	Off-Airport	RPZ/Departure	Land Acquisition (1.64[2])	0.04
25	81.00-1-12.2	Off-Airport	RPZ/Departure	Land Acquisition (2.0[2])	N/A
25	81.00-1-12.3	Off-Airport	RPZ/Departure	Land Acquisition (1.4[2])	N/A
25	81.00-1-13.23	Off-Airport	RPZ/Departure	Land Acquisition (4.4[2])	N/A
25	81.00-1-13.1	Off-Airport	RPZ/Departure/Transitional	Land Acquisition (0.92[1,2]) Existing Easement Enhancement (32.57)	3.38
25	81.00-1-14.1	Off-Airport	RPZ/Departure/Transitional	Land Acquisition (7.11[1,2]) Existing Easement Enhancement (22.82)	1.07
25	NYSDOT Right-of-Way	Off-Airport	Departure/Transitional	---	0.18

25	81.11-1-15.1 (County)	On-Airport	RPZ/ROFA/Departure/Transitional	---	3.67
Total RW 25			Obstruction	---	8.87 AC
			Land Acquisition	17.47 AC	---
			Easement Acquisition	---	---
			Easement Enhancement	82.52 AC	---
10	81.00-1-1.1	Off-Airport	Departure	Land Acquisition (65.30[1])	3.32
Total RW 10			Obstruction	---	3.32 AC
			Land Acquisition	65.30 AC	---
			Easement Acquisition	---	---
			Easement Enhancement	---	---
28	82.00-3-6.2	Off-Airport	MALSR LOS	Easement Acquisition (0.96)	0
28	82.00-3-7.3	Off-Airport	MALSR LOS	Easement Acquisition (13.99)	---
28	73.18-1-47.2-701	Off-Airport	Departure/Transitional	Land Acquisition (49.9[1])	0.14
28	81.11-1-15.1 (County)	On-Airport	Departure/Transitional/MALSR	---	16.48
Total RW 28			Obstruction	---	16.97 AC
			Land Acquisition	49.9 AC	---
			Easement Acquisition	14.95 AC	---
			Easement Enhancement	---	---
Overall Total			Obstruction	---	51.93 AC
			Land Acquisition	139.2 AC[2]	---
			Easement Acquisition	14.95 AC	---
			Easement Enhancement	82.52 AC	---
Total Off-Airport Landowners					13
Total Off-Airport Parcels					15

Source: McFarland-Johnson, Inc., Jefferson County, and town of Hounsfield Assessor

[1] Acreage includes a portion of the tax parcel.

[2] Proposed land acquisition of existing easements totals approximately 17.47 acres and is included in the *Land Acquisition* total above.

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3. ALTERNATIVES

3.1. INTRODUCTION

This chapter details the alternatives considered and the evaluation process to identify alternatives that meet the purpose and need of the Airport, according to Order 1050.F, Section 6-2.1(d) The alternatives discussed must be options that FAA will consider. The number of alternatives considered relates directly to the magnitude of the proposed project and the agency experience with the environmental issues involved. Usually, the greater the degree of impacts, more alternative options are considered. Alternatives are evaluated and an explanation must be provided if the alternative is eliminated from further study. The alternatives will be evaluated based upon the criteria as described below. The evaluation criteria were used to help the sponsor identify its Proposed Action.

This section presents a comparative analysis of the No Action alternative and the Proposed Action, to fulfill the purpose and need for the action. The alternatives include the following:

- Acquisition and Obstruction Removal Alternative 1 - No Action
  - Airport property and Airport easements remain the same as they are currently, and obstructions remain.

- Acquisition and Obstruction Removal Alternative 2 – Action (Preferred Alternative)
  - Acquire land/easements to meet FAA design standards and provide control over Airport safety areas and surfaces and remove obstructions.

3.2. EVALUATION CRITERIA

Factors considered in the development and evaluations of the alternatives are purpose and need, land use/community compatibility, operational efficiency, and FAA design standards. The feasibility of each of the alternatives is evaluated based upon how well they would meet these criteria as described below.

1. Purpose and Need: Would the alternative fulfill the purpose and needs?

2. Land Use/Community Compatibility: Would the alternative require property acquisitions? Is the alternative consistent with land use? Is the alternative compatible with the surrounding community? Is this alternative likely to meet community acceptance? Does the alternative affect off-airport properties?

3. Operational Efficiency: Would the alternative expedite movement of aircraft to and from the airfield facilities, and provide an attractive airport with minimal delays and all-weather access?

4. FAA Design Standards: Would the alternative meet FAA design standards?

Since the Airport is obligated to comply with FAA design standards and the existing obstructions are inconsistent with those standards, costs were determined not to be a discriminating factor and will therefore not play a role in the evaluation of the alternatives.

3.3. OBSTRUCTION REMOVAL ALTERNATIVE 1 - NO ACTION

Under the No Action Alternative, existing obstructions to the 40:1 Departure RESS, ROFA, RPZ, transitional surface, and MALSR LOS would continue to obstruct the airspace. The existing conditions depicting the obstructions to the runways are shown on **Figure 3-1**.

If obstructions cannot be removed, there are several options, including prohibition of night operations or an increase in approach weather minimums (cloud height and visibility requirements), in the case of an existing instrument approach, and displacement of the runway thresholds[1] to provide a clear approach and thus reducing the overall runway length for landing. In accordance with the FAA AC 150/5300-13A, *Airport Design*, displacement of a runway threshold (reducing overall runway landing length), may be required when an object that obstructs the airspace required for landing is beyond the Airport owner's power to remove, relocate, or lower. Displacement of a runway threshold impacts the airport design and limits the operational use of the runway, by reducing landing length. The reduction in landing length would result in operational impacts, especially during wet or snow/ice conditions and would inhibit the ability of the Airport to accommodate existing traffic. It is crucial to maintain the visual and instrument approaches and not limit the operational utility of the runways. **Figure 3-2** illustrates the No Action impact to displacing runway thresholds if obstructions are not addressed.

The No Action Alternative maintains all obstructions within the stated surfaces and does not involve any action to remedy the obstacles to provide a clear air operational area at ART. On and off-airport property obstructions remain the same for the No Action Alternative. Alternative 1 was assessed against the four evaluation factors with the following results:

1. **Purpose and Need:** Alternative 1 would not meet the existing or future needs of the Airport, as it fails to provide land use control of all Airport safety areas and would not remove existing obstructions to the Departure RESS, ROFA, RPZ, transitional surface, and MALSR LOS.

2. **Land Use/Community Compatibility:** Existing patterns of land use would remain both on- and off-airport property, therefore there would be no community impacts. However, the Airport owner, Jefferson County, would not have land use control over portions of the RPZ and airspace, and therefore, future incompatible land use and future obstructions to ART's safety areas and surrounding airspace could occur. Incompatible land use

3. **Operational Efficiency:** There would be no changes to operational flexibility provided with this alternative. This alternative would negatively affect operational flexibility if airspace

[1] Threshold is the beginning of that portion of the runway available for landing. It is located to provide proper clearance for landing aircraft over existing obstacles on approach to landing.

Figure 3-1: ALTERNATIVE 1 - NO ACTION

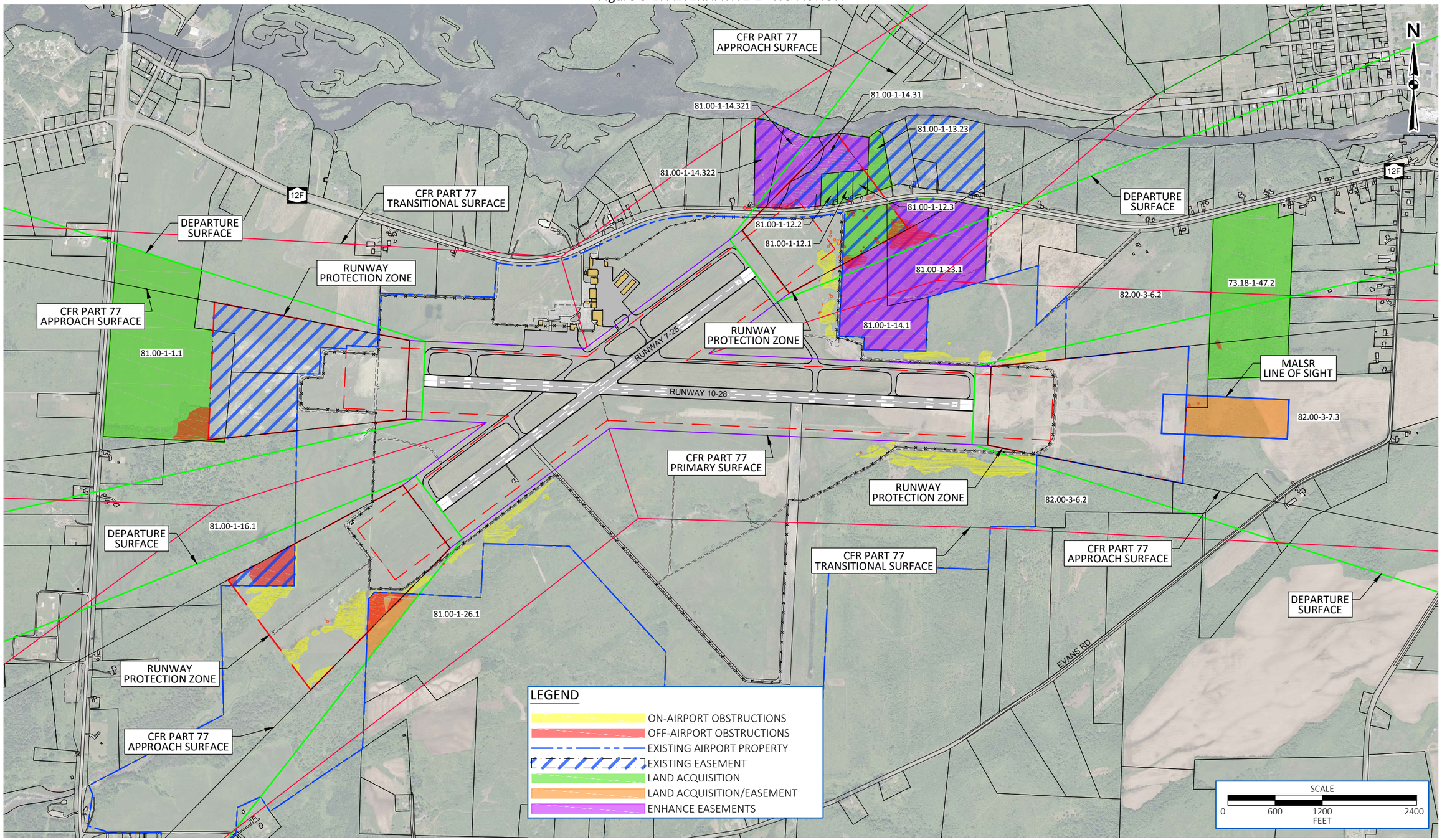

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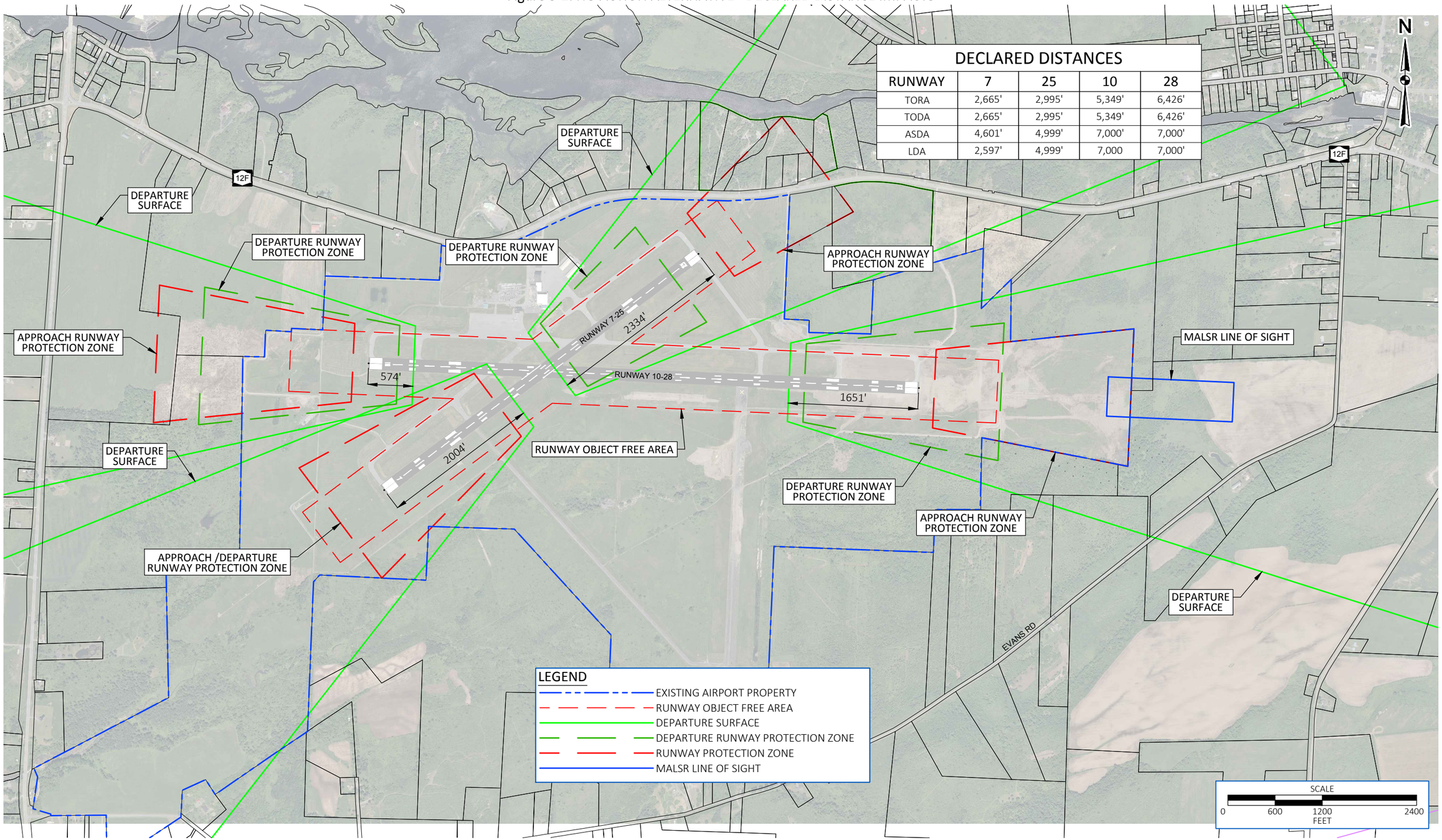
Figure 3-2: NO ACTION ALTERNATIVE - DECLARED DISTANCE IMPACTS



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obstructions remained and contributed to loss of operational use of the runways. Potential loss of night-time approaches and displaced thresholds would create operational constraints at ART.

4. **FAA Design Standards:** Under the No Action alternative, the Airport would not mitigate the obstructions within several of the surfaces; obstructions would remain within the approach and departure surfaces. According to FAA AC 150/5300-13A, *Airport Design,* it is recommended that existing safety areas, such as RPZs, should be owned in full or controlled through easements. This alternative would not provide recommended compliance with FAA standards since the four RPZs are not currently owned and/or controlled entirely by the Airport and have existing tree obstructions.

3.3.1 Advantage and Disadvantages

Advantages:

- No capital investment required (short-term)

Disadvantages:

- Does not meet purpose and need
- Lack of compliance with FAA standards and regulations
- Does not address existing vegetative obstructions penetrating the airspace presenting a safety risk and hazard to aviation operations
- Increased risk for aircraft accidents during takeoffs and landings with the potential to result in environmental impacts (e.g., fuel spills from accident, damage to environmentally sensitive areas, impacts to habitats of species of special concern, etc)
- Possible shortened usable runway length affecting safety margin for the pilots and adjacent landowners and public

3.4. OBSTRUCTION REMOVAL ALTERNATIVE 2 – ACTION (PREFERRED ALTERNATIVE)

This alternative includes the acquisition of land within the Airport's Departure RESS, ROFA, RPZ, transitional surface, and MALSR LOS and associated vegetation obstruction removal. Landowner coordination has occurred for affected landowners, except for one landowner (Runway 28 parcel IDs 82.00-3-6.2 and 82.00-3-7.3). At this point in the acquisition process, most landowners have determined which type of acquisition (i.e., avigation easement, in lieu-fee) they prefer. However, they understand they are not obligated based on their inclusion in this EA. Acquisition of land or easements by willing sellers would be a priority for Jefferson County. The County would not consider condemnation unless there is a critical impact to the navigation of the runways and/or operations of the Airport. All four runway ends include land and/or easement acquisition and obstruction removal. Tree obstruction removal, in upland areas, would involve cutting, removal of tree debris, and grinding or removal of stumps. Tree removal will be conducted during the winter with frozen or dry ground conditions and with low-ground pressure equipment in wetland areas to minimize ground disturbance. No earth disturbance will occur within wetlands. Additional details on tree removal within wetlands are included within **Section 5.11.2**. Prior to construction,

erosion and sedimentation controls will be installed to prevent any adverse impacts to surrounding areas. More details on preventative measures are included within Chapter 5.

Runway 7

Runway 7 acquisitions include **6.53** acres of acquisition of land and/or easement on one parcel of land and **22.77** acres of vegetation obstruction removal on two separate parcels of off-airport and on-airport property. The areas to be acquired and where obstruction removal would take place are shown in **Figure 3-3**.

Land acquisition of 6.53 acres is proposed within the southern portion of the RPZ and RESS. The Airport currently has land use control over 97 percent of the Runway 7 RPZ, which includes an existing avigation easement. The remaining three percent is proposed for land acquisition as shown on **Figure 3-3**.. Land proposed for acquisition includes vacant forested/scrub-shrub land with mowed areas presumably for recreation and hunting. Acquisitions outside the obstruction removal areas are proposed because it would provide land use control over the departure surface and the landowner expressed a willingness to sell.

The removal of vegetation obstructions on off-airport property includes a total of 5.11 acres on one existing parcel with an avigation easement on the northern portion of the Runway 7 RPZ and 2.41 acres on one proposed property acquisition as discussed above. On-airport vegetation obstruction removal within the RPZ, departure, and transitional surfaces totals approximately 15.25 acres.

Under this alternative, a portion of one parcel would be acquired to remove tree obstructions and gain land use control within the 40:1 Departure RESS to Runway 7. The land acquisition would result in Airport/County ownership or easement control of 100 percent of the RPZ. **Table 3-1** provides a breakdown of the proposed obstruction removal and acquisition.

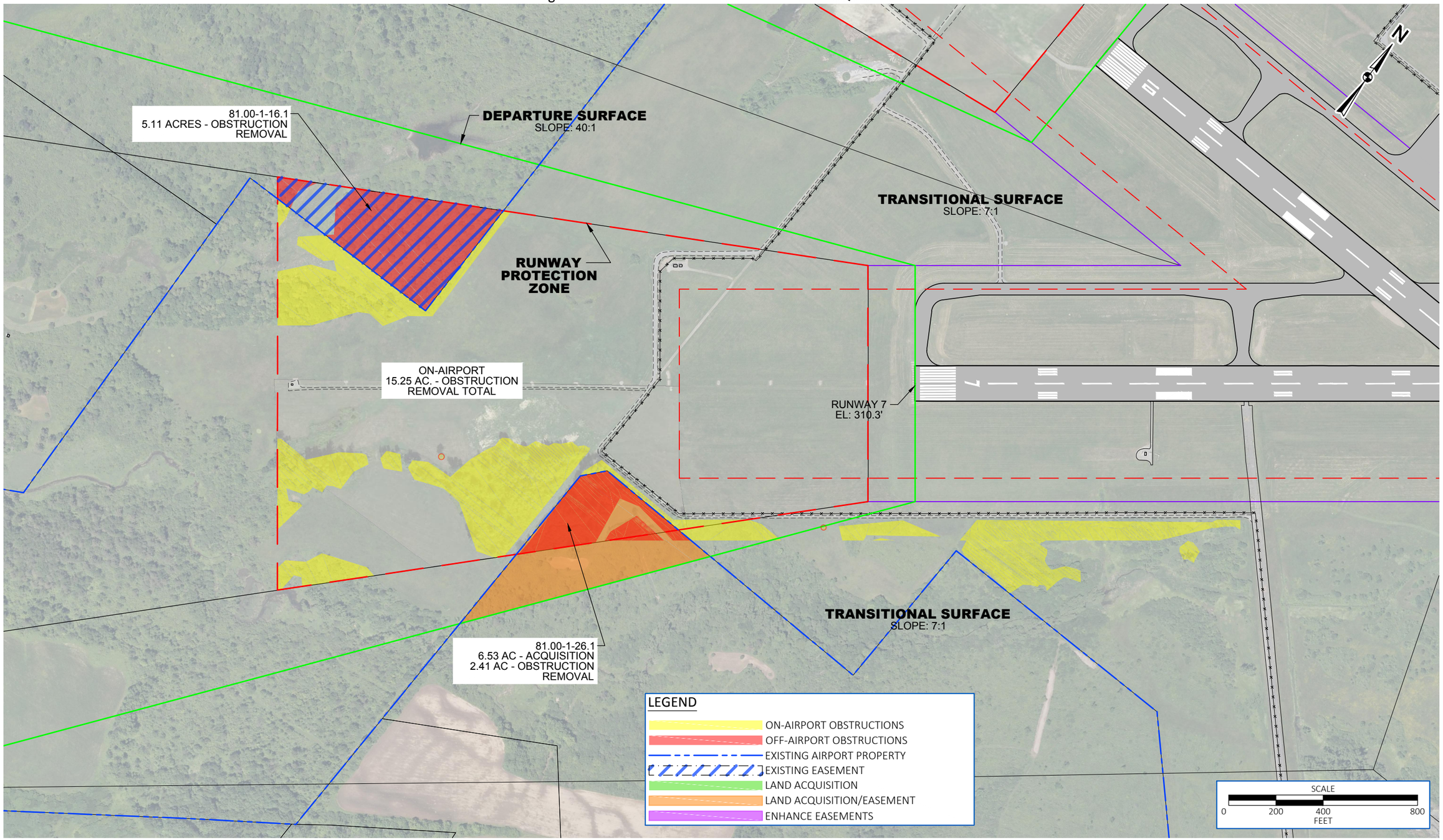
Table 3-1: **Runway 7 Proposed Action**

Parcel ID / Acreage	Property Location	FAA Surface Category/ Dimensional Standards	Proposed Land Use Control Type & Acreage	Obstruction Removal (Acres)
81.00-1-16.1 (124.31)	Off-Airport	RPZ/Departure	---	5.11
81.00-1-26.1 (169.83)	Off-Airport	RPZ/Departure	Land Acquisition (6.53[1])	2.41
81.11-1-15.1 (489.4)	On-Airport	RPZ/Departure/Transitional	---	15.25
Total RW 7		Obstruction	---	22.77
		Land Acquisition	6.53	---
		Easement Acquisition	---	---
		Easement Enhancement	---	---
Total Off-Airport Tax Parcels Affected				2
Total Off-Airport Landowners Affected				2

Source: McFarland-Johnson, Inc., Jefferson County, and town of Hounsfield Assessor

[1] *Acreage includes a portion of the tax parcel.*

Figure 3-3: ALTERNATIVE 2 - RUNWAY 7 LAND ACQUISITION



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Runway 25

Runway 25 acquisitions include **17.47** acres of acquisition of land and/or easement on six off-airport parcels (four parcels north of State Route 12F and two parcels south of State Route 12F) and existing easement enhancement of **82.52** acres on five parcels (three parcels north of State Route 12F and two parcels south of State Route 12F). In addition, **8.87** acres (included within the 17.47 total acres) of vegetation obstruction removal is proposed on six off-airport parcels, on the NYS Route 12F right-of-way, and on-airport property. The areas to be acquired and obstruction removal are shown in **Figure 3-4**.

The Airport has land use control over a majority (90 percent) of the Runway 25 RPZ and includes a mixture of County owned land and existing avigation easements on eight separate parcels of land. The remaining ten percent consists of NYS Route 12F. Proposed land acquisition of four separate parcels of land within the RPZ and departure surface would provide greater land use control.

Existing avigation easement enhancement is proposed for five separate properties located within the RPZ and departure, and transitional surfaces. As stated in Section 2.2, existing easements on the Runway 25 end were written in the 1940s for a 30:1 departure surface and do not reflect current conditions. Existing easement enhancement would involve writing/rewriting the easements to reflect current Airport operations and airspace surfaces.

The removal of vegetation obstructions would occur mostly on airport property and property owned by a single entity. The remainder would occur on four properties with existing avigation easements and within the NYS Route 12F right-of-way. **Table 3-2** provides a breakdown of the proposed obstruction removal and acquisition.

Table 3-2: **Runway 25 Proposed Action**

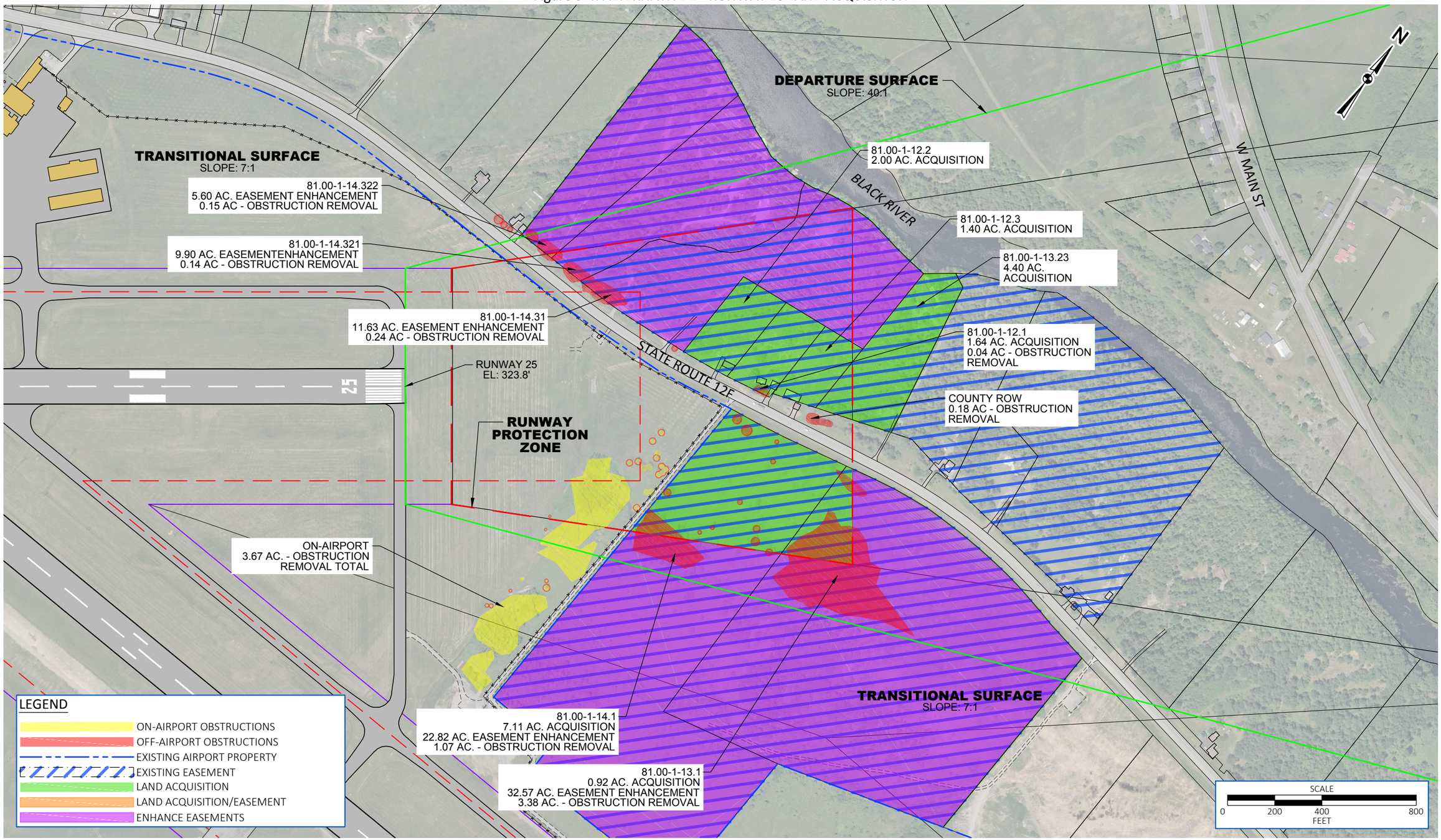
Parcel ID / Acreage	Property Location	FAA Surface Category/ Dimensional Standards	Proposed Land Use Control Type & Acreage	Obstruction Removal (Acres)
81.00-1-14.322 (5.66)	Off-Airport	RPZ/Departure/Transitional	Existing Easement Enhancement (5.6)	0.15
81.00-1-14.321 (9.9)	Off-Airport	RPZ/Departure/Transitional	Existing Easement Enhancement (9.9)	0.14
81.00-1-14.31 (11.63)	Off-Airport	RPZ/Departure	Existing Easement Enhancement (11.63)	0.24
81.00-1-12.1 (1.64)	Off-Airport	RPZ/Departure	Land Acquisition (1.64[2])	0.04
81.00-1-12.2 (2.0)	Off-Airport	RPZ/Departure	Land Acquisition (2.0[2])	N/A
81.00-1-12.3 (1.4)	Off-Airport	RPZ/Departure	Land Acquisition (1.4[2])	N/A
81.00-1-13.1 (33.49)	Off-Airport	RPZ/Departure/Transitional	Land Acquisition (0.92[1,2]) Existing Easement Enhancement (32.57)	3.38
81.00-1-14.1 (29.93)	Off-Airport	RPZ/Departure/Transitional	Land Acquisition (7.11[1,2]) Existing Easement Enhancement (22.82)	1.07
Route 12F Right-of-Way	Off-Airport	Departure/Transitional	---	0.18
81.11-1-15.1 (489.4)	On-Airport	RPZ/ROFA/Departure/ Transitional	---	3.67
Total RW 25		Obstruction	---	8.87
		Land Acquisition	17.47	---
		Easement Acquisition	---	---
		Easement Enhancement	82.52	---
Total Off-Airport Tax Parcels Affected				9
Total Off-Airport Landowners Affected				8

Source: McFarland-Johnson, Inc., Jefferson County, and town of Hounsfield Assessor

[1] Acreage includes a portion of the tax parcel.

[2] Proposed land acquisition of existing easements totals approximately 17.47 acres and is included in the Land Acquisition total above.

Figure 3-4: ALTERNATIVE 2 - RUNWAY 25 LAND ACQUISITION



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Runway 10

Proposed land acquisition for the Runway 10 end totaling **65.30** acres, would result in Airport ownership or easement control, of portions of the Runway 10 departure RESS and transitional surface. In addition, approximately **3.32** acres of vegetation obstruction removal is proposed on this property. Acquisitions outside the obstruction removal areas are proposed because it would provide land use control over the departure surface and the landowner expressed a willingness to sell. The areas to be acquired and where obstruction removal would take place are shown in **Figure 3-5.**

Land use within most of the area proposed for acquisition consists of vacant undeveloped land currently being leased for agricultural purposes with the remaining area consisting of vacant forested land. The Runway 10 RPZ is either owned by the County or the County has existing avigation easements.

There is no proposed on-airport obstruction removal on the Runway 10 end. **Table 3-3** provides a breakdown of the proposed obstruction removal and acquisition.

Table 3-3: **Runway 10 Proposed Action**

Parcel ID / Acreage	Property Location	FAA Surface Category/ Dimensional Standards	Land Use Control Type & Acreage	Obstruction Removal (Acres)
81.00-1-1.1 (127.0)	Off-Airport	Departure	Land Acquisition (65.30[1])	3.32
Total RW 10		Obstruction	---	3.32
		Land Acquisition	65.30	---
		Easement Acquisition	---	---
		Easement Enhancement	---	---
Total Off-Airport Tax Parcels Affected				1
Total Off-Airport Landowners Affected				1

Source: McFarland-Johnson, Inc., Jefferson County, and town of Hounsfield Assessor
[1] Acreage includes a portion of the tax parcel.

Runway 28

Acquisition for the Runway 28 end includes three properties with two different owners located within the MALSR LOS, and departure and transitional surfaces. Proposed off-airport land/easement acquisition for the Runway 28 end totaling **64.85** acres, would result in Airport ownership or easement control, of portions of the Runway 28 departure RESS and transitional surface. In addition, approximately **16.97** acres of vegetation obstruction removal is proposed within the MALSR LOS, departure and transition surfaces. The areas to be acquired and where obstruction removal would take place on the Runway 28 end are shown in **Figure 3-6**. Acquisitions outside the obstruction removal areas are proposed because it would provide land use control over the departure surface, transitional surface, and MALSR LOS, and the landowner expressed a willingness to sell.

The County is in the process of acquiring land (60.46 acres) through eminent domain from one landowner on the Runway 28 end. The land acquisition provides the ability to maintain safety and security of the Runway 28 RPZ and gives the County the ability to remove obstructions within the departure surface. As discussed in Section 1.1, FAA issued a WR/ROD in March 2020 (see **Appendix C**). The settlement includes land-in-fee acquisition of the 52.63-acres and 2.83-acres in the RPZ and an additional 5-acres in the departure and transitional surfaces. Following this land acquisition, the Airport would have ownership of 100 percent of the Runway 28 RPZ.

Land use on off-airport properties consists of a mixture of vacant forested, scrub-shrub, and meadow land, agriculture, and a former hobby farm. Off-airport properties are currently used for recreational purposes, such as hunting.

Table 3-4 provides a breakdown of the proposed obstruction removal and acquisition.

Table 3-4: Runway 28 Proposed Action

Parcel ID / Acreage	Property Location	FAA Surface Category/ Dimensional Standards	Land Use Control Type & Acreage	Obstruction Removal (Acres)
82.00-3-6.2 (145.3)	Off-Airport	MALSR LOS	Easement Acquisition (0.96)	0.35
82.00-3-7.3 (80.56)	Off-Airport	MALSR LOS	Easement Acquisition (13.99)	---
73.18-1-47.2-701 (57.9)	Off-Airport	Departure/Transitional	Land Acquisition (49.9[1])	0.14
81.11-1-15.1 (County)	On-Airport	Departure/Transitional/ MALSR	---	16.48
Total RW 28		Obstruction	---	16.97
		Land Acquisition	49.9	---
		Easement Acquisition	14.95	---
		Easement Enhancement	---	---
Total Off-Airport Tax Parcels Affected				3
Total Off-Airport Landowners Affected				2

Source: McFarland-Johnson, Inc., Jefferson County, and town of Hounsfield Assessor
[1] Acreage includes a portion of the tax parcel.

Figure 3-5: ALTERNATIVE 2 - RUNWAY 10 LAND ACQUISITION

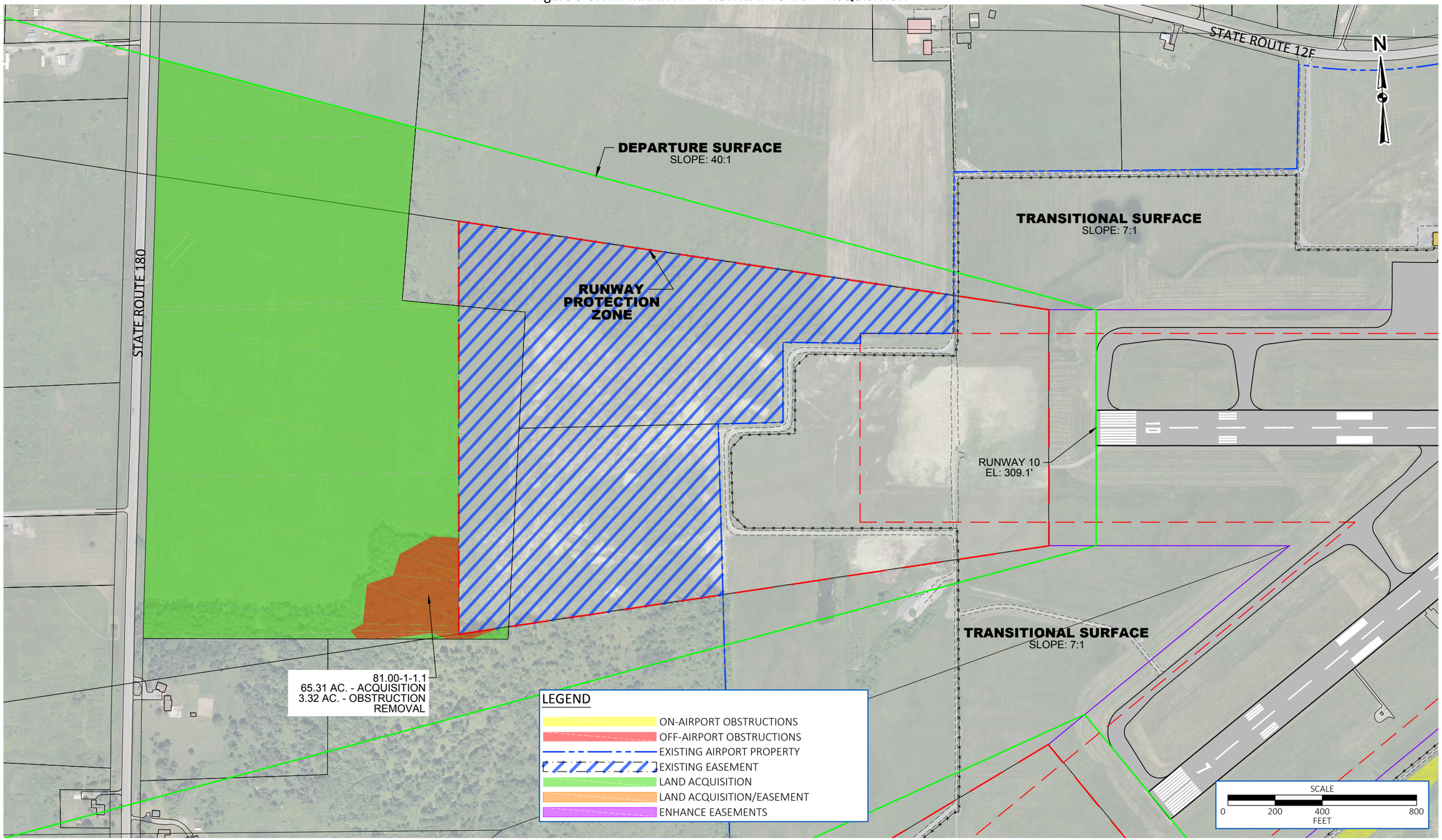

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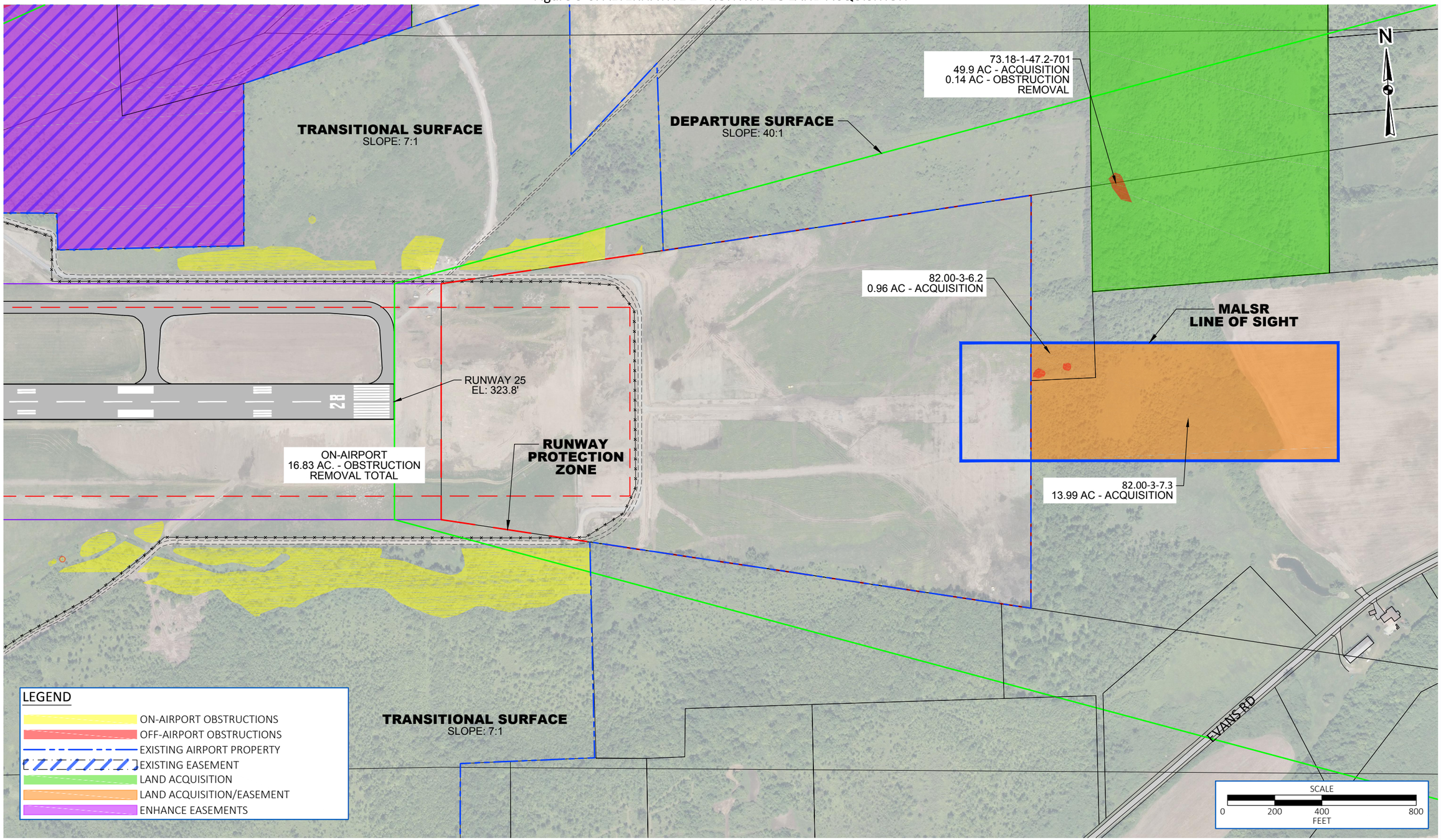
Figure 3-6: ALTERNATIVE 2 - RUNWAY 28 LAND ACQUISITION



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3.3.1 Preferred Alternative Summary

Overall, the acquisitions would provide for land use control and height control of objects in the Airport's Departure RESS, ROFA, RPZ, transitional surface, and MALSR LOS. The FAA *Interim Guidance on Land Uses Within a Runway Protection Zone* dated September 27, 2012, states that if the Airport cannot fully control land within the RPZ, it should take all possible measures to protect against incompatible land uses. There are no feasible alternatives to the action alternative. Displaced runway thresholds or any other reduction in the utility of the runways would unnecessarily hamper Airport operations and contradict the MPU documented need for acquisitions and obstruction removal.

The preferred land/easement acquisition, easement enhancement, and obstruction removal is based on coordination with landowners and Airport needs. However, the Proposed Action shown on **Figure 1-3** and discussed throughout, does not preclude landowners from negotiating a different type of method of land use control (i.e., easement acquisition instead of land acquisition) and/or obstruction removal by the County that would achieve this EAs purpose and need.

The following table provides a summary of the proposed obstruction removal and acquisition for each runway end.

Table 3-5: Summary of Acquisition, Easement Enhancement, and Obstruction Removal

Runway End	Land/Easement Acquisition (Acres)	Easement Enhancement (Acres)	Vegetation Obstruction Removal (Acres)
7	6.53	---	22.77
25	17.47	82.52	8.87
10	65.30	---	3.32
28	64.85	---	16.97
Total	154.15	82.52	51.93

Source: McFarland-Johnson, Inc.

Alternative 2 (Preferred Alternative) was evaluated as follows:

1. **Purpose and Need:** Alternative 2 would accomplish the purpose and need. The Preferred Alternative would provide all safety areas on Airport property and would remedy existing obstructions to ART's safety areas and surrounding airspace.

2. **Land Use/Community Compatibility:** Overall, current land use would remain as existing in both on and off-airport properties with the exception of the vegetation penetrating the airspace to Runway 10-28 and Runway 7-25. Proposed acquisitions have been included in this EA under the consent of the landowners. The Preferred Alternative would enhance and improve the aeronautical use of land on, and adjacent to the Airport. Alternative 2

would bring ART into compliance with FAA's recommended land control guidelines for off-airport property within safety areas.

3. **Operational Efficiency:** The obstruction removal and acquisition of safety areas would allow the Airport to improve or maintain approach and departure procedures, and therefore would increase operational flexibility.

4. **FAA Design Standards:** This alternative would improve the Airport's situation to comply with design standards through the land/easement acquisition of safety areas and removal of obstructions. Alternative 2 would remove obstructions from safety areas, airspace, and surfaces to Runways 7-25 and 10-28. Land and/or easement acquisition would provide recommended land use control, per FAA guidelines, within the RPZ.

3.3.2 Advantages and Disadvantages

Advantages:

- Meets purpose and need
- Comply with FAA standards and regulations to allow clear approach and departure paths
- Remedy existing obstructions at ART and enhance aviation operations
- Increased safety for the aviation activity and properties on the ground
- Improved airspace providing clear obstruction safety areas, airspace, and surfaces to Runways 7-25 and 10-28
- Land acquisition and avigation easements would allow the Airport to manage existing as well as future obstructions within the designated surfaces or RPZs as recommended by the FAA

Disadvantages:

- Potential environmental consequences (evaluated in Chapter 5)

3.5. OBSTRUCTION REMOVAL ALTERNATIVES SUMMARY AND CONCLUSION

The descriptions of the Obstruction Removal Alternatives have included an evaluation based on the previously noted five criteria, results of which are summarized in **Table 3-6**.

Table 3-6: **Summary of Obstruction Removal Alternatives**

Alternative	Obstruction Removal Alternative 1 (No Action)	Obstruction Removal Alternative 2 (Preferred Alternative)
Purpose and Need	No	Yes
Land Use/Community Compatibility	No Change- Incompatible off-airport land control of FAA regulated safety areas	Requires acquisition of land and/or easements from property owners
Operational Efficiency	None	Improved
FAA Design Standards	No	Yes

Source: McFarland Johnson.

The No Action Alternative does not meet the purpose and need and does not alleviate the existing operational concerns caused by the existing obstructions at ART. Obstruction Removal Alternative 2 is the Preferred Alternative as it fulfills the purpose and need, improves Airport land use control within the FAA designated safety areas, provides improved operational efficiency, mitigates the existing penetrations to the approach and departure surfaces, and meets FAA design standards. The Preferred Alternative provides additional safety measures for both the Airport users and adjacent landowners. During the design process, potential impacts would be further defined, evaluated, and mitigated as per applicable regulations.

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4. AFFECTED ENVIRONMENT

Chapter 4 describes the environmental and social settings of the Airport Proposed Action. Information pertaining to the affected environment was obtained through on-site investigations, a review of published information, agency correspondence, and discussions with Airport personnel and public officials. The information presented herein serves as a basis for the assessment of environmental, social, and economic consequences (refer to Chapter 5) associated with the Proposed Action.

The study area evaluated for the following resources consists of the limit of proposed land/easement acquisition and vegetation obstruction removal and in some cases as discussed throughout, resources are evaluated within the entire Airport property.

4.1. AIR QUALITY

Air quality is regulated at the federal level by the Clean Air Act (CAA), which is administered by the US Environmental Protection Agency (USEPA) in coordination with state and local governments.

The CAA is the comprehensive federal law regulating air pollutant emissions from stationary and mobile sources. The CAA requires the USEPA, under 40 CFR Subchapter C, to establish National Ambient Air Quality Standards (NAAQS) that apply throughout the United States and its territories. USEPA has established NAAQS for six contaminants referred to as criteria pollutants: Carbon Monoxide (CO), Nitrogen Dioxide (NO_2), Ozone (O_3), Particulate Matter (PM), Sulfur Dioxide (SO_2), and Lead (Pb). The NAAQS are categorized into primary standards and secondary standards. Primary standards are intended to protect the human health of "sensitive" populations such as asthmatics, children, and the elderly. Secondary standards are environmental-based and intended to protect public welfare, including protection against decreased visibility and damage to animals, crops, vegetation, and buildings.

According to the FAA 1050.1F, Desk Reference, Section 1.1, areas with poor air quality that have concentrations of criteria pollutants above the NAAQS, the USEPA has designated these areas as "nonattainment areas." Areas possessing monitored outdoor air concentrations within the NAAQS are considered "attainment" areas; Each nonattainment area is required to have an applicable State Implementation Plan (SIP) that prescribes mitigation measures and timelines necessary to bring concentrations of criteria pollutants below the NAAQS. The CAA requires federal agencies to ensure that actions proposed to occur in a designated nonattainment or maintenance area conform to the appropriate SIP, also known as General Conformity. Jefferson County is not located within a nonattainment or maintenance area according to the USEPA Green Book dated March 31, 2020[1] and therefore General Conformity does not apply to the Proposed Action. Based the

[1] *https://www3.epa.gov/airquality/greenbook/anayo_ny.html*

information provided above and the Proposed Action type, a qualitative assessment was conducted and is provided in Section 5.1.

4.2. BIOLOGICAL RESOURCES

Biotic resources refer to the various types of flora (plants) and fauna (fish, birds, reptiles, amphibians, mammals, etc.), including State and federally listed threatened and endangered species, in a particular area. It also encompasses the habitats supporting the various flora and fauna including rivers, lakes, wetlands, forests, and other ecological communities. Airport projects can affect these ecological communities and thereby affect vegetation and wildlife populations.

4.2.1. Ecological Communities

The Airport vicinity and adjacent areas are rural in nature. Surrounding the Airport is undeveloped, rural residential, and agricultural lands, with scattered commercial lands along County Route 12F, NYS Route 180, and Evans Road.

The habitat at the Airport consists of maintained grassland, scattered old field, scrub-shrub and successional forest lands, interspersed with various wetland cover types and impervious/paved Airport surfaces. The Airport and off-airport obstruction removal areas are dominated by upland and wetland scrub-shrub and successional forest lands. All habitats identified at the Airport are common and secure within the region.

4.2.2. Federally Protected Species

The US Fish and Wildlife Service (USFWS) protects federally listed endangered and threatened wildlife and plant species and their habitat under the 1973 Endangered Species Act (ESA). The ESA directs all federal agencies to work to conserve endangered and threatened species and to use their authorities to further the purposes of the ESA. Section 7 of the ESA titled "Interagency Cooperation," is the mechanism by which federal agencies ensure the actions they take, including those they fund or authorize, do not jeopardize the existence of any listed species. Endangered species are those which are in danger of extinction throughout their range or a significant portion of its range. Threatened species are those which are likely to become endangered within the foreseeable future throughout all or a significant portion of their range. Candidate species are species which the USFWS has sufficient information on the biological vulnerability and threats to support issuance of a proposal list, but issuance of a proposed rule is currently precluded by higher priority listing actions. Candidate species do not receive substantive or procedural protection under the ESA. However, USFWS does encourage federal agencies and other appropriate parties to consider these species in the planning process.

A review of the USFWS Information, Planning, and Consultation (IPaC) system was conducted on January 18, 2021. The USFWS database indicated that the federally endangered Indiana bat (*Myotis sodalis*) (IBat) and threatened northern long-eared bat (*Myotis septentrionalis*) (NLEB) in the vicinity of the Airport. The IPaC Official Species List stated that there is no critical habit for either species in the project area. The Official Species List from the USFWS is included in Appendix E.

See Section 5.3 for further information regarding potential impacts to state and federally listed threatened and endangered species.

4.2.3. State Protected Species

New York State authority over threatened and endangered species is promulgated under regulation 6 of New York Codes, Rules and Regulations (NYCRR) Part 182, which prohibits the take or engagement in any activity that is likely to result in a take of any state-listed threatened or endangered species. In accordance with Part 182, 'Take' or 'Taking' means the pursuing, shooting, hunting, killing, capturing, trapping, snaring, and netting of any species listed as endangered or threatened, and all lesser acts such as disturbing, harrying, or worrying. Species listed as endangered in NYS are native species in imminent danger of extirpation or extinction in the state, or are species listed as endangered by the U.S. Department of the Interior. Species listed as threatened in NYS are native species that are likely to become an endangered species within the foreseeable future in the state. Species listed as species of special concern are native species that are at risk of becoming threatened in NYS. Fauna classified as species of special concern do not qualify as either endangered or threatened but were determined by the NYS Department of Environmental Conservation (NYSDEC) to require some measure of protection to ensure that the species does not become threatened in the future. Species of special concern are considered "protected wildlife" under Article 11 of the Environmental Conservation Law (ECL).

An information request response from the NYSDEC New York Natural Heritage Program (NYNHP), dated April 15, 2020, indicated that the state endangered short-eared owl (*Asio flammeus*) and the state threatened Henslow's sparrow (*Ammodramus henslowii*) were documented in the vicinity of the project area. The state threatened bald eagle (*Haliaeetus leucocephalus*) was documented within a mile of the project area. The state and federally listed endangered IBat was documented within 1.5 miles (hibernaculum) and within 2.5 half miles (maternity colony) from the project area. The state and federally listed threatened NLEB was documented within 1.35 miles from the project area and an additional location within 2 miles from the project area. The IBat and NLEB is known to travel 2.5 miles and 5 miles, respectively, from documented locations.

Past studies of grassland species and the Henslow's sparrow and short-eared owl were conducted separately for the Airport's Runway 28 extension project and for property owned by Jefferson County IDA located east and west of Airport property. The IDA project located to the east includes property proposed for land acquisition and obstruction removal. Information from the reports assisted in the evaluation of impacts. The reports are provided in Appendix E.

The state threatened Back's sedge (*Carex backii*) was documented within 100 yards of the northern portion of the project area, along the south side of the Black River between Dexter and Brownville. There are two fish species also documented near the project area, the fish are not listed on the state endangered/threatened list. However, the fish are rare and considered imperiled in NYS and there is conservation concern. The Iowa darter (*Etheostoma exile*) and the bridle shiner (*Notropis bifrenatus*) were documented within a half a mile downstream of the project area in Muskellunge Creek. A copy of the correspondence is included in Appendix E.

4.2.4. Biotic Resources Summary

The majority of the Proposed Action project areas consist of habitats that are common and secure within the region.

Both federal and state threatened and endangered species have been documented by the USFWS and NYNHP at or in the vicinity of the project areas. **Table 4-1** lists the species and their federal and state status. See Section 5.3 for further information regarding potential impacts to state and federally listed threatened and endangered species.

Table 4-1: Threatened and Endangered Species

Common Name	Scientific Name	Federal/State Status
Indiana Bat	*Myotis sodalis*	Endangered/ Endangered
NLEB	*Myotis septentrionalis*	Threatened/Threatened
Short-Eared Owl	*Asio flammeus*	Not Applicable/ Endangered
Henslow's Sparrow	*Ammodramus henslowii*	Not Applicable/ Threatened
Bald Eagle	*Haliaeetus leucocephalus*	Not Applicable/ Threatened
Back's Sedge	*Carex backii*	Not Applicable/ Threatened & Imperiled in NYS
Iowa Darter	*Etheostoma exile*	Not Applicable/ Unlisted & Imperiled in NYS
Bridle Shiner	*Notropis bifrenatus*	Not Applicable/ Unlisted & Imperiled in NYS

Source: USFWS IPaC dated January 18, 2021 and NYNHP correspondence dated April 15, 2020.

4.3. CLIMATE

Climate change is a global phenomenon that can have local impacts.[1] Scientific measurements show that Earth's climate is warming, with concurrent impacts including warmer air temperatures, increased sea level rise, increased storm activity, and an increased intensity in precipitation events. Increasing concentrations of greenhouse gas (GHG) emissions in the atmosphere affect global climate.[2],[3], GHG emissions result from anthropogenic sources, including the combustion of fossil fuels. GHGs include carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), O_3, and fluorinated gases.[4] CO_2 is the most important anthropogenic GHG because it is a long-lived gas that remains in the atmosphere for up to 100 years.

Research has shown there is a direct correlation between fuel combustion and GHG emissions. Implementation of the Proposed Action would not increase the number of flights or type of aircraft using the airfield compared to the No Action. The Proposed Action would not increase or change airport operations. As a result, operational emissions, associated airfield emissions sources, parking, and traffic were not inventoried or evaluated as part of this EA.

4.4. COASTAL RESOURCES

The NYS Coastal Management Program (CMP) established statewide boundaries in accordance with the federal Coastal Zone Management Act of 1972. The NYS Coastal Area Boundary is defined in Section II of the NYS CMP and Final Environmental Impact Statement (FEIS). The CMP advocates for waterfront revitalization, protection of fish and wildlife, enhancement and protection of scenic and historic areas, protection of farmlands, and managing erosion and flood hazards[2].

The project areas associated with Runway 10 and Runway 25 ends are located adjacent to the coastal zone for Lake Ontario. The coastal zone runs along the banks of the Black River, north of the Airport, and extends south along NYS Route 180. Proposed land/easement acquisitions and easement enhancements on the north side of NYS Route 12F abut the river and the coastal zone and proposed land/easement acquisition that abuts NYS Route 180 is adjacent to the coastal zone. Proposed vegetation obstruction removal is not located adjacent to the coastal zone. The coastal zone is shown in **Figure 4-1**.

The federal Coastal Barrier Resources Act provides for review of federally funded projects undertaken within the Coastal Barrier Resources System (CBRS). The CBRS contains undeveloped coastal barriers along the coasts of the Atlantic Ocean, Gulf of Mexico, and Great Lakes. The Airport is not located within a CBRS and the Coastal Barrier Resources Act would not apply to any proposed improvements at the Airport and is therefore not evaluated further in Chapter 5, Environmental Consequences.

4.5. SECTION 4(F) RESOURCES

Section 4(f) of the Department of Transportation Act of 1966 protects publicly owned parks, recreation areas, wildlife and waterfowl refuges, and historic sites of national, state, or local significance from development unless there are no feasible alternatives.

There are no Section 4(f) resources located within the project area. A radius of approximately ½ mile from the project area was evaluated for Section 4(f) resources. The following resources are located within approximately ½ mile of the project site:

- Fish Island Park, 0.6 miles northwest
- Black River Bay Campgrounds, 0.3 miles northwest
- NYSDEC Dexter Marsh Wildlife Management Area (WMA), 0.6 miles west
- Conklin Farm National Registered Building Site, south of the RPZ for Runway 28, south of the proposed land/easement acquisition property and north of Evans Road

Section 4(f) sites are shown on **Figure 4-2**.

Section 4(f) resources are not located within the project areas. In addition, the Proposed Action does not propose the physical or constructive use of any Section 4(f) resource. Historic resources are discussed further in Section 4.8.

[2] *https://www.dos.ny.gov/opd/programs/pdfs/NY_CMP.pdf*

4.6. FARMLANDS

The Farmland Protection Policy Act (FPPA) of 1984 (7 USC Sections 4201-4209, as amended) provides statutory framework for considering important farmlands in Federal decisions. FPPA regulates actions with the potential to convert existing important farmlands to nonagricultural uses. The identification of both active farmland and areas of prime, unique and locally important agricultural soil types adjacent to the airport properly allow for an assessment of farmland impacts, as identified by 7 CFR Part 657 and 658.

According to the United States Department of Agriculture (USDA), Natural Resource Conservation Service (NRCS) Web Soil Survey, accessed on January 29, 2019, approximately 60.2% of the Proposed Action is classified as not prime farmland, 28% is classified as Farmland of statewide importance, and 11.8% is classified as Prime Farmland. A USDA NRCS Custom Soil Resource Report is provided in Appendix D. Farmland soil classification within the area of the Proposed Action is shown on Figure 4-3.

The properties proposed for land/easement acquisition and tree obstruction removal are currently zoned Marine, Multi-Use, and Agricultural/Residential. More specifically, the land use types of these properties are currently Vacant Land, Industrial, Commercial, and Residential.

The majority of tree obstruction removal would take place on land classified as farmland. Land to be acquired in fee or as an easement is a majority of Prime Farmland if Drained (66%) with the remainder classified as Prime Farmland (14%), Farmland of Statewide Importance (15%), and not farmland (5%). Land proposed for acquisition associated with the Runway 28 end was previously used as a “hobby farm” and has not been used for farming purposes for more than ten years. Land proposed for acquisition on the Runway 10 end is currently being leased and used for agricultural purposes, such as hay. There are currently no agricultural structures, such as barns, on either property.

Further evaluation to determine the potential for farmland impacts is provided in Section 5.4.

Figure 4-1: Coastal Zone Map

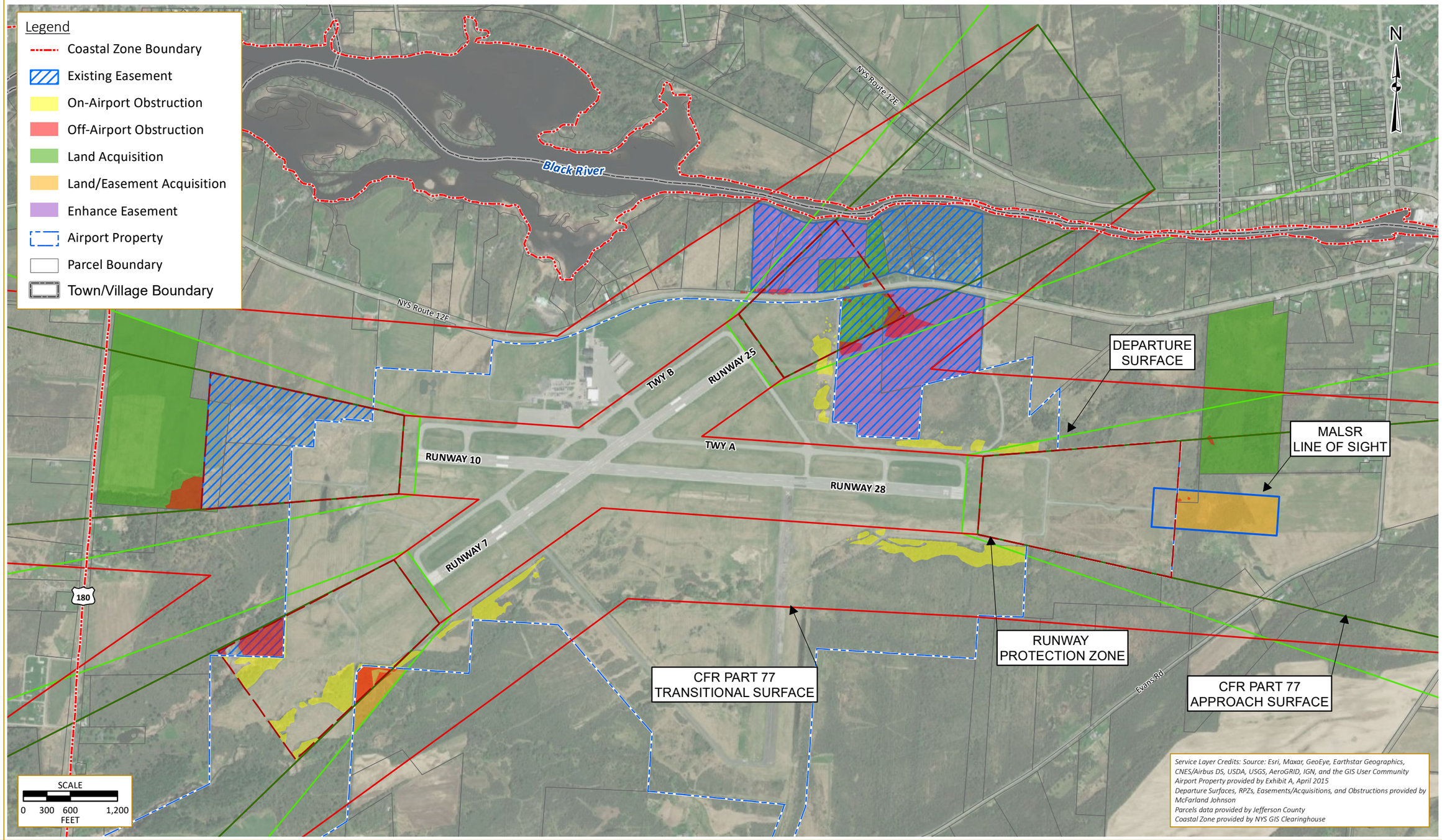

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Figure 4-2: Points of Interest Map

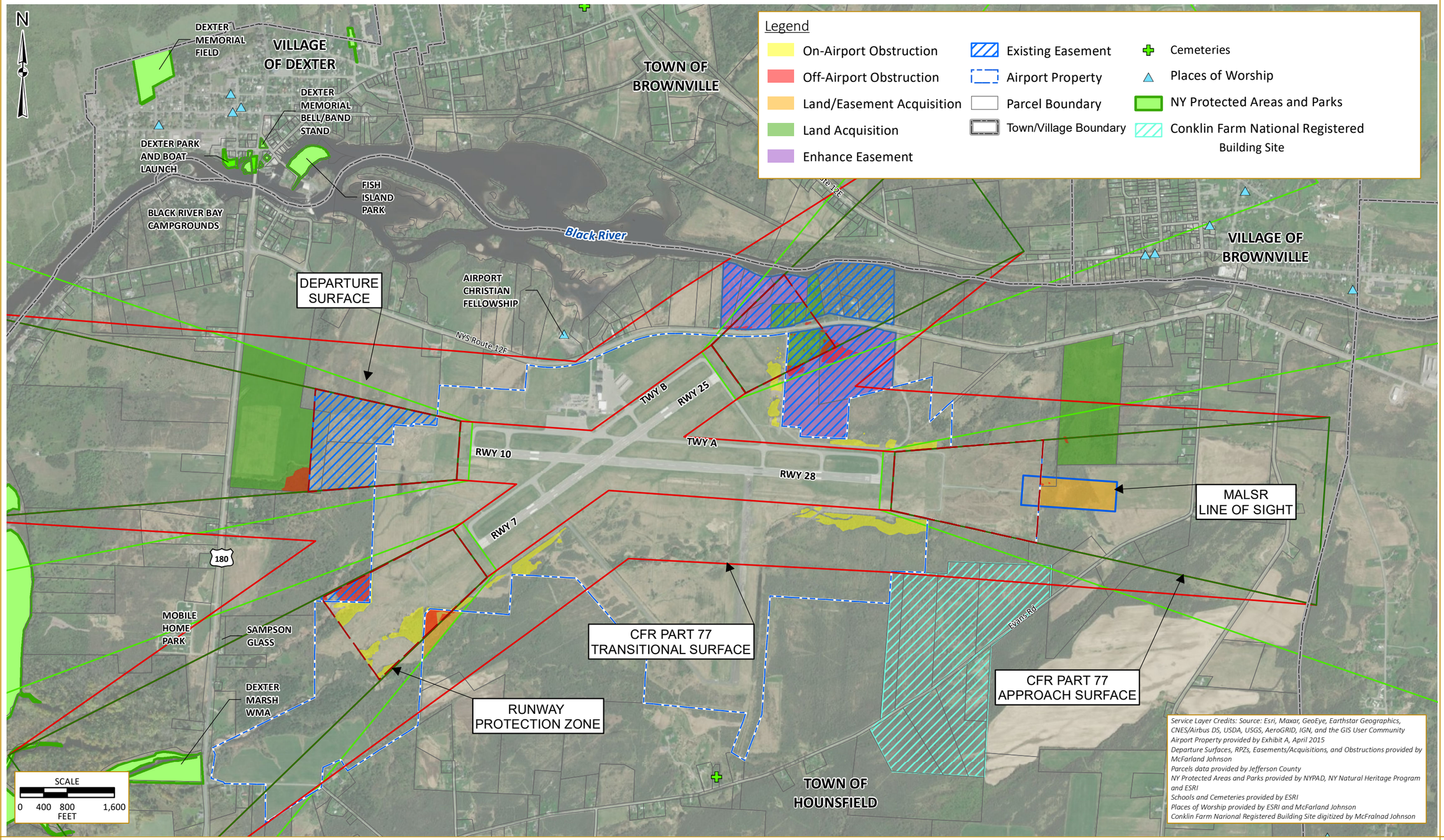

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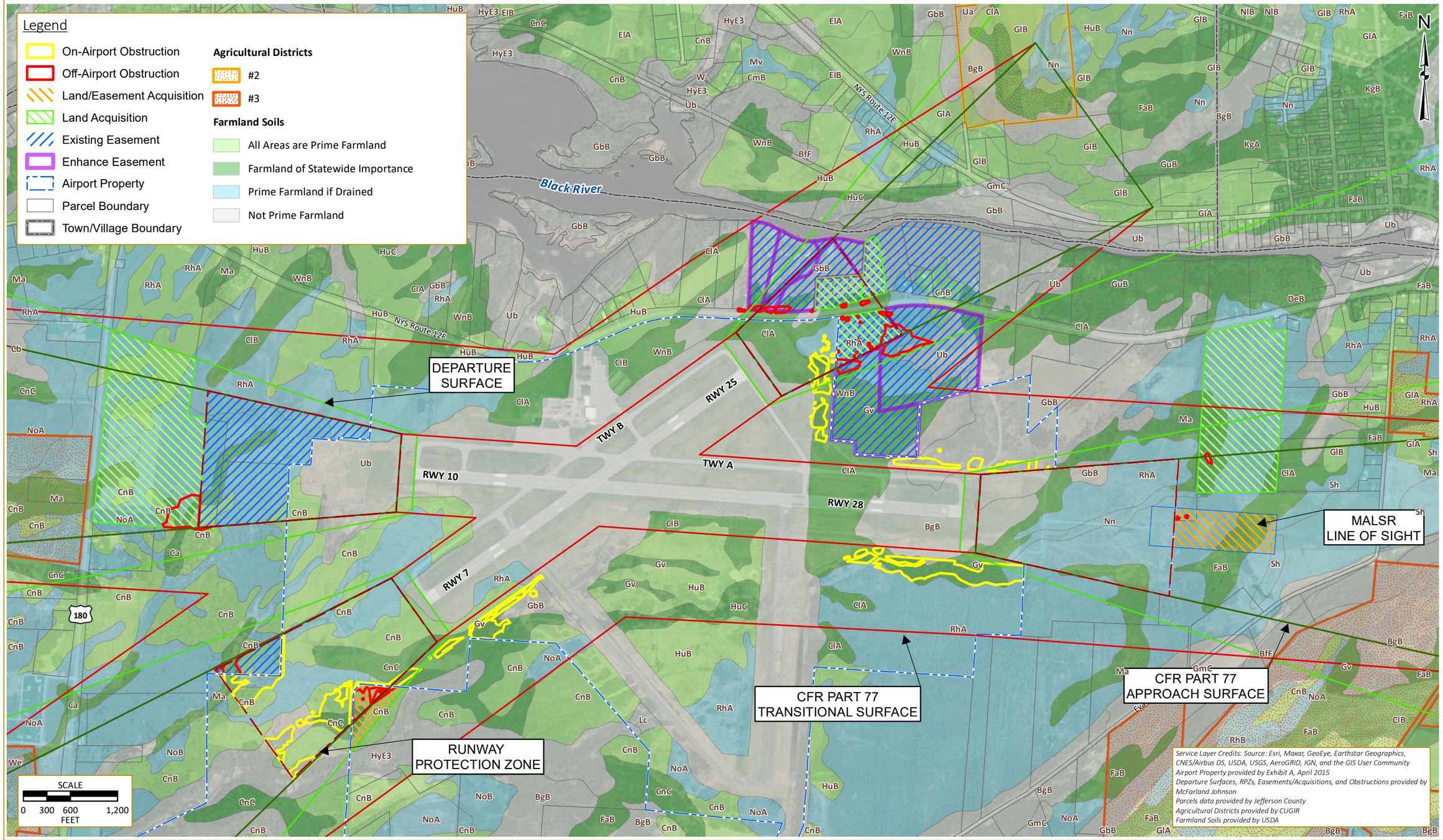
Figure 4-3: Farmland Soils and Agricultural Districts Map



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4.6.1. New York State Agriculture and Markets

Under the New York's Agricultural Districts Law, Article 25-AA PDF of the NYS Agriculture and Markets Law, counties are required to establish agricultural districts to protect farmland and provide landowner incentives in agriculture districts. However, there are no zoned agricultural areas in the project area.

There is one agricultural district (Agricultural District #2) located within the vicinity of the Airport and the project area as shown on **Figure 4-3**. The agricultural district areas are located on the west side of NYS Route 180 and on the southern side of Evans Road. NYS Agricultural Districts Law assists with keeping farmland in agricultural production and Jefferson County has an Agricultural and Farmland Protection Plan that protects farmland as well. The Proposed Action is not located within an agricultural district, and therefore, no further evaluation is required.

4.7. HAZARDOUS MATERIALS, SOLID WASTE, AND POLLUTION PREVENTION

A hazardous or contaminated environmental condition is the presence or likely presence of any hazardous substances or petroleum products (including products currently in compliance with applicable regulations) on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, groundwater, or surface water of the property.

Three NETROnline Environmental Radius Reports (ERRs) were obtained on April 27, 2020. The three ERRs cover the project area including the Airport property (north), NYS Route 180 (west), and Evans Road (east). The ERRs are included **Appendix F**.

The Airport property ERRs include three findings, as described below.

1. U.S. Resource Conservation and Recovery Act (RCRA) Generators, Conditionally Exempt Small Quantity Generators (CESQG), which means 100 kilograms or less of hazardous waste is generated in a month or one kilogram or less per month of acutely hazardous waste is generated. The hazardous waste is produced by the Airport Transportation Security Administration (TSA) for Airport operations.
2. The Airport is authorized to discharge stormwater associated with industrial activities under the NYSDEC State Pollutant Discharge Elimination System (SPDES) Multi-Sector General Permit for Stormwater Discharges Associated with Industrial Activity (MSGP) (Permit No. GP 0-17-004). The Airport NYSDEC permit identifier is NYR00F713.
3. The Airport has Underground Storage Tanks (USTs) that contain petroleum substances.

There were several findings in the Evans Road ERRs, however, none of the findings are located within the project area, they are either located north of NYS Route 12F or east Evans Road. In addition, there were no findings in the NYS Route 180 ERRs.

Review of the NYSDEC Spills Incidence for the past 30 years (1990-2020), Environmental Site Remediation and Bulk Storage Databases conducted on April 27, 2020, indicated that there were two spills at the Airport; one in 2008 (gasoline on soil) and the other 2016 (gasoline and diesel on impervious surface); both spills are closed. There are no environmental site remediations in the project area.

The Airport stores petroleum for fueling and other Airport operations. Subsequently, as required by USEPA, the Airport implements a Spill Prevention, Control and Countermeasure (SPCC) Plan to "prevent the discharge of oil from non-transportation related on-shore and off-shore facilities into or upon the navigable waters of the United States or adjoining shorelines."

Based on site walkovers of Airport owned parcels and accessible private parcels, there is no visible evidence of contamination or presence of contaminated or hazardous materials. Based on the review of the available EPA and NYSDEC databases, there is no indication that the Proposed Action project area has been impacted by hazardous materials. Hazardous materials, solid waste, and pollution prevention are further evaluated in Section 5.5.

4.8. HISTORICAL, ARCHETECTUAL, ARCHEOLOGICAL, AND CULTURAL RESOURCES

The National Historic Preservation Act (NHPA) Section 106 requires that federal agencies such as the FAA consider the effects of their actions on historic properties via consultation with the State Historic Preservation Office (SHPO). According to 36 CFR Part 800, an historic property is "any prehistoric or historic district, site, building, structure, or object included in, or eligible for, inclusion in the National Register of Historic Places (NRHP)." The NYS Office of Parks, Recreation and Historic Preservation (OPRHP) is responsible for maintaining historical, archaeological, and cultural resources sites throughout the State.

The State University of New York (SUNY) Public Archaeological Facility (PAF) completed a Phase IA Cultural Resource Assessment of the obstruction removal areas in December 2019 (see Cultural Resource Management Report in Appendix G). The Phase IA determined there is potential for archaeological uses within the obstruction removal areas. However, the proposed vegetation obstruction removal would involve leaving the tree stumps in place and therefore the ground and any potential artifacts would not be disturbed. The Phase IA documentation was submitted to SHPO using the Cultural Resources Information System (CRIS). According to SHPO's response received April 1, 2020, "no historic properties, including archaeological and/or historic resources, will be affected" by the Proposed Action. The response from SHPO is included in Appendix D.

4.9. LAND USE

The approximate 1,060 acres of Airport property owned and operated by Jefferson County, located in the town of Hounsfield, are classified as public services land use. Off-airport properties within the Proposed Action project area are classified as residential, commercial, vacant, and agricultural lands. The area surrounding the Airport has lands classified as mostly residential, vacant, and agricultural lands with a few commercial and community services (church) land, as shown in Figure 4-4. Across the Black River there are two populated villages, the Village of Dexter to the northwest and the Village of Brownville to the northeast. According to the town of Hounsfield 2014 Comprehensive Plan, the town is interested in developing land use regulations, however, the town has not enacted any regulations as of 2020. The Land Use Map illustrates land uses based on Jefferson County parcel data.

The town of Hounsfield enforces zoning. Airport property is zoned Industrial. Property to the north of the Airport, along NYS Route 12F, is zoned as Marine, to the west along NYS Route 180 and northeast along Route 12F is zoned Multi-Use, to the south and east along Evans Road the zoning

is Agricultural/Residential, and to the northeast along NYS Route 12F, it is zoned as Hamlet. Zoning for the Airport and surrounding area is shown as Figure 4-5.

According to the town of Hounsfield Zoning Law, December 2017, the zoning districts are defined as followed:

- **Industrial (I):** concentrate heavy industrial uses in a portion of Town that protects existing and future residential development
- **Marine (MR):** enhance natural, scenic, and recreation opportunities by promoting recreational, open space, rural, agricultural, and residential uses
- **Multi-Use (MU):** promote harmonious use between residential, commercial, and light industrial land use expansion
- **Agricultural/Residential (AR):** preserve rural character, protect agriculture, and promote harmonious use between agricultural and residential
- **Hamlet (H):** promote size and character of existing neighborhood by having a mix of medium density residential and commercial development

4.9.1. Future Planned Uses

The Jefferson County Industrial Development Agency (IDA) is currently developing land on NYS Route 12F northeast of the Airport and adjacent to land with an existing avigation easement. Proposed development is consistent with the County's Airport Business Complex plan and would consist of commercial/industrial land use.

A proposed residential development, Lake Ontario Estates, is located on NYS Route 180 north of the Muskellunge Creek crossing and south of the mobile home park.

There are no other known future planned uses within or in the immediate vicinity of the Proposed Action project area.

4.9.2. Industrial and Commercial Activities Characteristics

Airport property is zoned Industrial. Land surrounding the Airport and the off-airport project area, is zoned as Multi-Use to the east and west, Agricultural/Residential to the south and Marine to the north. Per the definition for the town of Hounsfield's Industrial Zoning, the municipality desires to concentrate industrial use to protect residential development.

Commercial uses are mostly located along NYS Routes 12F and 180. Commercial businesses include, but are not limited to the following: Blackstone Electric across from the Airport entrance, Farmhouse Maple on NYS Route 180, and Jodi's Dairy Bar and M&K Truck and Auto Repair, west of the intersection of Evans Road and NYS Route 12F.

4.9.3. Residential Areas, Medical Centers, Schools, Places of Worship, Outdoor Areas

A majority of the Airport is surrounded by rural residential areas along NYS Routes 180 and 12F and Evans Road. A mobile home park is located on NYS Route 180, west of Airport property. There are no medical centers or hospitals in close proximity to the Airport. The closest schools are the Dexter Elementary School, which is two miles northwest of the Airport, and the General Brown

Junior-Senior High School, approximately three miles north of the Airport. The Airport Christian Fellowship church is located on Route 12F across from the Airport's main entrance. In addition, there are multiple places of worship located in Dexter and Brownville, which are greater than two miles north of the Airport. As previously discussed in Section 4.3, there is a park, campground, and WMA nearby. For locations of discussed sites see Figure 4-2.

4.10. NATURAL RESOURCES AND ENERGY SUPPLY

The project will use a relatively small amount of readily available natural resources and energy supply for tree obstruction removal. At most, machinery powered by fuel or electricity will be used for tree removal. Overall, the proposed improvements are not of the scale or type to have a significant effect on natural resources or energy supply. Potential impacts to natural resources and energy supply as a result of the Proposed Action are further evaluated in Section 5.7.

4.11. NOISE AND NOISE-COMPATIBLE LAND USE

Typically, when discussing noise generated from airports, the main concern is noise emissions generated by aircraft and the operation of an airport and how it can impact certain land uses surrounding an airport. Some land uses are more susceptible to noise impacts than others. Some noise-sensitive land uses are places of religious worship, hospitals, schools, parks, amphitheaters, and residential structures, while recreational land uses are moderately noise-sensitive. Noise levels inherent to airports are generally compatible with most industrial, commercial, and agricultural land uses. However, the Proposed Action would not affect aircraft operations and therefore, aircraft noise levels would remain unchanged as a result of the Proposed Action.

Potential noise sensitive areas would include residential areas located on NYS Route 12F on the Runway 25 end and a single residence on NYS Route 180 on the Runway 10 end. Temporary noise impacts from obstruction removal on and off Airport property is discussed in Section 5.10.

4.12. SOCIOECONOMICS, ENVIRONMENTAL JUSTICE, AND CHILDREN'S ENVIRONMENTAL HEALTH AND SAFETY RISKS

4.12.1. Socioeconomics

This section provides information on the socioeconomic characteristics of the area surrounding the Airport. The most recent statistics from the U.S. Census Bureau were used to examine the population profile, characteristics, and trends for the region.

According to the U.S. Census Bureau, population of Jefferson County decreased by almost three percent since 2010, from 115,069 people in 2010 to 111,755 in 2018. In addition, the population of Hounsfield decreased by over 27 percent, from 3,384 in 2010 to 2,450 in 2018. The city of Watertown's population also decreased by just under three percent, 26,753 in 2010 to 26,057 in 2018.The town of Watertown increased in population by three percent from 4,533 in 2010 to 4,676 in 2018.

Figure 4-4: Land Use Map

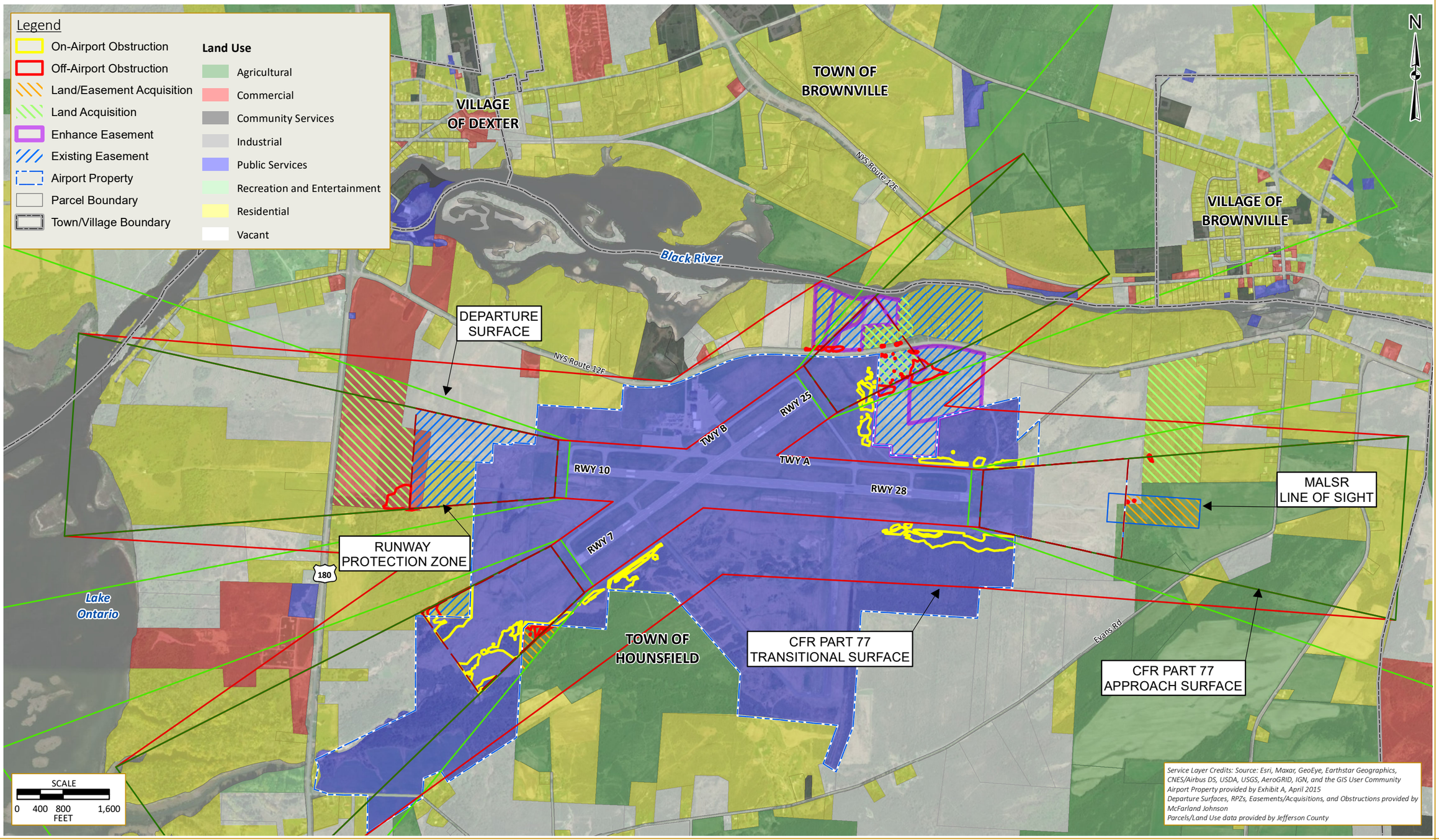

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Figure 4-5: Zoning Map

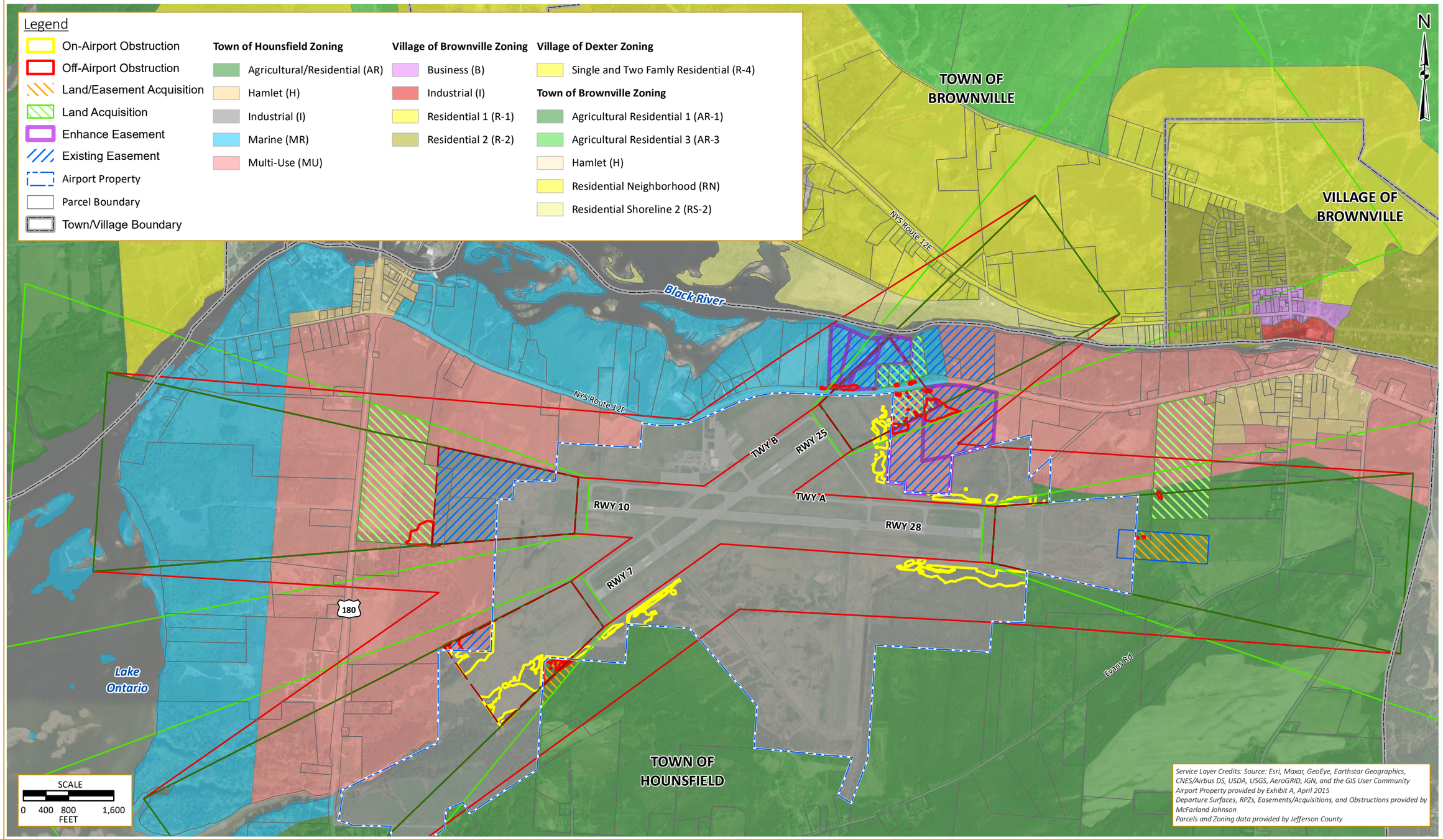

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Table 4-2 has a brief compilation of demographic profiles for the town of Hounsfield, town of Watertown, city of Watertown, and Jefferson County. As shown on the table, the socioeconomic characteristics included are population, racial/ethnic composition, median household income, travel time to work, and population in the labor force.

Table 4-2: Demographics

	Town of Hounsfield	Town of Watertown	City of Watertown	Jefferson County
Population	3,450	4,676	26,057	111,755
White	3,257	3,837	21,845	98,570
Black or African American	21	252	2,090	6,894
American Indian/ Alaska Native	0	20	262	533
Asian	61	247	353	1,884
Native Hawaiian or Other Pacific Islander	0	0	53	245
Hispanic or Latino	144	459	2,007	8,485
Other Race	8	176	247	2,144
Median Household Income	$37,798	$77,143	$41,339	$52,286
Mean Travel Time to Work (minutes)	23.8	17.5	14.5	17.8
In Labor Force	1,387	3,864	20,437	44,760
Population Below Poverty Level	11%	7.6%	25.6%	14.2%

Source: American Community Survey (ACS) 5-Year Estimates, 2018.

The racial and ethnic makeup in the vicinity of ART is less diverse than major metropolitan areas in New York, including the city of Watertown. The percent of population below the poverty level in Hounsfield is lower than Jefferson County and New York State. Median household income and the population in the labor force is approximately 40% for both the town of Hounsfield, where the Airport is located, and Jefferson County.

Potential impacts to socioeconomics as a result of the Proposed Action are further evaluated in Section 5.9.

4.12.2. Environmental Justice

In accordance with EO 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, federal agencies are required to incorporate environmental justice into their planning processes.

Based on NYSDEC environmental justice area maps for Jefferson County, the Airport and Proposed Action project area is not located within a potential environmental justice area. Environmental justice areas in Jefferson County are remote from the Proposed Action project area, with the nearest area located in the city of Watertown.

According to the EPA Environmental Justice Screening and Mapping Tool (Version 2019) accessed on January 7, 2021, low income and minority populations are generally located east of the Airport and in Watertown, approximately over four miles from the project area. However, the Airport and surrounding area south of State Route 12F and east of State Route 180, are mapped as 80-90 percentile for low income population.

The Airport and project areas south of State Route 12F and east of State Route 180 are located in an 80-90 percentile for low-income population. However, the overall percent of population below the poverty level in Hounsfield (11%) is lower than Jefferson County (14.2%); therefore, the community around the Airport is not considered a low-income community. The percent of minority population of the Proposed Action located of Hounsfield is 5.6% compared to 11.8% for Jefferson County; therefore, the community would not be considered a predominately minority community.

Potential impacts to environmental justice areas are further evaluated in Section 5.9.

4.12.3. Children's Health and Safety Risks

There are no schools, daycares, parks, and/or children's health clinics in the project area. Children's population statistics show that Hounsfield's younger population is relatively consistent with Jefferson County and New York, with the exception of a lower percentage of under 5-year-old persons (see Table 4-3).

Table 4-3: Children's Population Statistics

	New York	Jefferson County	Town of Hounsfield
Total Population	19,618,453	114,448	3,450
Under 5 years	1,163,606/ 5.9%	9,078 / 7.9%	131 / 3.8%
5 to 9 years	1,121,174 / 5.7%	7,900 / 6.9%	264 / 7.7%
10 to 14 years	1,146,521 / 5.8%	6,749 / 5.9&%	244 / 7.1%
15 to 19 years	1,224,760/ 6.2%	6,937 / 6.1%	233 / 6.8%

Source: ACS 5-Year Estimates, 2018.

Potential impacts to children's health and safety risks are further evaluated in Section 5.9.

4.13. VISUAL EFFECTS

A visual effect refers to the potential effects due to light emissions, as well as the potential effects to visual resources and character of the existing environment. There are no special purpose laws, permits, or certificates for light emissions or their visual effects. However, light emissions or resulting visual effects from any proposed development action have the potential to affect nearby residential areas or properties covered under Section 4(f) of the USDOT Act, the Land and Water Conservation Fund Act, and Section 106 of the National Historic Preservation Act.

The FAA is required to consider the potential for lighting associated with a proposed development action to become an annoyance to people in the vicinity or interfere with normal activities. Because most air navigational systems and other airport development actions produce relatively low levels of light intensity compared to background levels, adverse effects on human activity or the use or characteristics of protected properties, when present, are unlikely.

The Airport is located on a plateau that generally slopes toward the southwest. Aviation related structures are generally located north-central portion of the Airport property. The Proposed Action project area is surrounded by mixture of open and forested lands.

4.13.1. Light Emissions

Light emissions are typically one of the greatest concerns for residents in neighborhoods, as well as users of other parcels adjacent to an airport that could be directly impacted by a change in lighting.

Current light emissions at the Airport are associated with airside lighting consisting of the following:

- Runway 7-25 has high-intensity edge lighting, and Runway 10-28 is equipped with medium-intensity runway lights (MIRLs).
- Runway 7 is equipped with MALSR.
- Runway 28 has runway end identification lights (REIL).
- All airfield taxiways are illuminated with medium intensity taxiway lights (MITL). All Airfield lighting is pilot controlled.
- All four runway ends have a four box precision approach path indicator (PAPI). PAPI provide lighted guidance to an inbound aircraft and are aligned in a single row.
- The Airport is also equipped with a rotating beacon, with alternating green and white lights.

Landside lighting generally consists of the following:

- Terminal building lighting.
- Parking lot box shield/downward facing lighting.
- Access roadway box shield/downward facing lighting.
- Hangar building lighting.

Off-airport light emissions in the vicinity of the Proposed Action consists of mostly residential lighting, interspersed with a few commercial businesses and a church.

4.13.2. Visual Resources and Character

ART is located in a sparsely developed area consisting of a mix of residential, community service, and agriculture land uses. There are no unique visual resources in the immediate vicinity of the Proposed Action. The nearest visual resources, including historic and eligible historic sites, near the project areas consists of the Conklin Farm located near the southeast corner of Airport property.

Potential visual impacts as a result of the Proposed Action are discussed in Section 5.11.

4.14. WATER RESOURCES

4.14.1. Wetlands

The U. S. Army Corps of Engineers (USACE) regulates certain activities in jurisdictional wetlands under Section 404 of the Clean Water Act (CWA). On April 21, 2020, the EPA and the Army Corps published the Navigable Waters Protection Rule in the Federal Register to finalize a revised definition of "Waters of the United States" under the CWA. The rule streamlined the definition of Waters of the United States to include four simple categories of jurisdictional waters, including surface waters and wetlands, and providing clear exclusions for water features that have not been traditionally regulated, and provides regulatory definitions for terms previously undefined. This final rule became effective on June 22, 2020.

The NYSDEC also regulates certain wetlands within NYS under the Article 24 of the ECL, often referred to as the "Freshwater Wetlands Act". The NYSDEC regulates those wetlands within the NYS that are larger than 12.4 acres (5 hectares) in size, and certain smaller wetlands of unusual local importance. The NYSDEC also regulates a 100-foot adjacent area that surrounds the wetland.

In addition, Executive Order (EO) 11990 - Protection of Wetlands, states that federal agencies shall provide leadership and shall take action to the destruction, loss, or degradation of wetlands, and to preserve and enhance natural and beneficial values of wetlands in carrying out the agency's responsibilities. Under EO 11990, wetlands are defined as those areas that are inundated by surface or ground water with a frequency sufficient to support and under normal circumstances does or would support a prevalence of vegetative or aquatic life that requires saturated or seasonally saturated soil conditions for growth and reproduction.

National Wetlands Inventory (NWI) mapping prepared by the USFWS indicated the potential for several emergent and scrub/shrub wetland areas to exist within the project area as shown on Figure 4-6. NWI mapping does not have any regulatory consequence, but rather indicates areas that may meet federal wetland criteria as identified by the USFWS using aerial photography.

Review of NYSDEC freshwater wetland mapping, indicates that NYS Freshwater Wetland (FWW) W-1 is mapped southeast of Runway 28 Approach End by Evans Road (see Figure 4-6).

McFarland-Johnson, Inc. (MJ) performed wetland and surface water delineations of the portions of the project area located on Airport owned property in May and June of 2020. The wetland delineations were conducted through field investigations of vegetation, soils, and hydrology in accordance with the 1987 *USACE Wetlands Delineation Manual* (1987 USACE Manual) and 2012 *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region* (2012 Regional Supplement). Locations of delineated wetlands are shown on Figure 4-7.

On-airport delineated wetlands consisted predominately of a mix of scrub-shrub and forested wetlands. All wetlands delineated in the portions of the project area located on Airport owned property south of Runway 10-28 either continue outside of the project area and abut or have intermittent surficial hydrological connections to Muskellunge Creek or the Black River.

Figure 4-6: Wetlands and Surface Waters Map

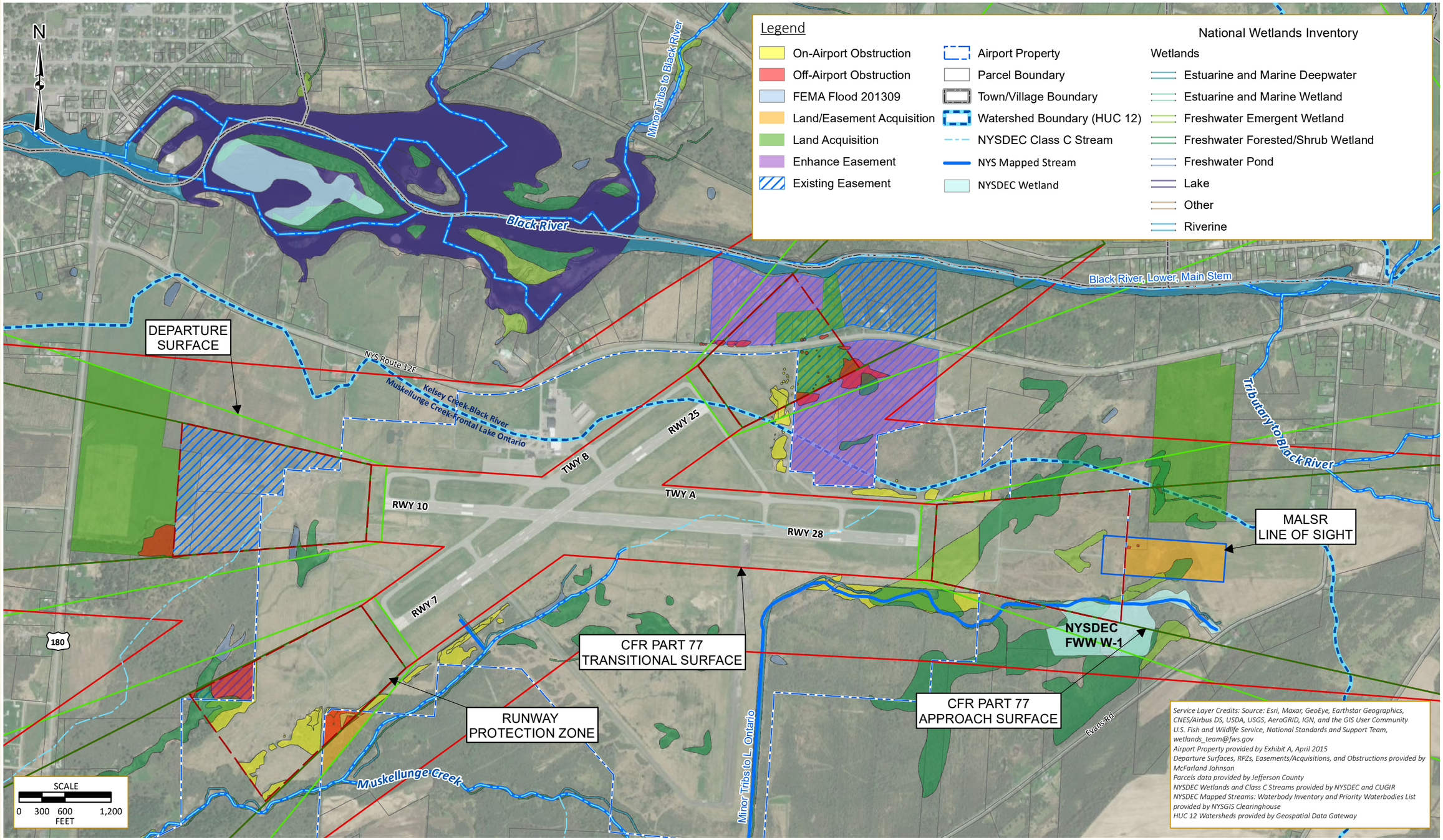

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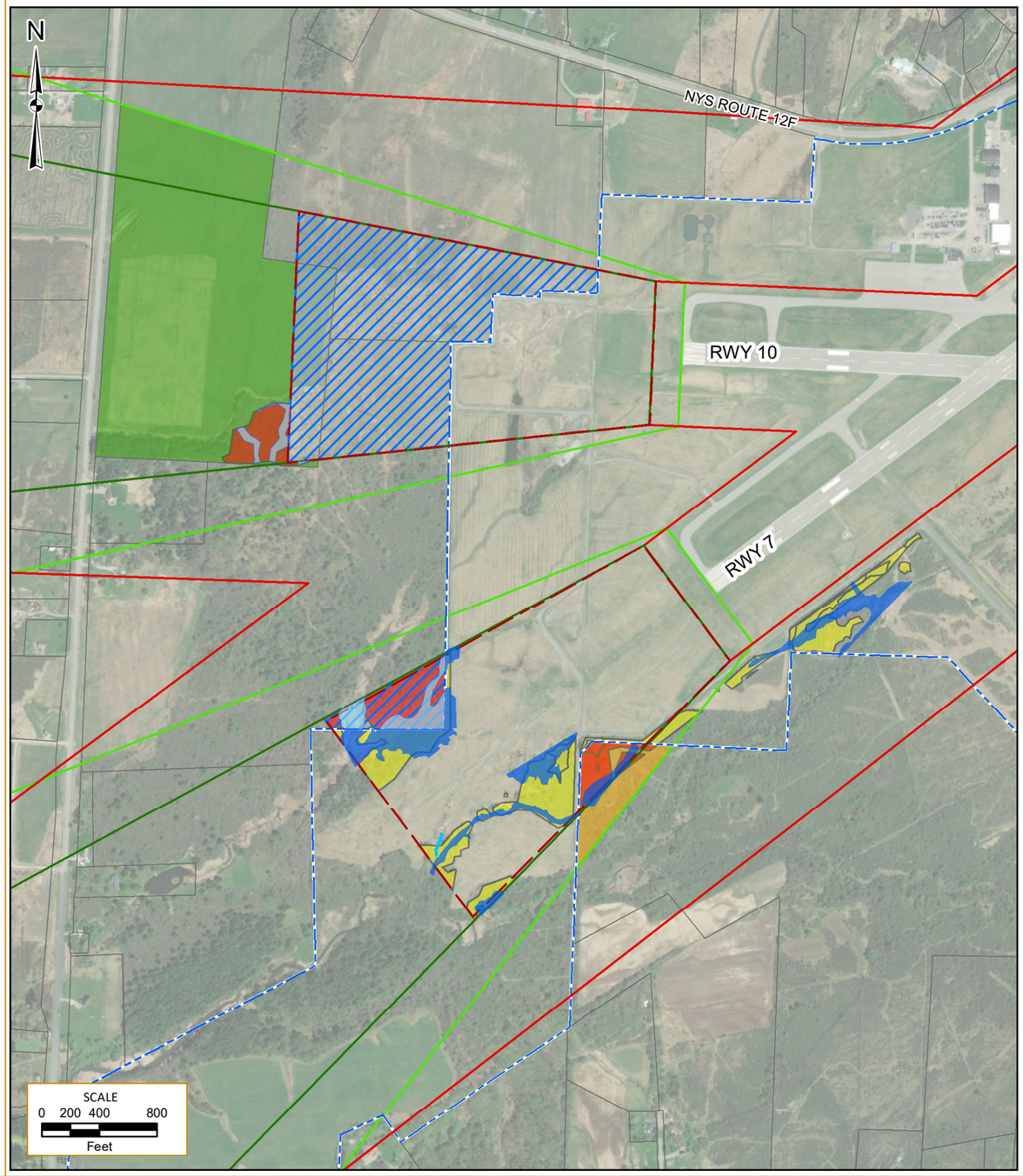
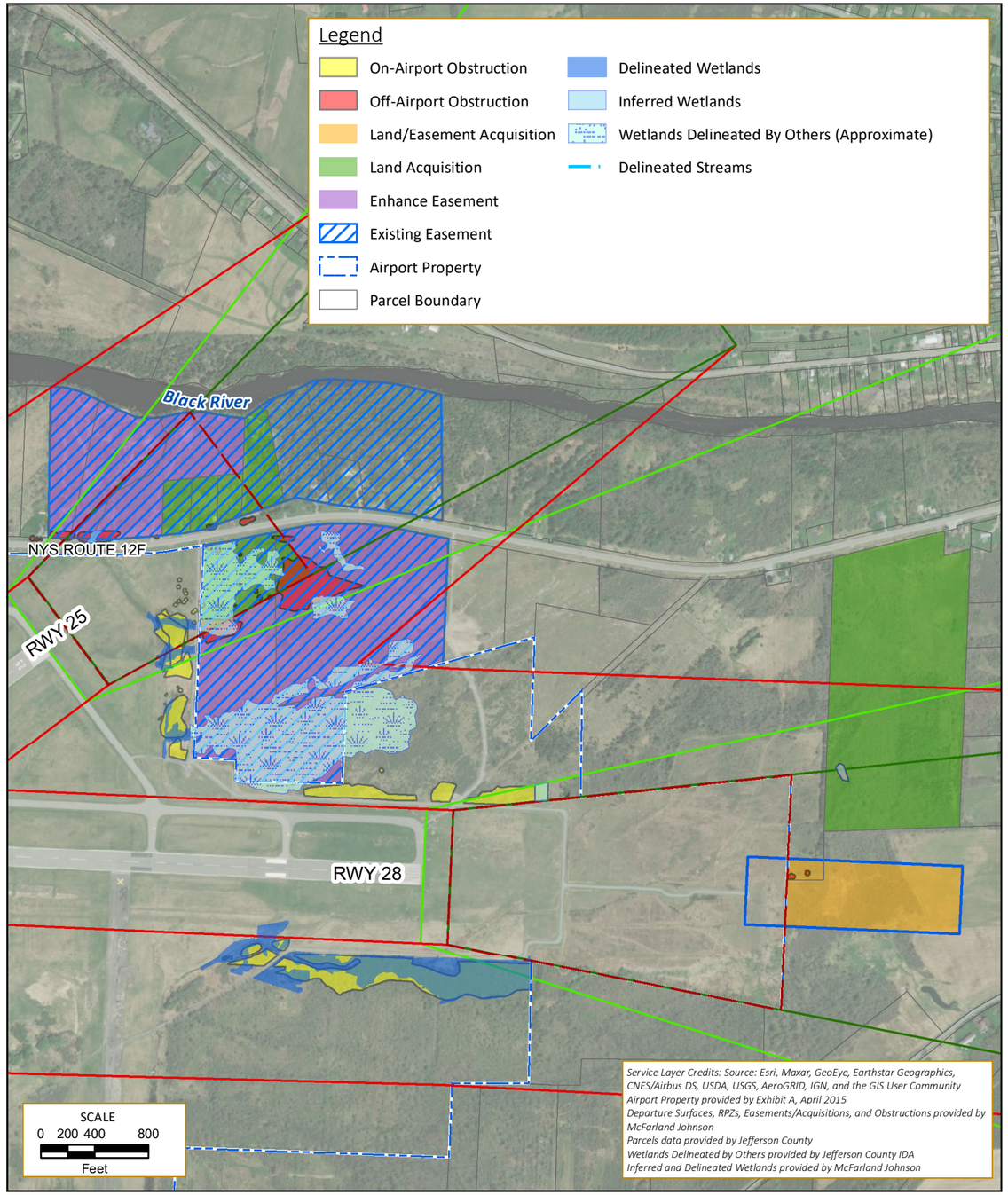
Figure 4-7: Delineated and Inferred Wetlands Map





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Muskellunge Creek and the Black River flow in a westerly direction to Lake Ontario, located southwest of the Airport. Further investigation of adjacent lands is required to determine potential off site hydrological connections of wetlands delineated on Airport owned property east of RW-25 Approach End.

Approximate wetland boundaries on privately owned lands proposed for obstruction removal were inferred based on available aerial photographs, and topographic, soils, and wetland mapping. In October 2020, MJ conducted site walkovers on privately owned lands proposed for obstruction removal where permission to access the properties was granted to further refine the inferred wetland boundaries. In addition, previous wetland delineation mapping of Jefferson County Industrial Development Agency (IDA) owned lands east of RW-25 Approach End was consulted. The approximate locations of these inferred wetlands and the prior wetland delineation on IDA property are also shown on Figure 4-7.

In general, all wetlands identified as part of this EA are mostly part of larger wetland complexes. Approximately 22 wetland areas, including inferred, delineated by MJ and by others, were identified. Approximate wetland locations are shown on Figure 4-7.

See Section 5.12 for information regarding wetland permitting.

4.14.2. Floodplains

Floodplains are low lying land areas typically associated with bodies of water that are likely to become inundated during a flooding event. Floodplains serve an important function in retaining storm waters to protect against downstream flooding, property damage, and potential loss of life.

EO 11988, Floodplain Management, directs all federal agencies to avoid the direct and indirect support of floodplain development wherever there is a practicable alternative.

According to the FEMA Flood Insurance Rate Map (FIRM) panel 360340C0015C published November 20, 1991, there are portions of Airport property and the project area that is in Zone A or 100-year floodplain (1 percent chance of flood hazard in a given year). The portions of the Airport and project area that are in Zone A are the properties along the Black River, areas south/southwest of Runway 7 and areas southeast of Runway 28. The remaining Airport property and project area are located in Zone X, which is defined as areas of minimal flood hazard and outside the 500-year flood level (0.2 percent chance of flood hazard in a given year). The Proposed Action project area is located within floodplain areas as shown on Figure 4-8. However, vegetation obstruction removal areas are not located in FEMA designated floodplain areas, and therefore, impacts to floodplains are not anticipated and further evaluation is not required.

4.14.3. Surface Waters

The USACE regulates surface waters under Section 10 of the Rivers and Harbors Appropriation Act (RHA) that are considered to be traditional navigable waterways (TNW) as defined in the Act. The USACE also regulates certain surface waters, including wetlands, under Section 404 of the CWA.

The NYSDEC regulates activities in water bodies that are considered to be “protected streams” or "Navigable Waters of the State" under the Article 15 of the ECL. Small ponds and lakes with a

surface area of 10 acres or less, located within the course of a stream, are considered to be part of a stream and are subject to regulation under Article 15. Waters in New York State are assigned a classification based on their existing or expected best usage. The classification of AA or A is assigned to waters used as a source of drinking water. Classification B indicates a best usage for swimming and other contact recreation, but not for drinking water. Classification C is for waters supporting fisheries. The lowest classification is D. Waters with a classification of A, B, or C may also have a standard of (T) or (TS), indicating the capacity to support trout or trout spawning. Streams and small water bodies located in the course of a stream that are designated as C(T) or higher (i.e., C (T), C(TS), B, or A) are collectively referred to as "protected streams." "Navigable Waters of the State" are defined as all lakes, rivers, streams and other bodies of water in the state that are navigable in fact or upon which vessels with a capacity of one or more persons can be operated notwithstanding interruptions to navigation by artificial structures, shallows, rapids or other obstructions, or by seasonal variations in capacity to support navigation. NYSDEC Class C streams and other NYSDEC mapped streams are shown on **Figure 4-6**.

During the MJ wetland and surface water delineations of the portions of the project area located on Airport owned property conducted in May and June of 2020, one ephemeral stream was identified off the RW-7 Approach End. The location of the delineated stream is shown on **Figure 4-7**.

No streams were identified during the October 2020 site walkovers of the privately owned lands proposed for acquisition and/or obstruction removal where permission to access the properties was granted.

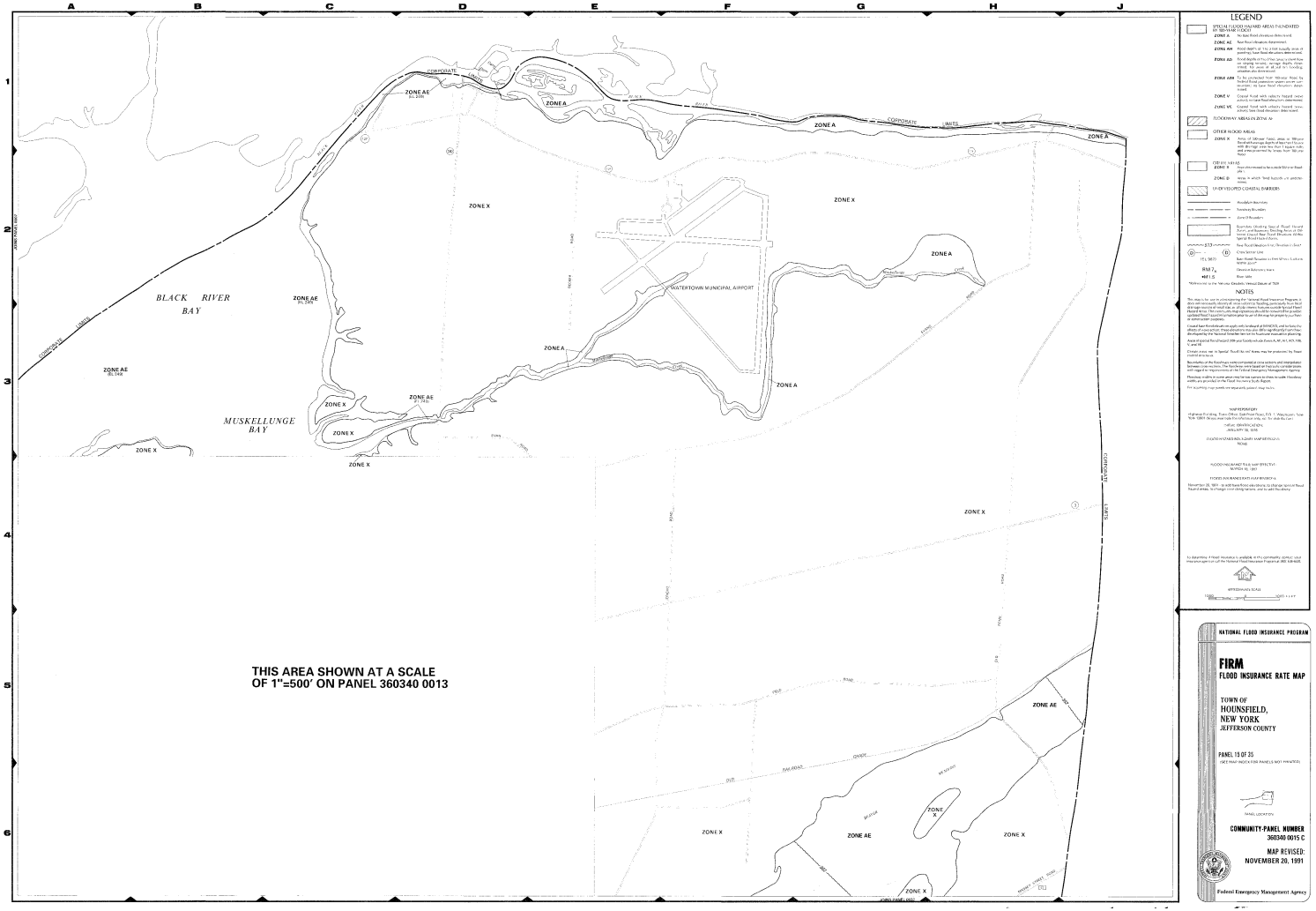
4.14.4. Groundwater

Groundwater serves as an important potable water supply for many individual households, small communities, and larger municipalities. Potential impacts from airport development projects can include reduced groundwater recharge and potential contamination through chemical, toxin or other pollutant releases.

The EPA Sole Source Aquifer (SSA) program was established under the Safe Drinking Water Act (SDWA). According to the EPA, an SSA is defined as one that supplies at least 50 percent of the drinking water for its service area, and wherein which there is no reasonably available alternative drinking water sources should the aquifer become contaminated. The SSA program allows for EPA review of federally funded projects that have the potential to affect designated SSAs and their source areas.

According to the EPA SSA Geographic Information System (GIS) data, there are no SSAs located on or within the vicinity of the Airport property.

Figure 4-8: FEMA FIRM



Source: FEMA Flood Map Service Center, https://msc.fema.gov/portal/search?AddressQuery, Accessed March 25, 2020.

4.14.5. Wild and Scenic Rivers

According to the Nationwide Rivers Inventory (NRI), the portion of the Black River east of NYS Route 180 into Watertown, past I-81, is on the NRI listed for its fishing, recreation, and being scenic. There are properties proposed for existing easement enhancement and acquisition that abut the Black River. However, easement enhancement and land acquisition would not impact the Black River and tree obstruction removal is not proposed in the vicinity of the Black River. Therefore, further evaluation or consultation is not required.

5. ENVIRONMENTAL CONSEQUENCES

Chapter 5 describes the anticipated environmental, social, and economic consequences of the Proposed Action. Information pertaining to the environmental consequences was obtained through an evaluation of the MPU, on-site investigations, review of published information, agency correspondence, and discussions with Watertown International Airport (Airport) personnel and public officials.

The following resources are not affected by the Proposed Action due to their absence within the project area or immediate vicinity; therefore, do not require further evaluation in accordance with Paragraph of 4-2.c of FAA Order 1050.1F:

- Coastal Zones
- Coastal Barriers
- DOT Section 4(f) Resources
- Floodplains
- Groundwater
- Historic, Architectural, Archaeological, and Cultural Resources
- Wild and Scenic Rivers

The absence of these resources is documented in Chapter 4.

5.1. AIR QUALITY

Potential impacts on air quality from the Proposed Action are assessed by evaluating whether it would cause an exceedance over the NAAQS as discussed in Sections 4.1 and 5.2.1 below. In accordance with the FAA *Aviation Emissions and Air Quality Handbook* Section 4.1.2 (*Step 2: Select the Assessment Methodology*), air quality assessment is not likely required for an obstruction removal project. Jefferson County is listed as an attainment area, which is an area possessing monitored outdoor air concentrations within the NAAQS.

Significant Impact Threshold

Potentially significant air quality impacts would occur if a proposed project caused pollutant concentrations to exceed one or more of the NAAQS for any of the periods analyzed or to increase the frequency or severity of any such existing violations.

5.1.1. No Action Alternative

The No Action alternative assumes that the Proposed Action is not implemented; therefore, temporary, and short-term emissions associated with the obstruction removal activities would not occur.

5.1.2. Preferred Alternative

Construction Phase

The removal of obstructions on and off airport property, combined with land acquisition is proposed solely to improve the safety of existing operations involving Runways 7-25 and 10-28 protection zones and surfaces.

Since obstruction removal mainly consists of selective tree removal that is spread out across on and off-airport property, it is unlikely that large areas of exposed soils would be generated by the Proposed Action. The Proposed Action would result in temporary, short-term, and non-significant changes in air emissions from sources such as exhaust emissions from non-road construction equipment and power tools involved in obstruction removal activities. The obstruction removal construction activities are expected to take place from November 1 through March 31 and is therefore considered short-term in duration.

Particulates would be the main air pollutant of concern (temporary) for the obstruction removal phase, from related activities such as vegetation clearing, chipping of vegetative debris and equipment movement on terrain and unpaved areas. On-road vehicles include those associated with transport and delivery of supplies, materials, and equipment to and from the site, debris management and hauling, and construction workers' trips.

Operation Phase

The Proposed Action does not result in changes to the airside or landside operations at the Airport. Consequently, no emission increase in connection to the Airport's operation is anticipated from the Proposed Action.

Mitigation Measures

To ensure impacts remain at or below less-than-significant adverse levels, emissions would be further minimized and reduced through the implementation of best management practices (BMPs) and reasonably available control measures, such as:

- Water spraying for dust suppression and prevent fugitive dust from becoming airborne.
- Maintaining vehicles in good working conditions.
- Limiting engine idling by turning off engines after three (3) to five (5) minutes of inactivity.
- Decreasing vehicle speed limits while onsite to reduce fugitive dust generation and obeying posted vehicle speed limits while off-site.
- Construction contractors would be required to use properly maintained and operated construction equipment.

These best management practices would minimize any air quality effects associated with construction of the project. Ground disturbance would be minimal and exposed soils would quickly re-vegetated following completion of construction activities in designated areas.

5.1.3. Significance Analysis

The Proposed Action would not increase or alter aircraft operations or passengers or induce the need to change the aircraft fleet; aircraft emissions would remain unchanged.

Construction contractors would be required to use properly maintained and operated construction equipment. If necessary, water would be applied to unpaved or unvegetated surfaces to minimize airborne dust during construction and disturbed areas would be revegetated to minimize particulates. These mitigation efforts/BMPs would minimize any air quality effects associated with construction of the project.

The Proposed Action is not of a magnitude that would jeopardize attainment status. The potential effects from the project would be less than significant. The Proposed Action does not exceed the Significant Impact Threshold and does not have the potential to exceed the NAAQS established by the USEPA. Given the small scale of the project and location of obstruction removal areas, fugitive dust and particulate emissions are expected to be negligible.

In addition, the Proposed Action has been considered within the context of GHG Emissions based upon FAA Order 1050.1E, Change 1, Guidance Memo #3. There are currently no standards for GHG emission applicable to aviation. See Section 5.4 for further discussion of GHGs and climate.

5.2. BIOLOGICAL RESOURCES

Potential impacts to biological resources resulting from construction and operation activities of the Proposed Action were evaluated in the following section.

Significant Impact Threshold

According to Exhibit 4-1 of FAA Order 1050.1F, FAA's significance threshold for biological resources is when the USFWS or the National Marine Fisheries Service determines that the action would be likely to jeopardize the continued existence of a federally-listed threatened or endangered species, or would result in the destruction or adverse modification of federally-designated critical habitat. The FAA has not established a significance threshold for non-listed species. However, the FAA established factors, listed below, to consider when evaluating potential environmental impacts.

Based on the information provided throughout this section, the No Action and Proposed Action would not have the potential to cause the following:

- A long-term or permanent loss of unlisted plant or wildlife species, i.e., extirpation of the species from a large project area (e.g., a new commercial service airport);
- Adverse impacts to special status species (e.g., state species of concern, species proposed for listing, migratory birds, bald and golden eagles) or their habitats;
- Substantial loss, reduction, degradation, disturbance, or fragmentation of native species' habitats or their populations; or

- Adverse impacts on a species' reproductive success rates, natural mortality rates, non-natural mortality (e.g., road kills and hunting), or ability to sustain the minimum population levels required for population maintenance.

5.2.1. No Action

The No Action alternative for the proposed project would not involve vegetation removal, and therefore, there would be no negative impacts to biological resources.

5.2.2. Preferred Alternative

A variety of low-quality and fragmented habitats subject to human and airport activities occur within the on-airport obstruction removal areas. Examples of these activities include periodic maintenance grasslands per FAA requirements. Most of the on-airport obstruction removal areas consist of patches of forests or forested areas contiguous to a larger forest/scrub-shrub wetland complex. All on-airport obstruction removal areas abut maintained airfield grasslands. Off-airport obstruction removal areas consist of vacant forested land, in some cases interspersed with wetlands, and wooded residential properties, and patches of forested land. The majority of off-airport obstruction removal areas also maintained airfield grasslands or are contiguous to successional shrubland and scrub-shrub wetland complexes. As identified by the NYNHP New York Nature Explorer, there are no significant natural communities, which include rare or high-quality wetlands, forests, grasslands, ponds, streams, and other types of habitats, ecosystems, and ecological areas, in or within the vicinity of the project area. Therefore, based on the latter and field observations the habitats identified within the project area can be considered common and abundant in the vicinity of the project area and within New York State.

The NYNHP identified two fish species, Iowa darter and bridle shiner, as being located near the project area. However, the proposed obstruction removal would not impact surface waters. If necessary, appropriate soil erosion and sediment control measures, such as silt fence, would be implemented during construction to minimize introduction of sediment into downstream waterways, and therefore, impacts to these species are not anticipated.

Back's Sedge

According to the NYNHP, back's sedge grows primarily in dry, rocky deciduous, mixed, or evergreen open forests or woodlands, often over limestone. Open canopied forests are preferred but it also grows in more forested as well as more open habitats. Obstruction removal areas have the potential to support back's sedge habitat. Prior to vegetation obstruction removal, areas would be surveyed by a qualified environmental scientist for the presence of back's sedge. If present, the contractor would be notified and the area would be demarcated with highly visible temporary flagging or fencing, to ensure plants are protected and not inadvertently damaged during construction.

Henslow's Sparrow

According to the *NYS Breeding Bird Atlas* (2000-2005), possible and probable occurrences of Henslow's sparrow are located north of the project area. Generally, its habitat consists of fallow, weedy, often moist fields and meadows. The Proposed Action include acquisition of agricultural

land (hayfield) located on the Runway 10 end. The agricultural land would not be disturbed under the Proposed Action and agricultural use of the land would be allowed following acquisition. The Proposed Action, including obstruction removal, would not involve the disturbance of grasslands and therefore, negative impacts to the species is not anticipated. Temporary, short-term, noise impacts may occur during the obstruction removal. However, obstruction removal would occur November 1 through March 31, outside of the bird's breeding season. Converting the vegetative obstruction areas to meadows would potentially provide habitat for the sparrow and thereby benefit the species.

Short-eared Owl

According to the 2000-2005 *NYS Breeding Bird Atlas* (2000-2005), the short-eared owl was recorded northwest of the project area. Short-eared owl prefer open sites including grasslands and marshlands that support small rodents. The owl is found in large tracts (>124 acres) of open country including prairies, marshes, dunes, and tundra. They nest on the ground protected by grasses. Most of the nest sites recorded in recent years have been found on farms, typically in active hayfields or pastures. New York is at the southern edge of the owl's breeding range. Northern populations are believed to be highly migratory and they are more common as winter residents in NYS. As discussed above, the Proposed Action would not involve the disturbance of grasslands and therefore, impacts to the species is not anticipated. Temporary, short-term, noise impacts may occur during the obstruction removal.

Bald Eagle

Bald eagles typically nest in forested areas adjacent to bodies of water and heavily developed areas. They prefer to nest in tall conifer trees, like white pine (*Pinus strobus*). According to the 2000-2005 *NYS Breeding Bird Atlas* (2000-2005), the bald eagle was recorded west of the project area. Airport personnel have not observed bald eagles on Airport property. Additionally, a *Wildlife Hazard Assessment* was conducted in 2012 and did not identify the presence of bald eagles on Airport property. The wooded obstruction removal areas are not located immediately adjacent to a large body of water. The westernmost obstruction removal area is composed of a mixture of deciduous and coniferous trees and is located approximately 0.85 mile from the Muskellenge Bay of Lake Ontario. Due to the constant Airport activity and distance from Lake Ontario, it is unlikely bald eagles are nesting within the obstruction removal areas. Also, bald eagle nests were not observed during the field reconnaissance. Prior to tree removal, areas would be surveyed by a qualified environmental scientist to confirm there are no bald eagle nests.

Indiana Bat and Northern Long-Eared Bat

During summer months, NLEBs and IBats roost singly or in colonies beneath bark, in cavities, or in crevices of both live and dead trees, typically greater than 3 inches in diameter. Suitable roosting habitat for NLEBs and IBats is potentially present in the forested and treed areas on and in the vicinity of the Airport property. NLEBs and IBats may also transit other portions of the Airport property for foraging or other transient purposes.

The Proposed Action involves the removal of approximately 51.93 acres of tree obstructions, including fragmented forested and scrub/shrub areas and scattered trees in residential areas.

A preliminary habitat evaluation of the project area indicated the presence of suitable roosting habitat for both bat species.

In order to further avoid or minimize the possibility of incidental impacts to both bat species, the following measures would be implemented as per USFWS Final 4(d) rule, published in the Federal Register on January 14, 2016:

- Tree removal would be limited to November 1 through March 31 to avoid direct impacts to potential occupied roost trees.
- Maintain construction activities within authorized project boundaries.

Prior to removal of any tree clusters a field inspection would be conducted to discard the presence of maternity roosting. The following USFWS recommendations would be followed if the field conditions become applicable.

- Avoid tree removal within 150 feet of a known occupied maternity roost tree during the pup season (June 1 through July 31)
- Avoid tree removal within 0.25 mile of a hibernaculum at any time of the year.

5.2.3. Significance Analysis

Most of the obstruction removal project areas consists of a mixture of fragmented forest adjacent to successional shrubland and maintained airfield, and forested residential areas. As discussed above, conservation measures would be taken to avoid, reduce, or eliminate adverse effects to the potential threatened, endangered, and migratory species that may be utilizing the project areas. Tree removal would be limited to November 1 through March 31 to avoid direct impacts to individual bats and potential occupied roost trees. Implementation of this tree clearing timing restriction would also provide protection to migratory birds during the nesting season. Additionally, prior to vegetation obstruction removal, areas would be surveyed by a qualified environmental scientist for the presence of threatened/endangered species and areas would be avoided if necessary.

Substantial loss, reduction, degradation, disturbance, or fragmentation of native species' habitats or their populations is not anticipated. Based on the above evaluation and measures to avoid, minimize, and mitigate impacts, it is anticipated that the Proposed Action is not likely to jeopardize the continued existence of listed threatened or endangered species or adversely affect biological resources.

5.3. CLIMATE

Climate change is a global phenomenon that has been attributed to increasing concentrations of GHGs in the atmosphere. GHGs include CO_2, CH_4, N_2O, hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF6).

Under EO 13693, *Planning for Federal Sustainability*, federal agencies must make efforts to measure, report, and reduce their GHGs emissions from direct and indirect activities.

Significant Impact Threshold

The FAA has not identified a significance threshold for GHG emissions as there is no current accepted method of determining the level of significance applicable to airport projects given the small percentage of emissions they contribute.

The No Action alternative assumes that the Proposed Action is not implemented; therefore, temporary, and short-term emissions associated with temporary obstruction removal activities from construction equipment would not occur. Therefore, the No Action alternative for the proposed project would not negatively impact climate.

5.3.1. Preferred Alternative

The Proposed Action would not result in any alteration or modification to the Airport footprint or airfield operations and would not promote activities that could permanently change GHG emissions.

Due to the short-term construction and temporary nature of the Proposed Action, qualitative instead of quantitative analysis of potential impacts have been considered. Approximately 52 acres of tree obstruction removal is proposed under the Preferred Alternative. The 52 acres, consisting of scattered wooded areas and individual trees, act as a carbon sink providing biological carbon sequestration. Carbon sequestration would decrease as a result of tree removal; however, the obstruction removal areas would remain vegetated thus acting as a carbon sink as compared to non-vegetated surfaces.

5.3.2. Significance Analysis

The Proposed Action would create temporary construction emissions from the removal of tree obstructions. However, it is temporary in nature and is a small percentage of emissions compared to total Airport emissions. Forested areas are abundant in the vicinity of the Proposed Action and therefore, proposed removal of the potential carbon sink from the tree obstructions would not cause a significant change or impact to climate in the area surrounding the Airport. In addition, some vegetative regrowth would occur and be allowed as long as it does not penetrate the navigable airspaces.

In addition, measures are included in the construction of the Proposed Action that would help minimize and reduce GHGs. These would include the emission reduction measures discussed in Section 5.1.2.

5.4. FARMLAND

Impacts to farmlands from airport projects typically involve the conversion of farmlands to non-agricultural use. As discussed in Section 4.6 and as shown on **Figure 4-3**, the Proposed Action project area contains farmlands.

Significant Impact Threshold

A significant impact would occur when the Farmland Conversion Impact Rating score ranges between 200 and 260 points and whether the project has the potential to convert important farmlands to non-agricultural uses.

5.4.1. No Action Alternative

The No Action alternative for the proposed project would not impact farmlands.

5.4.2. Preferred Alternative

Federal Farmland Protection

The FPPA requires federal agencies to consider the adverse effects their programs may have on the preservation of farmland and to review alternatives that could minimize any unnecessary and irreversible conversions of farmland. If the proposed federal project action involves the acquisition of farmland that would be converted to nonagricultural use, it must be determined whether any of that land is eligible for protection under the FPPA. The USDA and the NRCS developed criteria to evaluate the effects of federal programs on the conversion of farmland. Land subject to the provisions of the FPPA is not necessarily actively farmed. Rather, the FPPA applies to the soils present on a property. Farmland protected by the FPPA is either prime farmland that is not already committed to urban development or water storage, or unique farmland, or farmland of statewide or local importance. There are a number of exemptions to the FPPA; however, it is not applicable if any of the following conditions apply:

- The land was purchased prior to August 6, 1984, for purposes of being converted,
- Acquisition does not directly or indirectly convert farmland,
- The land is not prime farmland as defined in the FPPA,
- The land is not unique farmland, or
- The land is not farmland of statewide or local importance.

The aforementioned exemptions to the FPPA are further detailed in its implementation guidelines. NRCS procedures for implementing the FPPA direct that prime farmland which is zoned or planned for industrial or commercial use is not covered by the Act (NRCS, General Manual Section 310, Subpart A, Section 403.4(b)(1)). The FPPA does not apply to land that has already been committed to non-agricultural development in a zoning ordinance or comprehensive plan. Nor does it apply to land already committed to “urban development or water storage”.

If a conversion to non-agricultural use includes a farm or may include land protected by the FPPA, a Farmland Conversion Impact Rating score must be established using the NRCS Land Evaluation and Site Assessment system.

Land classified as farmland is located within the Proposed Action project area. However, there are no actively farmed soils within the Airport property. A majority of the Airport property has already

been previously committed to urban development or current airport utilization and on-airport obstruction removal would not be subject to the FPPA regulations.

Where land/easement acquisitions are proposed, agricultural activity would still be permissible within those areas. Agricultural uses would still be allowed as long as they are compatible with FAA regulations and guidance for avigation surfaces and RPZs.

5.4.3. Significance Analysis

Since the Proposed Action would not convert non-Airport property that is actively cultivated or used for agricultural purposes, a farmland conversion evaluation is not required. Therefore, no coordination was initiated with the NRCS to review the Proposed Action for impacts to farmland and the provisions of FPPA would not apply. Based on the above information, impacts to farmlands are not anticipated.

5.5. HAZARDOUS MATERIALS, SOLID WASTE, AND POLLUTION PREVENTION

The FAA 1050.1F Desk Reference states that the EA should describe anticipated waste to be generated as a result of the Proposed Action; waste handling and disposal requirements; identify if waste disposal would impact the capacity of the disposal facility; and determine whether the Proposed Action would interfere with ongoing remediation of contaminated sites within the project area or in the immediate vicinity.

Significant Impact Threshold

The FAA has not established a significance threshold for hazardous materials, solid waste, or pollution prevention. However, FAA has identified the following factors to consider:

- Violate applicable federal, state, tribal, or local laws or regulations regarding hazardous materials and/or solid waste management;
- Involve a contaminated site (including, but not limited to, a site listed on the NPL);
- Produce an appreciably different quantity or type of hazardous waste;
- Generate an appreciably different quantity or type of solid waste or use a different method of collection or disposal and/or would exceed local capacity; or

  Adversely affect human health and the environment.

5.5.1. No Action Alternative

The No Action alternative would involve no ground disturbance or tree removal and therefore, would have no impact on any hazardous materials, solid waste, or pollution.

5.5.2. Preferred Alternative

Hazardous Materials

As discussed in Section 4.7, review of the NETROnline ERRs indicated none of the ERR findings are located within the Proposed Action project area.

In addition, no suspected hazardous wastes or contaminated materials were identified within or adjacent to the project area during the course of the preliminary hazardous waste and contaminated materials screening of the project area.

The potential risk for involvement with documented or undocumented inactive hazardous waste or contaminated materials is considered to be unlikely due to the nature of the project. However, if hazardous materials are encountered during project construction, appropriate state and federal agencies would be notified and the material would be disposed of in accordance with applicable regulations.

Solid Waste

Solid waste generated by the project will be primarily limited to "green waste" from the approximate 52 acres of vegetation/tree obstruction removal. All green waste generated as a result of the project will be left on site for natural biodegradation or landowner reuse, or will be moved off-site for reuse or composting. Coordination with landowners would occur to determine their preference for reusing cut trees. There will be no significant landfill disposal of solid wastes as a result of this project.

Pollution Prevention

The Proposed Action would disturb greater than one acre; therefore, a NYSDEC SPDES for Stormwater Discharges from Construction Activity General Permit would be required. BMPs, included below, would be utilized to assure that construction impacts are minimized to the extent practicable. Permit conditions and approvals would ensure the proposed activities would not violate state water quality standards as promulgated in 6 NYCRR Part 700.

To further avoid and minimize the risk of unanticipated incidental impacts the following pollution prevention and BMPs would be implemented:

- Dispose of debris and solid waste generated by the Project according to applicable federal, state, and local regulations;
- Stage and operate construction equipment in authorized areas;
- Perform proper equipment maintenance and routine inspections to reduce the risk for incidental releases of fluids;
- Follow manufacturer's specifications when maintenance equipment or storing hazardous material (e.g., batteries, fluids, lubricants, solvents, paints, etc.);
- Implement spill and leak prevention and response procedures for equipment;
- Maintain spill kits to rapidly respond to and limit impacts from accidental releases of vehicle fluids;

- Report releases of regulated quantities and perform cleanup according to applicable regulatory requirements; or
- Manage solid wastes in designated areas and establish routine pickup for disposal according to applicable regulations.

5.5.3. Significance Analysis

Due to the nature of the project, it is unlikely that the Proposed Action would create any hazardous materials or that pollution would be encountered. Minimal solid waste during from the obstruction removal will be created but is temporary and will not lead to an overall permanent increase. Following completion of the obstruction removal phase, the Proposed Action is not expected to result in solid waste generation. Taking into consideration the scope of work, the Proposed Action does not have the potential to exceed the significant impact factors.

5.6. LAND USE

Airport development projects have the potential to cause off-airport land use impacts. The compatibility of existing and planned land uses in the vicinity of an airport is usually associated with the extent of an airport's noise impacts. However, it can also be associated with disruptions of the surrounding community, residential or business relocations, changes in vehicular traffic patterns, induced socioeconomic effects, and even off-airport effects from on-airport facilities such as lighting units, which are addressed in Sections 5.11 and 5.12. Noise effects are regulated under *49 U.S. Code Section 47501, et seq.* (formerly the *Aviation Safety and Noise Abatement Act* of 1979) and addressed in Section 5.11. According to the *Airport and Airway Improvement Act* of 1982 (section 511(a) (5)), the EA shall include documentation that demonstrates that the Airport sponsor has, to the extent reasonable, taken the appropriate measures to place restrictions on the use of land, adjacent to or in the immediate vicinity of the Airport, to ensure that existing and planned land-uses would remain compatible with normal airport operations, including the landings and takeoffs of aircraft.

Significant Impact Threshold

The FAA has not established a significance threshold for land use, and the FAA has not provided specific factors to consider in making a significance determination for land use. A determination of significant impacts is typically based on the significance of other impacts.

5.6.1. No Action Alternative

The No Action alternative does not meet the purpose and need and would not allow the Airport to obtain control of the land in the approach surfaces and RPZ. The No Action assumes that the obstructions currently affecting and penetrating the airspace would remain unchanged and does not provide protection for the property on the ground.

5.6.2. Preferred Alternative

As discussed in Chapter 3 of this EA, it is recommended that approximately 154 acres of land be acquired in easements to protect the ROFA, RPZs, Departure RESSs, and MALSR LOS of the Airport.

Additionally, approximately 52 acres of tree obstruction removal (both on- and off-airport) are recommended for trees penetrating the airspace surrounding the Airport. Obstruction removal activities are proposed on and off airport property, as shown on **Figure 1-3**. Acquisition of avigation easements would be required for the Airport to manage existing, as well as future obstructions identified within each proposed easement. The avigation easements would be established by mutual agreement with property owners, following FAA guidelines. **Table 2-3** provides a breakdown of the acquisitions and obstruction removal for each runway end.

5.6.3. Significance Analysis

Obstruction removal and land easement/acquisition would allow the Airport to own or control the land in the approach and departure surfaces, LOS, and RPZs, thus preventing future incompatible activities, such as residential developments, tall structures, bird/wildlife attractants, etc. Implementation of the Proposed Action would not disrupt the community or relocate residences, induce negative socioeconomic impacts. Overall, no significant impact to land use compatibility is anticipated with implementation of the Proposed Action. The Proposed Action would be executed following FAA guidelines and potential effect would be less than significant.

5.7. NATURAL RESOURCES AND ENERGY SUPPLY

Significant Impact Threshold

The FAA has not established a significance threshold for natural resources and energy supply. The FAA has identified the following factor to consider when determining potential impacts: the action would have the potential to cause demand to exceed available or future supplies of these resources.

5.7.1. No Action Alternative

The No Action alternative would not utilize any natural resources or energy supply.

5.7.2. Preferred Alternative

As compared to major construction projects, the Proposed Action would utilize a minimal amount of readily available natural resources (e.g. gas/diesel) for the temporary duration (2-3 months) of construction activity related to the tree obstruction removal. Natural resources would include petroleum for fuel consumption by construction equipment. BMPs, such as limiting engine idling and maintaining equipment in good working condition, would be utilized to minimize the use of petroleum.

The usage of energy utilities or water supplies/treatment are not proposed and therefore, there would be no changes to the current usage. Usage of natural resources would not significantly increase post-construction. Routine maintenance, including mowing and/or brush hogging, of obstruction removal areas on-airport property would utilize petroleum for equipment.

5.7.3. Significance Analysis

Overall, the Proposed Action is not of the scale or type to have a significant effect on natural resources. The use of energy supply, utilities, or water is not proposed. Therefore, based on the above information,

the Proposed Action would not have the potential to cause demand to exceed available or future supplies of natural resources.

5.8. NOISE AND NOISE COMPATIBLE LAND USE

This section of the EA addresses potential noise impacts of the Proposed Action.

Significant Impact Threshold

The following is FAA's significance threshold for noise: *The action would increase noise by DNL 1.5 dB or more for a noise sensitive area that is exposed to noise at or above the DNL 65 dB noise exposure level, or that will be exposed at or above the DNL 65dB level due to a DNL 1.5dB or greater increase, when compared to the no action alternative for the same timeframe.*

5.8.1. No Action Alternative

The No Action alternative would not create any noise beyond existing conditions and therefore would not cause noise related impacts.

5.8.2. Preferred Alternative

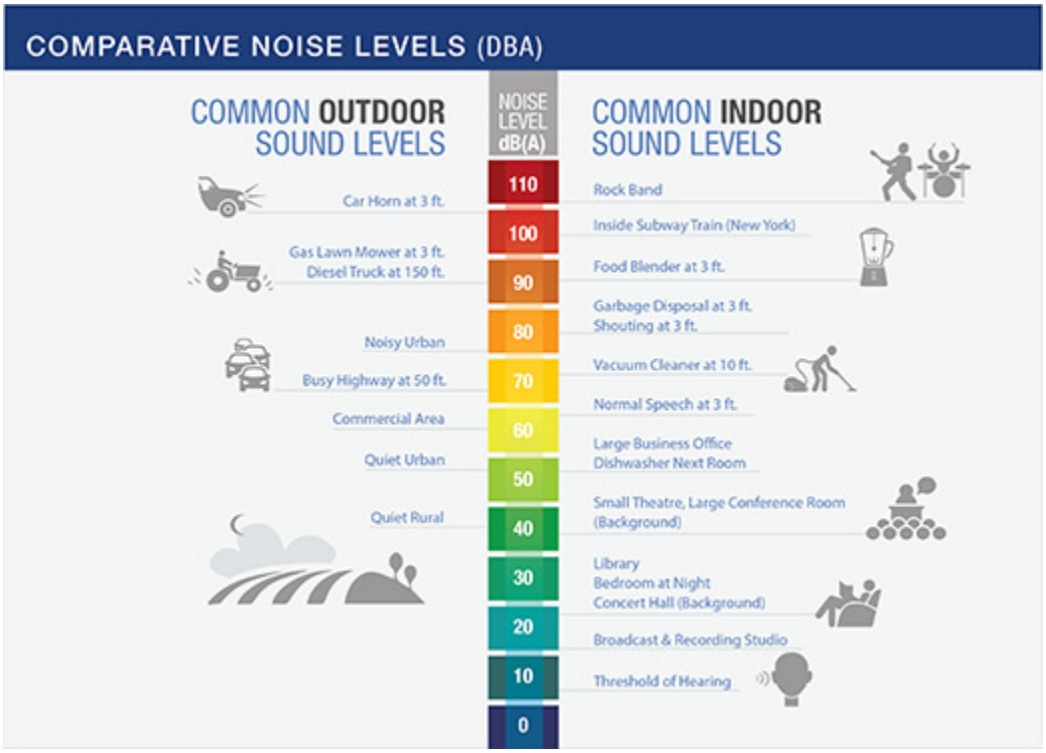
The Proposed Action is not anticipated to increase aircraft operations, nor change runway lengths, runway alignments, instrument procedures, navigational equipment, or other factors that affect airfield capacity and alter current noise levels. In addition, the Proposed Action does not involve alteration or modification to the runways and any of the project elements would not result in a change to the current noise contours for ART; therefore, a detailed noise analysis is not required.

The Proposed Action would cause a temporary increase in levels of background noise during the obstruction removal activities, particularly from the operation of commercial power tools, trucks, and heavy equipment. The majority of obstruction removal areas are not located in the vicinity of sensitive noise receptors, such as residences. However, construction activities may be audible from nearby residences located on NYS Route 12F on the Runway 25 end that are within 300 feet of tree removal areas and a single residence on NYS Route 180 on the Runway 10 end, which is over 800 feet from the nearest tree removal area. A majority of the obstruction removal along NYS Route 12F includes individual trees or small groupings, which would not take long to remove (i.e. one week). Obstruction removal would occur over an approximate two to three month period and be carried out during normal daylight hours, typically 7AM – 5PM.

The short-term and temporary noise emissions to be generated during obstruction removal would be similar to landscaping, harvesting, and debris management activities that involve power tools, such as leaf blowers, chain saws, pole saw trimmers, chipper/shredder and other heavy equipment associated with small construction projects. Construction noise for the proposed obstruction

removal would be intermittent, depend on the location and functions of the equipment, and would be temporary and short-term in duration. Common outdoor and indoor sound levels are provided in the

Figure 5-1: Common Sound Levels



Source: FAA (https://www.faa.gov/regulations_policies/policy_guidance/noise/basics/)

According to the NYSDEC Program Policy *Assessing and Mitigating Noise Impacts*, at distances greater than 50 feet from a sound source, every doubling of the distance produces a six (6) decibels (dB) reduction in the sound ("Sound Level Reduction Over Distances"). Therefore, a sound level of 70 dB at 50 feet would have a sound level of approximately 64 dB at 100 feet. At 200 feet, sound from the same source would be perceived at a level of approximately 58 dB. Typical equipment used for obstruction removal including chainsaws, stump grinder, loader, feller-buncher, skidder, harvester, chipper/shredder, and trailer, would not exceed noise levels of 85 dBA at 50 feet based on data provided by the Federal Highway Administration.

Construction equipment would be operated in compliance with OSHA standards. Construction contract documents would require construction equipment to be properly equipped and maintained in order to minimize off-site construction noise impacts in accordance with ECL and NYSDEC Program Policy for *Assessing and Mitigating Noise Impacts*.

To further minimize and limit possible impacts, various BMPs would be put in place such as:

- Use of noise attenuation devices in construction equipment.

- Heavy machinery to be used would be maintained in optimal operating conditions to control noise.
- Maintain mufflers and sound shielding on construction equipment.
- Provide routine maintenance to equipment according to the manufacturer's specifications.
- Minimize equipment idling and shut down construction equipment when not in use.
- Operate construction equipment according to the manufacturer's specifications.
- Construction activities would be carefully coordinated with Airport and the contractor(s).
- Notices to Airmen (NOTAM's) would be issued by Airport management as needed.

Once the construction phase is finalized the noise levels would return to existing conditions.

5.8.3. Significance Analysis

Taking into consideration the scope of work, its location, distance from sensitive receptors and no changes in airport capacity or aircraft fleet, potential effects would be less than significant and would not exceed the significance threshold.

5.9. SOCIOECONOMIC, ENVIRONMENTAL JUSTICE, AND CHILDREN'S HEALTH AND SAFETY RISKS

Social impacts are often associated with relocation or other community disruption, transportation, planned development, and employment. This section discusses impacts associated with the No Action and Action/Preferred Alternative.

Significant Impact Threshold

The FAA has not established a significance threshold for socioeconomic, environmental justice, and children's health and safety risks. However, the FAA has provided factors to consider that include, but are not limited to, the following in which the Proposed Action would have the potential to:

- Induce substantial economic growth in an area, either directly or indirectly (e.g., through establishing projects in an undeveloped area);
- Disrupt or divide the physical arrangement of an established community;
- Cause extensive relocation when sufficient replacement housing is unavailable;
- Cause extensive relocation of community businesses that would cause severe economic hardship for affected communities;
- Disrupt local traffic patterns and substantially reduce the levels of service of roads serving an airport and its surrounding communities; or
- Produce a substantial change in the community tax base.

5.9.1. No Action Alternative

The No Action assumes the existing Airport obstructions remain unchanged and does not address the obstacles to the safety areas and surfaces regulated by FAA. The No Action also assumes proposed acquisition of land does not occur, which could have a negative impact if the landowner is willing to sell their property to the County.

5.9.2. Preferred Alternative

Socioeconomics

The Proposed Action would involve the acquisition of land and/or avigation easements of approximately nine landowners of off-airport property. **Figure 1-3** illustrates the proposed acquisition and **Table 5-1** below provides a breakdown of proposed acquisition.

Based on conversations with affected landowners during and after landowner meetings, the Proposed Action would involve the relocation of four willing landowners that reside on the property proposed for acquisition on State Route 12F on the Runway 25 end. Information on proposed land/easement acquisition provided throughout this EA is based on landowner preference during the development of this EA.

Acquisitions would be conducted in accordance with FAA Order 5100.37 *Land Acquisition and Relocation for Airport Development Projects* and FAA AC 150/5100-17, *Land Acquisition and Relocation Assistance for Airport Improvement Program Assisted Projects.* Properties proposed for acquisition in fee would involve appraisals to determine the fair market value of the property to be acquired prior to the initiation of negotiations between the County and landowner.

Table 5-1: Off-Airport Acquisition

Runway Approach	Parcel ID	Total Property Acreage[1]	Land Acquisition	Easement Acquisition
7	81.00-1-26.1	170	6.53	
25	81.00-1-12.1	1.64	1.64	
25	81.00-1-12.2	2.0	2.0	
25	81.00-1-12.3	1.4	1.4	
25	81.00-1-13.23	4.4	4.4	
25[2]	81.00-1-13.1	33.49	0.92	
	81.00-1-14.1	29.93	7.11	
10	81.00-1-1.1	127.0	65.3	
28[2]	82.00-3-6.2	145.3[3]		0.96
	82.00-3-7.3	80.56		13.99
28	73.18-1-47.2-701	49.9	49.9	
Total		446.89	139.2	14.95

[1] *Acreage based on Jefferson County Real Property Tax Services assessment information.*
[2] *Indicates single landowner of property.*
[3] *Total includes land as part of eminent domain proceedings totaling 60.46 acres.*

The majority of land proposed for acquisition is comprised of vacant land. The remainder is occupied residential land. There would be a small loss of community tax base (Jefferson County and General Brown School District) due to the proposed acquisitions. Proposed land acquisition would reduce the community tax base by approximately 0.2% based on 2020/2021 data provided by Jefferson County. Therefore, the proposed acquisitions would not produce a substantial change in the community tax base.

Avigation easements would be established by mutual agreement with off-airport landowners, following FAA guidelines. **Table 2-3** provides additional details, such as acreages, of landowner preference for acquisition of land/easement or easement enhancement.

The Proposed Action would not require alterations to public services including fire and police protection, education and utility services. The acquisitions and obstruction removal would provide employment opportunities and temporary jobs for appraisals associated with acquisitions and tree removal construction activity. Land acquisition typically includes services such as, appraisals, title research, etc.

With the Proposed Action, ART would continue to support existing Airport jobs, general aviation operations, local economy, and air transportation needs in Jefferson County.

Environmental Justice

As stated in Section 4.12.2, the nearest potential environmental justice area is located in the city of Watertown and the community surrounding the Airport is not considered a predominantly low income or minority population.

Off-airport property with existing avigation easements is proposed for acquisition in fee on the Runway 25 end along State Route 12F. The proposed acquisition is based on the landowner's preference and therefore, would not impact potential low-income populations.

Children's Health and Safety Risks

EO 13045, *Protection of Children from Environmental Health Risks and Safety Risks*, defines the risks to children's safety that are attributable to products or substances that the child is likely to touch or ingest including the air we breathe, the food we eat, the water we drink or use for recreation, and the soil we use to grow food.

The Proposed Action has been evaluated for their potential to have a disproportionate effect on children's environmental health or safety, including, but not limited to, potential impacts from water quality, air quality, and noise.

As discussed in Section 4.12.3, the Proposed Action is not located in the vicinity of schools, daycares, or other facilities which children would utilize. The presence of children residing in residences in the vicinity of the Proposed Action is low based on observations during site visits. Due to the nature of the project (i.e. short-term and minor construction), potential environmental impacts, such as noise, to potential children residing in nearby residences, would be minimal.

Traffic

Proposed construction activity for obstruction removal would mostly occur on Airport property, County property, and property controlled by the County under avigation easements. A small amount of obstruction removal would occur within the State Route 12F right-of-way and work would be completed in a short period of time (i.e. less than one week). Impacts to traffic for right-of-way work is expected to be minimal and temporary in nature.

5.9.3. Significance Analysis

The scope of the Proposed Action would not promote shifts in populations, incomes, and growth patterns; public service demands; negative pressure over business and economic activity, disruption to established neighborhoods, urban proliferation, or changes in transportation patterns.

The Proposed Action is not of the nature or magnitude to have an adverse effect upon the health and safety of children or low-income populations. In addition, mitigation measures as discussed Sections 5.1.2 and 5.8.2 would be utilized to prevent and/or minimize potential impacts.

Any impacts to traffic as a result of the Proposed Action during construction are expected to be negligible and temporary in nature.

Based on the information provided above, the Proposed Action would not result in any socioeconomic impacts, environmental justice, or children's health and safety risks.

5.10. VISUAL EFFECTS

The FAA is required to consider the potential for lighting associated with a proposed development action to become an annoyance to people in the vicinity or interfere with their normal activities. Because most air navigational systems and other airport development actions produce relatively low levels of light intensity compared to background levels, adverse effects on human activity or the use or characteristics of protected properties, when present, are unlikely.

Significant Impact Threshold

The FAA has not established a significance threshold for visual effects. However, the FAA has identified factors to consider, which were evaluated and are discussed below.

Based on the information provided above, light emissions and visual effects would be less than significant. The Proposed Action would not have the potential to:

- Create annoyance or interfere with normal activities from light emissions;
- Affect the visual character of the area due to the light emissions;
- Affect the nature of the visual character of the area, including the importance, uniqueness, and aesthetic value of the affected visual resources; or

- Block or obstruct the views of visual resources, including whether these resources would still be viewable from other locations.

5.10.1. No Action Alternative

The No Action Alternative would not change the existing conditions and tree obstructions would remain; therefore, there would be no impact from light emissions or impacts to visual resources and character.

5.10.2. Preferred Alternative

Light Emissions

According to the FAA 1050.1F Desk Reference, *light emission impacts are typically related to the extent to which any lighting or glare associated with the proposed action or alternative(s) would create an annoyance for people in the vicinity and/or would interfere with their normal activities, including work and recreation*.

The Proposed Action does not include clearing large areas of forested land or land development that would create pathways of additional exposure to existing Airport lighting. Furthermore, the Airport is not located within a high-density residential area that would have a higher degree of sensitivity to light emissions compared to the rural residential area surrounding the Airport. The area surrounding the Airport is sparsely populated with residential properties and businesses.

Obstruction removal activities would involve selective tree cutting within designated obstruction removal areas on-airport and off-airport properties. The majority of tree removal would occur adjacent to the Airport's airfield and would not create annoyance from light emissions to the surrounding community.

Following tree removal there would be few new areas with a line of sight to existing Airport lighting. These areas include residences along State Route 12F on the Runway 25 end. However, most of these residential properties are proposed for acquisition in fee and therefore, there would be no impact.

Trees removed near residential properties along State Route 12F would be replaced with height-appropriate trees or shrubs to provide vegetative screening to avoid or minimize any potential light or visual effects. Specific tree species and locations would be included in the during the obstruction removal design phase. Therefore, any potential impact to the remaining residential property would be mitigated with vegetative screening.

Visual Resources and Character

According to the FAA 1050.1F Desk Reference, *visual resources and visual character impacts are typically related to a decrease in the aesthetic quality of an area resulting from development, construction, or demolition.*

Proposed acquisitions would not affect the character of the surrounding area as they would be similar to the surrounding Airport land use and would remain undeveloped.

Tree obstruction removal is not anticipated to affect the aesthetic quality of areas in the vicinity of the proposed project. For the most part, tree obstruction removal would occur in areas immediately adjacent to the Airport's maintained airfield or meadow and scrub-shrub land. Tree obstruction removal near the Airport's airfield would be similar to existing Airport airfield and scrub-shrub land characteristics.

Farther away from the Airport's airfield, tree removal would consist of small areas along the State Route 12F right-of-way and patches and individual trees northeast of the Runway 25 end. The latter area is surrounded by forested and scrub-shrub land. Trees along this section of State Route 12F are sparse. Therefore, tree removal would not significantly change the overall character of the area.

5.10.3. Significance Analysis

Significant Impact Threshold

Based on the information provided above, light emissions and visual effects would be less than significant. The Proposed Action would not have the potential to:

- Create annoyance or interfere with normal activities from light emissions;
- Affect the visual character of the area due to the light emissions;
- Affect the nature of the visual character of the area, including the importance, uniqueness, and aesthetic value of the affected visual resources; or
- Block or obstruct the views of visual resources, including whether these resources would still be viewable from other locations.

5.11. WATER RESOURCES

The EA must demonstrate that compliance with the State's water quality standards and federal, state, and local permit requirements can be achieved. Design considerations, controls during construction, and other mitigation measures can be implemented to avoid significant impacts to water quality. If the EA and appropriate consultation, with regulating and permitting agencies, demonstrates that water quality standards can be met (i.e., that no special water problem exists and there is no indication of anticipated permit difficulty), it may be assumed that the project would have no significant impact on water quality. The EA shall reflect the results of consultation with regulating and permitting agencies and include a list of permits that would be required by the project.

Significant Impact Threshold

Wetlands and Surface Waters

FAA Order 1050.1F provides significance threshold for wetlands. A significant impact exists if the action would:

- Adversely affect a wetland's function to protect the quality or quantity of municipal water supplies, including surface waters and sole source and other aquifers;
- Substantially alter the hydrology needed to sustain the affected wetland system's values and functions or those of a wetland to which it is connected;
- Substantially reduce the affected wetland's ability to retain floodwaters or storm runoff, thereby threatening public health, safety or welfare (the term welfare includes cultural, recreational, and scientific resources or property important to the public);
- Adversely affect the maintenance of natural systems supporting wildlife and fish habitat or economically important timber, food, or fiber resources of the affected or surrounding wetlands;
- Promote development of secondary activities or services that would cause the circumstances listed above to occur; or
- Be inconsistent with applicable state wetland strategies.

FAA Order 1050.1F provides significance threshold for surface waters. A significant impact exists if the action would:

- Exceed water quality standards established by Federal, state, local, and tribal regulatory agencies; or

  Contaminate public drinking water supply such that public health may be adversely affected.

5.11.1. No Action Alternative

The No Action alternative assumes that existing conditions would remain unchanged and therefore, would have no impact to water resources.

5.11.2. Preferred Alternative

Wetlands

The obstruction removal portion of the project would involve the selective cutting and clearing of a total of approximately 15.7 acres of vegetation within wetland areas. Vegetation removal of approximately 11.33 acres would take place within delineated wetlands on Airport owned property. Approximately 3.48 acres of obstruction removal would take place within wetland areas previously delineated by others on the current Jefferson County IDA owned lands east of the Runway-25 end. An additional estimated 0.89 acre of obstruction removal will take place within wetland areas on off-airport property. It should be noted that additional wetlands may exist on privately owned lands where properties were not accessed. Further site reconnaissance to determine the presence of wetlands on off-airport properties would occur during the obstruction removal design phase.

Wetlands identified on the Airport and in the vicinity of the obstruction removal areas are shown on **Figures 4-6** and **4-7**.

To avoid and minimize potential impacts to wetlands, the following BMPs and avoidance and minimization measures (AMMs) would be implemented during construction in wetland areas:

- Wetland boundaries would be flagged and marked on the ground to assist contractors in understanding the physical demarcation of wetland and upland areas prior to construction.
- Obstruction removal would take place during frozen or dry soil conditions, to the extent possible.
- Only hand equipment (i.e., chainsaw) and low-ground-pressure equipment for selective cutting and clearing of vegetation would be allowed.
- No grubbing or stump grinding would be allowed in wetland areas.
- Cut vegetation would be bucked up into smaller lengths (3-4 ft.) and left in place for natural biodegradation or landowner reuse (based on landowner preference), or would be moved off-site for reuse or composting.
- Equipment travel routes would be de-centralized to avoid soil compaction, rutting and/or long-term understory vegetation damage.
- If necessary, temporary timber matting would be used in areas to avoid rutting from equipment and soil disturbance.
- Efforts would be made to ensure existing native low-growing shrubs are not cut or otherwise inadvertently damaged during construction.
- A site-specific SWPPP would be implemented.
- Routine inspections of the wetland areas would occur throughout the vegetation removal activities to ensure the work does not have more than a *de minimis* (i.e. less than significant) impact.

As long as there is no ground disturbance, such as grubbing/stump removal, the USACE does not regulate vegetation removal within jurisdictional wetlands under the provisions of the CWA, therefore a Section 401 Water Quality Certification and Section 404 Wetlands Permit would not be required for this project.

The Proposed Action would not result in the loss, destruction, or significant degradation of the natural and beneficial values of the wetlands within the project area. In addition, the Proposed Action would not lead to the direct or indirect support of new construction within wetlands. No further actions in regards to Executive Order 11990 are required for the project.

Surface Waters

One ephemeral stream located within the Runway 7 approach end is known to exist in the project area. Additional streams may exist on private lands where access was not granted.

Mechanized equipment would not be allowed to operate within or cross surface waters during construction. Appropriate soil erosion and sediment control measures, such as silt fence, would be implemented during construction to minimize introduction of sediment into downstream waterways.

5.11.3. Significance Analysis

Overall, the Proposed Action avoids impacts to water resources. Design considerations, controls during obstruction removal activities, and other mitigation measures would be implemented to further minimize the possibility of adverse impacts to water resources and water quality.

Due to the nature of the Proposed Action and the information provided throughout Section 5.12, the Proposed Action is not expected to exceed the significance thresholds.

5.12. CUMULATIVE IMPACTS

In determining the significance of the impacts associated with the Proposed Action, it is necessary to consider the overall cumulative impact of projects detailed in the EA and the consequences of other related projects. CEQ regulations, at 40 CFR 1508.7, define cumulative effects as the impact on the environment which result from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions. According to the FAA, cumulative impacts are defined 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". The geographic area of concern for this analysis is generally the Airport property, the properties affected by the proposed land and/or easement acquisition and tree obstruction removal. For some resources, such as socioeconomics, impacts may extend further, and the geographic area of concern is larger. The time period for cumulative effects analysis is the cycle during which the project is expected to affect a resource, ecosystem, or human community.

Recently completed projects at the Airport have included completion of the ARFF building construction, and reconstruction of Runway 7-25 and intersection. Upcoming projects include construction of an air ambulance hangar, land acquisition, installation of MALSR (Runway 28), access road construction, fuel farm replacement, installation of REILs (Runway 25), replacement of PAPIs for Runways 7, 10, 25, 28), electrical vault and generator construction, construction/improvement of terminal parking lot, rehabilitation of Runway 10-28, sanitary sewer construction, and perimeter fence reconstruction.

Overall, projects in the foreseeable future that are not included in the Proposed Action are small and located on previously disturbed airport property and unlikely to create notable environmental impacts; therefore, cumulative impacts would be negligible. The environmental impacts of these potential future Airport projects would be analyzed in separate environmental documents. These projects would be designed to avoid or minimize impacts to sensitive resources on and off-airport property.

5.13. ENVIRONMENTAL CONSEQUENCES SUMMARY

After analyzing the results of the data collected as part of the environmental planning process and compared to the No Action, it is concluded that due to the nature and location of the project and implementation of site-specific BMPs, the Proposed Action would result in limited environmental impacts, not significant to the natural and human environment. Necessary measures and BMPs would be established to further minimize and mitigate any environmental impacts the Proposed Action may have.

6. PUBLIC INVOLVEMENT

Public involvement for development of the Proposed Action and Draft EA was conducted in accordance with FAA Order 1050.1F. The Proposed Action was discussed at numerous meetings and conference calls with the Airport Sponsor.

6.1. PUBLIC INVOLVEMENT

Meetings with a majority of landowners affected by the Proposed Action were held in July 2020. The landowner meetings were held at the Airport Business Center. The landowner meetings provided an overview of the EA and discussed the purpose and need for land and/or easement acquisition and the acquisition process. A general landowner meeting PowerPoint presentation in provided in Appendix H. Landowners were provided with Permission to Inspect Forms for access to the portion of the property covered in the Draft EA. Additional coordination with affected landowners has been conducted throughout the entirety of the Draft EA preparation. Subsequent meetings and coordination with state and federal agencies and FAA were conducted in the early stages of preparation of the EA and throughout to avoid and/or minimize environmental impacts.

A draft of the EA will be made available for public review and comment and a virtual public meeting will be held to provide the public with details of the Proposed Action and the opportunity to provide comments.

Public participation documentation including the public notice, public meeting presentation, public comments, and response to public comments will be provided in Appendix H of this EA.

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7. LIST OF PREPARERS AND REFERENCES

7.1. LIST OF PREPARERS

This Environmental Assessment was prepared by the following professionals (in alphabetical order) involved in the preparation of the document:

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Maresa G. Miller –Environmental Scientist, B.S., Environmental Studies (2001): Slippery Rock University. Project Involvement: Technical writer and EA document preparation.

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Thomas C. Wirickx, QAWB, CE – Senior Environmental Analyst; B.S. Environmental and Forest Biology (1998): SUNY College of Environmental Science and Forestry at Syracuse. Project Involvement: Analysis of Habitat, Endangered Species, Permits, Hazardous Waste and Contaminated Materials.

Jeffrey R. Wood, CSDP – Senior Transportation Manager; B.S. Environmental Studies (1988): SUNY College of Environmental Science and Forestry at Syracuse. Project Involvement: Project Manager, Purpose and Need and Public involvement.

7.2. REFERENCES

6 of New York Codes, Rules and Regulations (NYCRR) Part 182

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CEQ NEPA CFR Part 40 Section 1500

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Additional references provided in reports by others in their appropriate appendices.