

**Draft Final
Environmental Assessment for
Robert LaFleur Airport;
Waterville, Maine**

The airport sponsor is preparing this Environmental Assessment (EA) to document potential impacts associated with acquiring aviation easements and fee simple land purchases, and for mitigating off-airport vegetative obstructions to protected airspace.



Prepared for:
The City of Waterville and the
Robert LaFleur Airport

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February 18, 2015

Sign-off Sheet

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David Nadeau; Associate, Airport Infrastructure

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Purpose and need
February 18, 2015

1.0 PURPOSE AND NEED

1.1 INTRODUCTION

The City of Waterville and the Robert LaFleur Airport (WVL¹) have prepared this Environmental Assessment (EA) to address the potential environmental impacts associated with proposed safety improvement projects to be conducted at WVL. The proposed safety improvement projects subject to this EA include the acquisition of avigation easements and fee simple land purchases, as well as the associated removal and lighting of vegetation that is penetrating the protected airspace surrounding the Airport.

Reference is made to a previous Environmental Assessment prepared for WVL by *New Earth Ecological Consulting* of Saco, Maine in May 2012. That EA was prepared to address the acquisition of six avigation easements for vegetation removal within the protected airspace of Runway 14-32. Those six easement parcels have been included in this current EA as well since the proposed action in the previous EA addressed the removal of only a limited number of trees on each parcel. The current EA's proposed action includes removal of additional vegetation that was not previously addressed.

1.2 PURPOSE AND NEED

Robert LaFleur Airport is a dual runway general aviation facility primarily used by single-engine piston aircraft. The purpose of the projects proposed in this EA is to satisfy Federal Aviation Administration (FAA) safety standards regarding the protection of navigable airspace by removing or lighting vegetative obstructions located on and off airport property.

Previous analyses of existing vegetation in the vicinity of the airport have identified obstructions to the protected airspaces for both Runway 14-32 and Runway 5-23. The need for the projects contained herein is to effectively manage the obstructions, both on and off airport property, in order to comply with FAA Federal Aviation Regulations (FAR) Part 77 and other airspace requirements, and provide the highest achievable degree of safety to aircraft operations.

1.3 SCOPE

This document is to inform regulatory agencies and the public of the likely environmental consequences associated with the proposed actions and their reasonable alternatives. The EA provides the FAA with information necessary to determine whether the impacts associated with the proposed projects has the potential to significantly impact the environment. Based on this determination, the FAA will issue either a Finding of No Significant Impact (FONSI) or the agency

¹ WVL is the FAA identifier for the Waterville Robert LaFleur Airport, used for domestic purposes

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will require the preparation of an Environmental Impact Statement (EIS) to further analyze the proposed project and its associated impacts.

This EA has been developed in accordance with the National Environmental Policy Act of 1969 (NEPA), the Council of Environmental Quality's (CEQ) NEPA regulations (40 Code of Federal Regulations [CFR] §§ 1500-1508), FAA Order 1050.1E, *Environmental Impacts: Policies and Procedures* and FAA Order 5050.4B, *National Environmental Policy Act Implementing Instructions for Airport Actions*.

According to NEPA, all major projects and/or actions funded by the federal government fall into one of three categories:

- Those normally requiring an Environmental Impact Statement (EIS);
- Those normally requiring an EA; and
- Those that are categorically excluded from environmental review.

In summary, projects requiring an EIS are those that are likely to significantly impact the environment. Projects requiring an EA are those that have the potential to impact the environment. Projects that are categorically excluded include those projects that are unlikely to impact the environment.

Typically, obstruction removal activities, such as vegetation removal, stump grubbing, and land grading conducted on airport property are categorically excluded from FAA environmental review as long as those actions do not involve extraordinary circumstances and/or resources protected under "special purpose" laws. Special purpose laws are defined as those federal laws and regulations outside the scope of NEPA, including federal wetland regulations, the Endangered Species Act of 1973, and the National Historic Preservation Act of 1966.

This project however, cannot be categorically excluded as the airport sponsor is proposing the acquisition of avigation easements and land acquisition in fee simple interest to facilitate the removal of obstructions located off airport property. In accordance with NEPA and FAA regulations, off-airport obstruction removal projects utilizing federal funding are subject to review within the context of an environmental assessment. This EA has been prepared to assess potential environmental impacts associated with the acquisition of avigation easements and land acquisition in fee simple interest required for the mitigation of off-airport obstructions to surrounding protected airspace.

description of proposed actions
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2.0 DESCRIPTION OF PROPOSED ACTIONS

2.1 INTRODUCTION

As previously stated in Section 1.2 *Purpose and Need* of this EA, this project has been proposed to address existing safety hazards associated with obstructions to protected air surfaces at WVL. One of the FAA's primary responsibilities includes preventing and minimizing adverse impacts to the safe use of navigable airspace. FAA regulations, including FAR Part 77 *Safe, Efficient Use and Preservation of the Navigable Airspace* and FAA Order 8260.3B *United States Standard for Terminal Instrument Procedures (TERPS)*, establish surface dimensions and identify measures to enhance safe air navigation. Design alternatives presented in this EA have been prepared in accordance with FAA regulations to ensure proposed safety improvement projects provide the highest degree of safety to aircraft operating at the airport.

2.2 LAND/AVIGATION EASEMENT ACQUISITION

2.2.1 Avigation Easement Acquisition

The identification of required avigation easements is the direct result of a comprehensive analysis of the protected airspace above the airport.

Aerial survey data, collected in 2007, was used to perform the obstruction analysis at WVL. This data is compared with air surface elevations to determine the extent of which trees (and other structures) extend into protected airspace. Due to the age of the survey data, all data points that have been identified within 15 feet of protected airspace are considered obstructions for the purpose of this EA, and therefore proposed to be removed or marked using appropriate lighting. It is assumed that each data point in the analysis represents a grouping of trees of approximately the same height rather than individual trees. The obstruction analysis evaluated pertinent regulated air surfaces at the airport intended to be maintained free of obstructions, including Federal Aviation Regulations (FAR) Part 77 surfaces and TERPS surfaces.

These surfaces have been established by the FAA and are based primarily on the type of aircraft using the airport and the navigation aids in place for the purpose of safe air navigation. Obstructions within these surfaces could pose significant hazards to an aircraft and its passengers. An airport's failure to adequately address obstructions to protected airspace violates federal grant assurances assumed by the airport, may lead to imposed restrictions limiting runway use and airport operations, and jeopardizes the airport's eligibility to receive federal funding for future improvement projects.

Once obstructions have been identified, the airport must develop a strategy for dealing with obstructions located on and off airport property. In most instances, the successful treatment of off-airport obstructions is initiated with the acquisition of avigation easements. Once obtained, easements grant the airport operator (in this case, the City of Waterville), rights to manage



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vegetation height or mark identified obstructions using FAA approved obstruction lighting (for those surfaces where lighting is permissible) to provide the safe and efficient use of airspace.

2.2.2 Land Acquisition

Land acquisition in fee simple interest is required where the parcels to be acquired are intended to be used by the airport for future aviation development, or to otherwise prohibit non-aviation compatible development from occurring in the vicinity of the airport. Future aviation development would include space for hangars, taxiways, aircraft parking aprons, and other necessary airport infrastructure needed to support safe and efficient airport operations.

2.2.3 Acquisition Procedure

Upon identification of the necessary easement parcels and fee simple interest parcels, boundary surveys of each parcel are conducted and boundaries are designed to determine the limits of acquisition. For easement parcels, this is based on existing vegetative communities in relation to protected air surfaces. For fee simple interest parcels, this is based on the extent of the parcel that is needed to satisfy future development space requirements.

Utilizing the survey plan, legal description, and tax assessment information, an independent professional land appraiser makes an appraisal of the parcel and applicable acquisition area. The appraiser then prepares a report of the parcel(s) which includes a fair market value compensation for the land/easement acquisition(s). The report is then provided to an independent review appraiser in order to verify the initial appraisal and recommendation for just and fair compensation. Upon agreement between appraisers of fair market value for the land/easement acquisition(s), negotiations between the airport and landowner(s) for the purchase of the land/easement(s) commences. After the terms of land/easement and compensation have been negotiated, the land/easement is purchased and is recorded with the registry of deeds. The land/easement acquisition process, as outlined by FAA regulations, must be conducted in accordance with 49 CFR Part 24, *Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970*, as amended.

2.3 MITIGATING VEGETATIVE OBSTRUCTIONS

The results of the obstruction analysis identified approximately 130 acres of vegetation obstructing FAR Part 77 and TERPS protected air surfaces. Approximately 53 acres of the obstructions are located on the airport parcel, while the remaining 77 acres are located on 43 abutting parcels. Approximately 19 acres occur in wetland areas, while 111 acres of vegetative obstructions occur in upland areas.

Although both the FAR Part 77 and TERPS approach surfaces extend upward and outward from each runway end, the slopes and widths of the surfaces vary based on the approach type.



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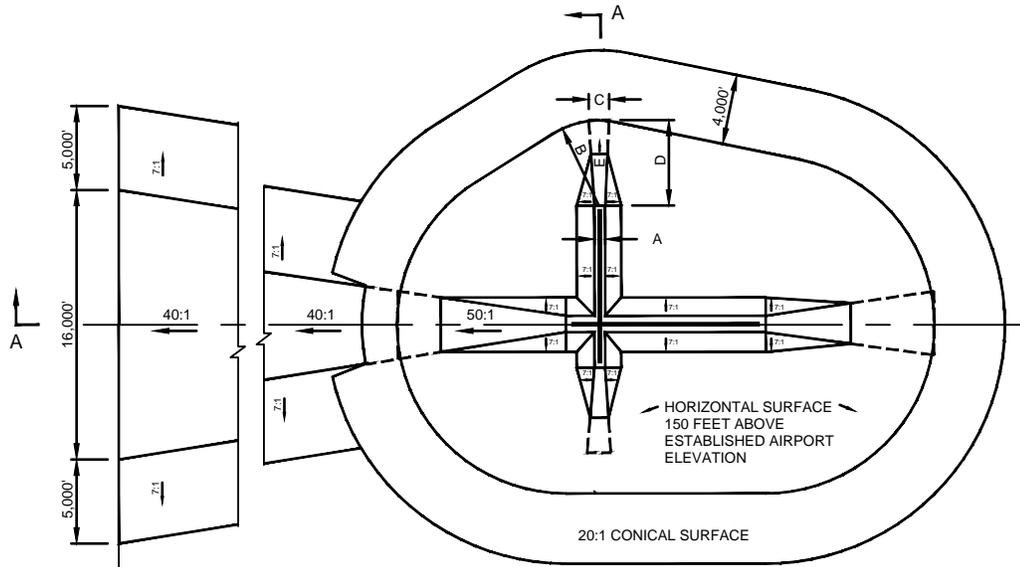
Therefore, analysis results from the combined surfaces have been included in this EA to ensure that penetrations to any or all of the surfaces are addressed. The following surfaces were used as the basis for determining the controlling obstructions for each runway:

- Runway 5 - FAR Part 77 Precision Approach: Approach surface extends upward and outward from a point 200 feet from the approach threshold, at a slope of 50:1 for a distance of 10,000 feet, and then at a slope of 40:1 for an additional 40,000 feet.
- Runway 23 - FAR Part 77 Non-Precision Approach: Approach surface extends upward and outward from a point 200 feet from the approach threshold, at a slope of 34:1 for a distance of 10,000 feet.
- Runway 5-23 - FAR Part 77 Primary Surface: Primary surface is 1,000 feet wide, extending 500 feet from each side of the runway centerline and 200 feet beyond the runway thresholds. The elevation of the primary surface is determined by the elevation of the runway centerline.
- Runway 14 - TERPS Visual Area: Approach surface extends upward and outward from a point 200 feet from the approach threshold, at a slope of 20:1 for a distance of 10,000 feet. The inner width of the Visual Area is 400 feet wide, and the outer width is 3,400 feet.
- Runway 32 - FAR Part 77 Visual Approach: Approach surface extends upward and outward from a point 200 feet from the approach threshold, at a slope of 20:1 for a distance of 5,000 feet.
- Runway 14-32 - FAR Part 77 Primary Surface: Primary surface is 250 feet wide, extending 125 feet from each side of the runway centerline and 200 feet beyond the runway thresholds. The elevation of the primary surface is determined by the elevation of the runway centerline.
- All Runways - FAR Part 77 Transitional Surfaces: Transitional surfaces extend upward and outward at a slope of 7:1 from the outer edge of the respective primary and approach surfaces.

Refer to Figure 2-1 Typical FAR Part 77 Surfaces for a generic illustration of imaginary air surfaces commonly associated with runway airspace.

The recommended method of mitigating obstructions is removal, as obstruction removal provides the highest possible degree of safety to aircraft using the airport and to airport abutters. The removal of obstructions to primary and approach surfaces is of paramount importance as these surfaces are associated with the direct line of flight during take-off and landing procedures. Removing obstructions to the primary surface is typically confined to airport property as this surface is closely associated with the "footprint" of the runway. Removing obstructions to approach surfaces can be more problematic and is required by the FAA in order for pilots to safely utilize the runway in its entirety and/or without imposed operational restrictions. Removal is also the preferred method of mitigation for obstructions to transitional surfaces, however the FAA allows in certain circumstances lighting obstructions to transitional surfaces. Lighting obstructions to transitional surfaces may be proposed to limit potential environmental

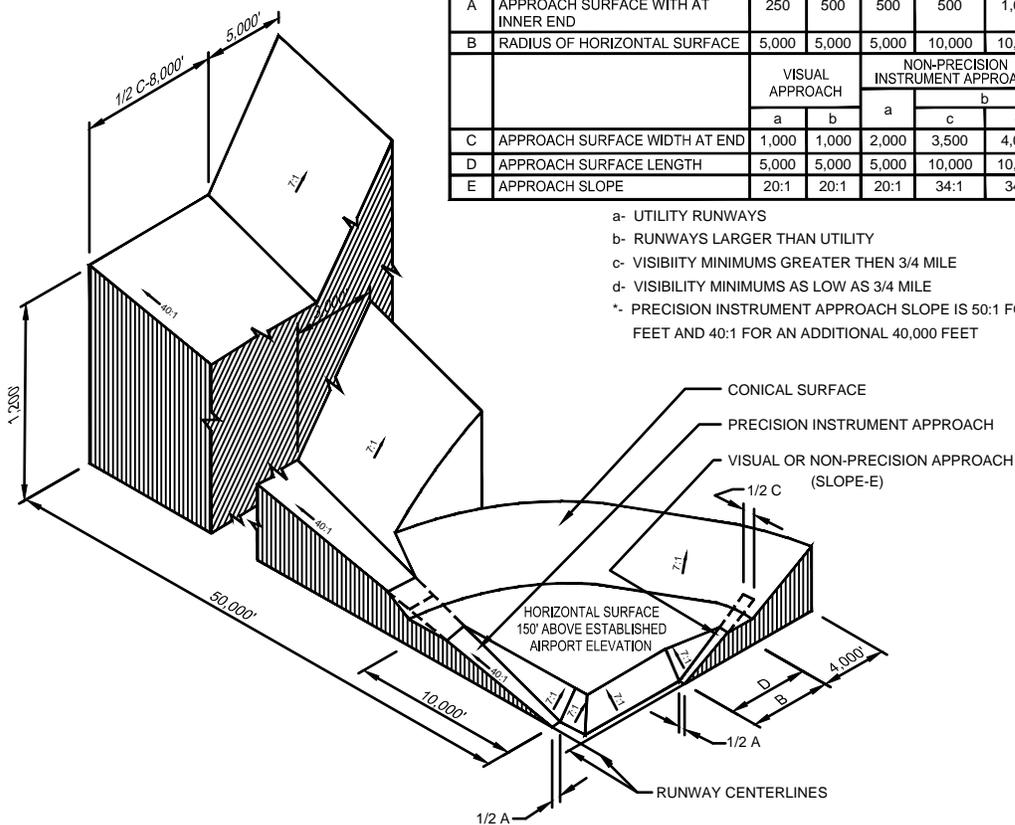




RUNWAY 5 = PRECISION INSTRUMENT APPROACH
 RUNWAY 23 = NON-PRECISION APPROACH (d)
 RUNWAY 14 = VISUAL APPROACH (a)
 RUNWAY 32 = VISUAL APPROACH (a)

DIM	ITEM	DIMENSIONAL STANDARDS (FEET)				
		VISUAL RUNWAY		NON-PRECISION INSTRUMENT APPROACH		PRECISION INSTRUMENT APPROACH
		a	b	a	b	
A	WIDTH OF PRIMARY SURFACE AND APPROACH SURFACE WITH AT INNER END	250	500	500	1,000	1,000
B	RADIUS OF HORIZONTAL SURFACE	5,000	5,000	5,000	10,000	10,000
		VISUAL APPROACH		NON-PRECISION INSTRUMENT APPROACH		PRECISION INSTRUMENT APPROACH
		a	b	a	b	
C	APPROACH SURFACE WIDTH AT END	1,000	1,000	2,000	3,500	4,000
D	APPROACH SURFACE LENGTH	5,000	5,000	5,000	10,000	10,000
E	APPROACH SLOPE	20:1	20:1	20:1	34:1	34:1

- a- UTILITY RUNWAYS
- b- RUNWAYS LARGER THAN UTILITY
- c- VISIBILITY MINIMUMS GREATER THEN 3/4 MILE
- d- VISIBILITY MINIMUMS AS LOW AS 3/4 MILE
- *- PRECISION INSTRUMENT APPROACH SLOPE IS 50:1 FOR INNER 10,000 FEET AND 40:1 FOR AN ADDITIONAL 40,000 FEET



ISOMETRIC VIEW OF SECTION A-A

OCT. 2014
 195210696

Client/Project

ROBERT LAFLEUR AIRPORT

CITY OF WATERVILLE

Waterville, Maine

Figure No.

2-1

Title

TYPICAL FAR PART 77 SURFACES



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impacts resulting from obstruction removal and/or when obtaining required easements is not practicable. It should be noted however that the presence of obstruction lights shown on the plans included in this Environmental Assessment are for preliminary planning purposes only based on general rule of thumb criteria. Prior to implementation of an obstruction lighting project, the FAA will conduct an Aeronautical Study to determine to what extent obstructions must be removed or lighted in order to provide an acceptable level of safety for users of the airport.

As stated above, approximately 130 acres of obstructions to TERPS and FAA Part 77 surfaces have been identified. All obstructions to the Runway 14-32 approaches and its protected airspace are located off-airport, requiring the purchase of avigation easements or fee simple interests in order to remove the obstructions. Some of the obstructions to the transitional surface of Runway 5-23 are also located off-airport and would require several avigation easements in order to remove the obstructions.

The acquisition of easements or land in fee simple interest, should they be required as part of the *Preferred Alternative* for mitigating the obstructions, would allow the airport to manage existing and future obstructions (trees) identified within the boundaries defined within each proposed easement / fee simple parcel. The parcels proposed for acquisition by the city of Waterville in the *Alternatives Analysis* below are associated with rural residential, commercial, industrial, and resource protection zoning located adjacent to the airport.

After any necessary parcels of land have been acquired by fee simple or with an easement and have been recorded with the Registry of Deeds, an obstruction removal and / or lighting project would be designed. The necessary environmental permits would then be obtained, and the project would be constructed.

Off-airport obstructions would be removed from established project limits within easement boundaries. Tree stumps would be removed and affected areas would be grubbed and dressed with topsoil and seeded with grass.

On-airport obstructions would be cut as close to the ground level as possible. Stump removal and grubbing of the ground surface may be proposed within certain upland locations to facilitate future maintenance efforts.

Based on the number and extent of obstructions identified, it is anticipated that all woody vegetation within the obstruction areas would be removed and/or topped, rather than removal of just a few individual trees within the parcel. Stump removal and surface grubbing would not be proposed within wetlands to avoid impacts to wetland soils. Understory vegetation would be left undisturbed to the greatest extent practicable. Mitigation activities within wetlands (i.e. vegetation removal) would occur in the winter months when the ground is frozen.

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3.0 ALTERNATIVES

3.1 INTRODUCTION

The objective of the following analysis is to identify alternatives that are reasonable and practicable for achieving project goals. Reasonable alternatives that meet the needs of the Robert LaFleur Airport have been developed and evaluated based on operational, engineering, environmental, and economic considerations. Chapter 1 of FAA Order 5050.4B, *National Environmental Policy Act (NEPA) Implementing Instructions for Airport Actions* states a primary objective of NEPA is to “disclose to the interested public a clear and accurate description of potential environmental impacts that proposed federal actions and reasonable alternatives to those actions would cause.” This EA has been prepared to satisfy NEPA requirements by presenting the potential environmental impacts associated with mitigating vegetative obstructions necessary to provide the highest possible degree of safety to operations conducted using Runways 5-23 and 14-32.

3.2 DESCRIPTION OF ALTERNATIVES

Robert LaFleur Airport has identified four alternatives associated with the proposed obstruction mitigation necessary to enhance the safety of operations conducted on Runways 5-23 and 14-32 and to maintain current operational conditions for both runways. Each alternative will be evaluated based on consideration of the proposed actions described in Section 2.0 of this EA.

3.2.1 Alternative 1: Existing Conditions - No Action

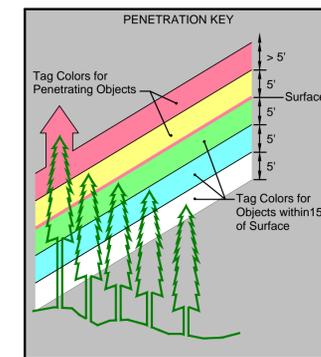
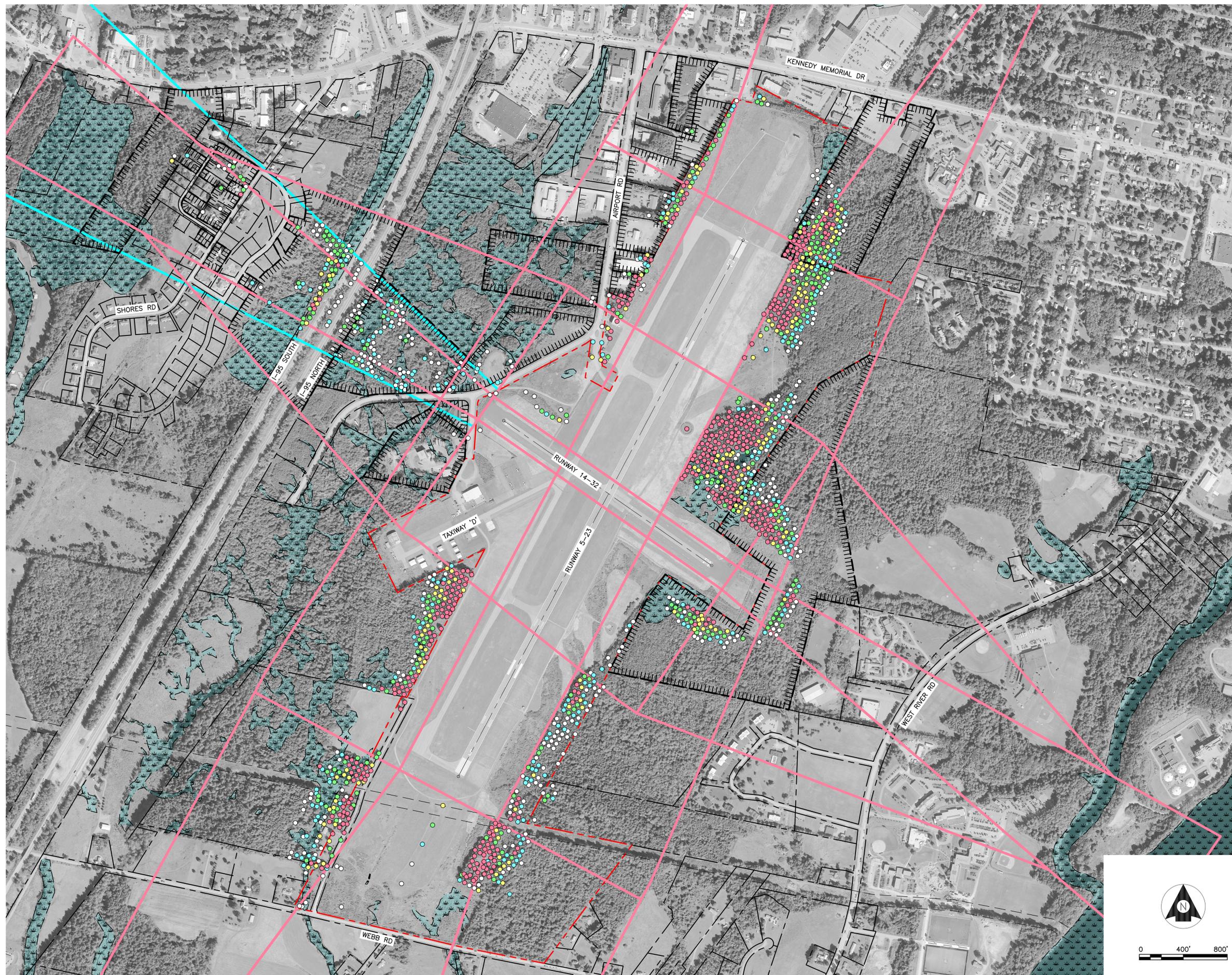
Runway 5-23, the primary runway at the airport, is 5,500 feet long and 100 feet wide and has a Runway Design Code (RDC) of C-II-4000. Runway 5 is a precision approach runway with an instrument landing system (ILS) and Runway 23 is a GPS non-precision approach runway. Both Runways 5 and 23 are equipped with a visual approach slope indicator (VASI), which allows pilots to visually orient themselves along a proper glide slope while on approach to the runway.

The cross-wind runway, Runway 14 - 32 is a visual runway with an RDC of B-I with no approach navigational aids. The runway is 2,301 feet long and 60 feet wide and does not have edge lighting. It is used only during day-light Visual Flight Rule (VFR) conditions..

The “No Action” alternative is prescribed by Council on Environmental Quality (CEQ) regulations for implementing NEPA to serve as a benchmark against which proposed federal actions can be evaluated. This alternative proposes that airport operations continue with the safety hazards associated with existing obstructions to Runways 5-23 and 14-32 airspace, see Figure 3-1 Alternative 1 *No Action-Existing Conditions*.

Consideration of the “No Action” alternative is based on the assumption that Robert LaFleur Airport would not pursue the acquisition of land or easements, or provide obstruction marking /





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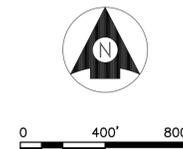
Client/Project
 ROBERT LAFLEUR AIRPORT
 CITY OF WATERVILLE

Waterville, Maine

Title
 ALTERNATIVE 1
 NO ACTION - EXISTING CONDITIONS

Project No. 195210696 Scale AS NOTED

Figure No. 3-1 Revision 0



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lighting necessary to mitigate off-airport obstructions. Acquiring parcels to accommodate future development of hangars and aircraft parking aprons through fee simple interest would not be accomplished. Furthermore, the "No Action" scenario assumes the airport will not remove penetrations to the protected airspace currently located on airport property. Adoption of this alternative would likely restrict the use of Runways 5-23 and 14-32 to day-time operations only, would likely require displacement of one or more runway thresholds, and could potentially restrict certain aircraft currently using the runways from landing at the airport. Furthermore, implementation of the "No Action" alternative jeopardizes the Airport's ability to obtain future FAA Airport Improvement Project funding due to the Sponsor's failure to honor existing grant assurances requiring the airport to maintain a safe operating environment.

3.2.2 Alternative 2: Easement / Land Acquisition and Obstruction Mitigation - Full Clear

Obtaining the necessary easements identified on Figure 3-2, *Alternative 2 Full Obstruction Removal* enables the removal of all obstructions to critical surfaces, including primary, approach and transitional surfaces. Alternative 2 proposes the removal of approximately 111 acres of upland vegetation and 19 acres of wetland vegetation identified as obstructions located both on and off-airport property. Approximately 77 acres of obstructions to the FAR Part 77 and TERPS surfaces are located off airport property, including on 8 parcels for which the airport has previously acquired aviation easements. The remaining 53 acres of obstructions are located on airport property. All identified obstructions are proposed for removal under this alternative as this form of mitigation provides the highest possible degree of safety to aircraft utilizing the airport.

This alternative requires the acquisition of 33 additional aviation easements to remove the obstructions located off-airport property. The majority of the easement parcels are located in the approach to Runway 14 adjacent to Shores Road, with the remaining easement parcels located around the perimeter of the airport. Two additional parcels are proposed to be acquired in fee simple interest for future aviation development including additional hangar and aircraft parking apron space as existing development space is limited. One parcel is located to the south of Taxiway 'D'; and the other to the west of the existing itinerant apron along Airport Road. The Taxiway 'D' parcel also contains vegetative obstructions that need to be mitigated.

The implementation of Alternative 2 satisfies existing safety deficiencies identified in Section 1.2 *Purpose and Need* by improving the safety of operations conducted on Runways 5-23 and 14-32 and meeting FAA design and safety standards. This alternative effectively mitigates identified obstructions to critical FAR Part 77 and TERPS surfaces and enables the runway to accommodate current levels of operation without restriction or alteration to existing visibility minimums. Additionally, the alternative provides additional space for future aviation development that is anticipated in the short term.

A preliminary cost opinion of \$1,320,000 has been estimated to construct Alternative 2. Table 3.1 *Estimated Costs: Alternative 2 Easement / Land Acquisition and Obstruction Mitigation - Full Clear* provides a summary breakdown of costs associated with the implementation of

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Alternative 2. This preliminary cost estimate only includes costs associated with the acquisition of land / easements and mitigation of vegetative obstructions. It does not include costs associated with future hangar or aircraft parking apron development on the parcels adjacent to Taxiway 'D' and Airport Road.

Table 3.1 Estimated Costs: Alternative 2 Easement / Land Acquisition and Obstruction Mitigation - Full Clear

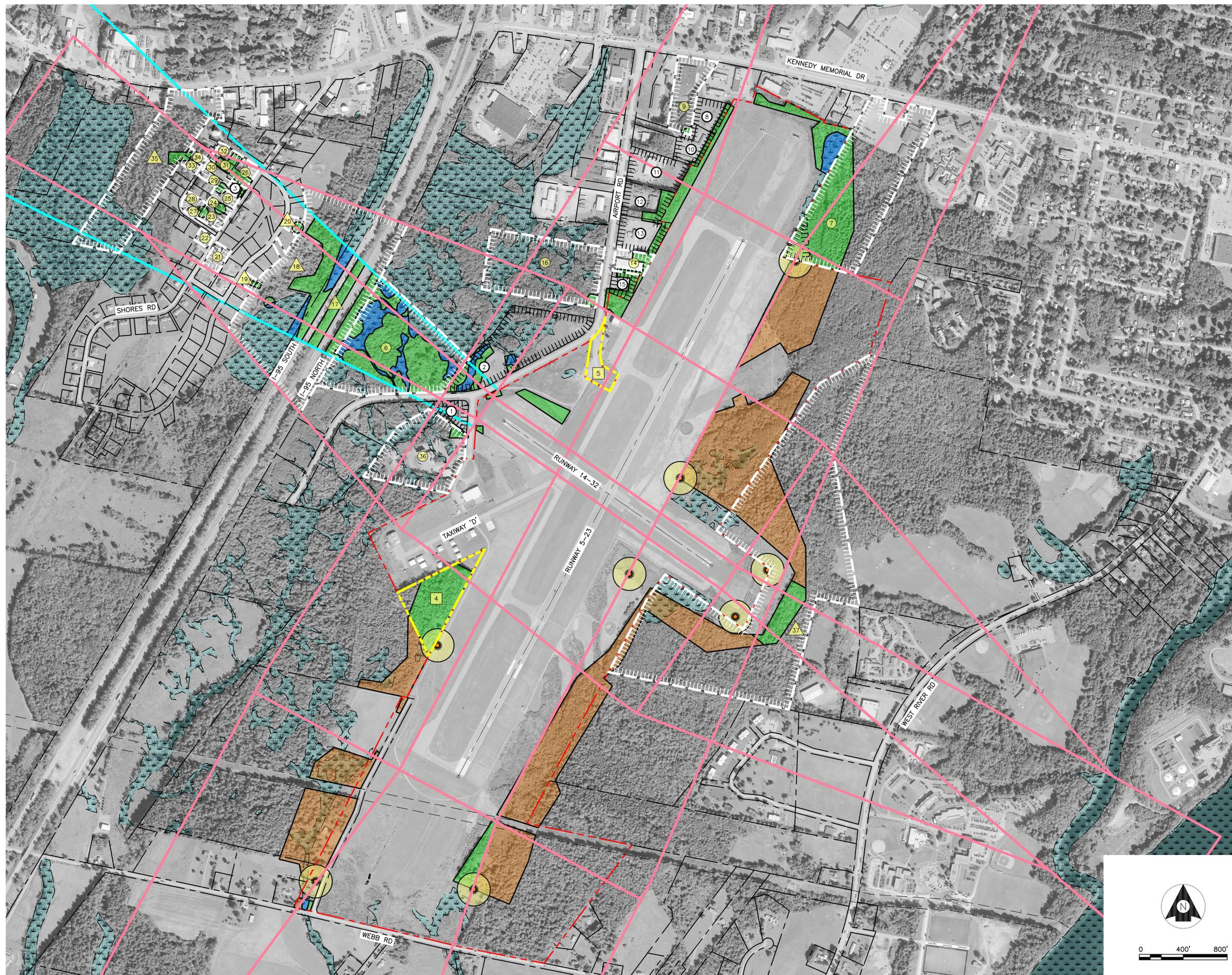
<ul style="list-style-type: none">• Engineering Fees• (Project design, boundary survey, easement negotiations, appraisals)	<ul style="list-style-type: none">• \$200,000
<ul style="list-style-type: none">• Legal Fees• (Legal Consultation, closing costs, title search)	<ul style="list-style-type: none">• \$50,000
<ul style="list-style-type: none">• Easement / Land Acquisition• (Just Compensation to property owners)	<ul style="list-style-type: none">• \$370,000
<ul style="list-style-type: none">• Construction Costs• (Vegetation Removal, erosion control, obstruction lighting)	<ul style="list-style-type: none">• \$700,000
<ul style="list-style-type: none">• Opinion of Total Project Cost	<ul style="list-style-type: none">• \$1,320,000

3.2.3 Alternative 3: Easement / Land Acquisition and Obstruction Mitigation - Partial Clear and Obstruction Lighting

Installing obstruction lights within the FAR Part 77 transitional surfaces is another option available to mitigate vegetative obstructions. Alternative 3 proposes installing eight obstruction lights within the transitional surface in order to light approximately 71 acres of obstructions located both on- and off-airport property.

Vegetative obstructions within the approach surface are considered more critical and need to be removed. Obstructions within the approach surface identified to be removed under this alternative include approximately 51 acres of upland vegetation and 8 acres of wetland vegetation. Approximately 48 acres of obstructions to be removed from protected surfaces are located off airport property. The remaining 11 acres of obstructions to be removed are located on airport property. This alternative requires the acquisition of 27 additional aviation easements to remove the obstructions located off-airport property and two parcels in fee simple interest to provide space for future aviation development. Refer to Figure 3-3 *Alternative 3 Partial Obstruction Removal and Obstruction Lighting*.

A preliminary cost opinion of \$1,075,000 has been estimated to construct Alternative 3. Table 3.2 *Estimated Costs: Alternative 3 Easement / Land Acquisition and Obstruction Mitigation - Partial Clear and Obstruction Lighting* provides a summary breakdown of costs associated with the implementation of Alternative 3. This preliminary cost estimate only includes costs associated with the acquisition of land / easements and mitigation of vegetative obstructions. It does not



Legend	
	AIRPORT PROPERTY LINE
	PROPOSED AIRPORT PROPERTY LINE
	ABUTTER PROPERTY LINE
	FAR PART 77 SURFACES
	TERPS SURFACE
	EXISTING EASEMENT
	PROPOSED EASEMENT
	EXISTING EASEMENT NO.
	PROPOSED EASEMENT NO.
	PROPOSED EASEMENT NO. (INDIVIDUAL TREES ALSO INCLUDED IN 2012 E.A.)
	PROPOSED FEE SIMPLE PURCHASE NO.
	EXISTING WETLANDS
	UPLAND VEGETATION REMOVAL AREA = ±51 AC
	WETLAND VEGETATION REMOVAL AREA = ±8 AC
	OBSTRUCTIONS TO REMAIN = ±71 AC
	PROPOSED OBSTRUCTION LIGHT

File Name: fig_3-3_lighting_clear_dfl3.dwg
 Dwn. Chkd. Dsgn. Y1MMDD

Permit-Seal

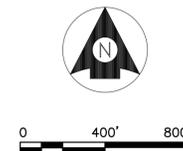
Client/Project
 ROBERT LAFLEUR AIRPORT
 CITY OF WATERVILLE

Waterville, Maine

Title
 ALTERNATIVE 3
 PARTIAL OBSTRUCTION REMOVAL AND
 OBSTRUCTION LIGHTING

Project No. 195210696
 Scale AS NOTED

Figure No. 3-3
 Revision 0



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include costs associated with future hangar development or aircraft parking apron development on the parcels adjacent to Taxiway 'D' and Airport Road.

Table 3.2 Estimated Costs: Alternative 3 Easement / Land Acquisition and Obstruction Mitigation - Partial Clear and Obstruction Lighting

<ul style="list-style-type: none"> • Engineering Fees • (Project design, boundary survey, easement negotiations, appraisals) 	<ul style="list-style-type: none"> • \$150,000
<ul style="list-style-type: none"> • Legal Fees • (Legal Consultation, closing costs, title search) 	<ul style="list-style-type: none"> • \$30,000
<ul style="list-style-type: none"> • Easement / Land Acquisition • (Just Compensation to property owners) 	<ul style="list-style-type: none"> • \$310,000
<ul style="list-style-type: none"> • Construction Costs • (Vegetation Removal, erosion control, obstruction lighting) 	<ul style="list-style-type: none"> • \$585,000
<ul style="list-style-type: none"> • Opinion of Total Project Cost 	<ul style="list-style-type: none"> • \$1,075,000

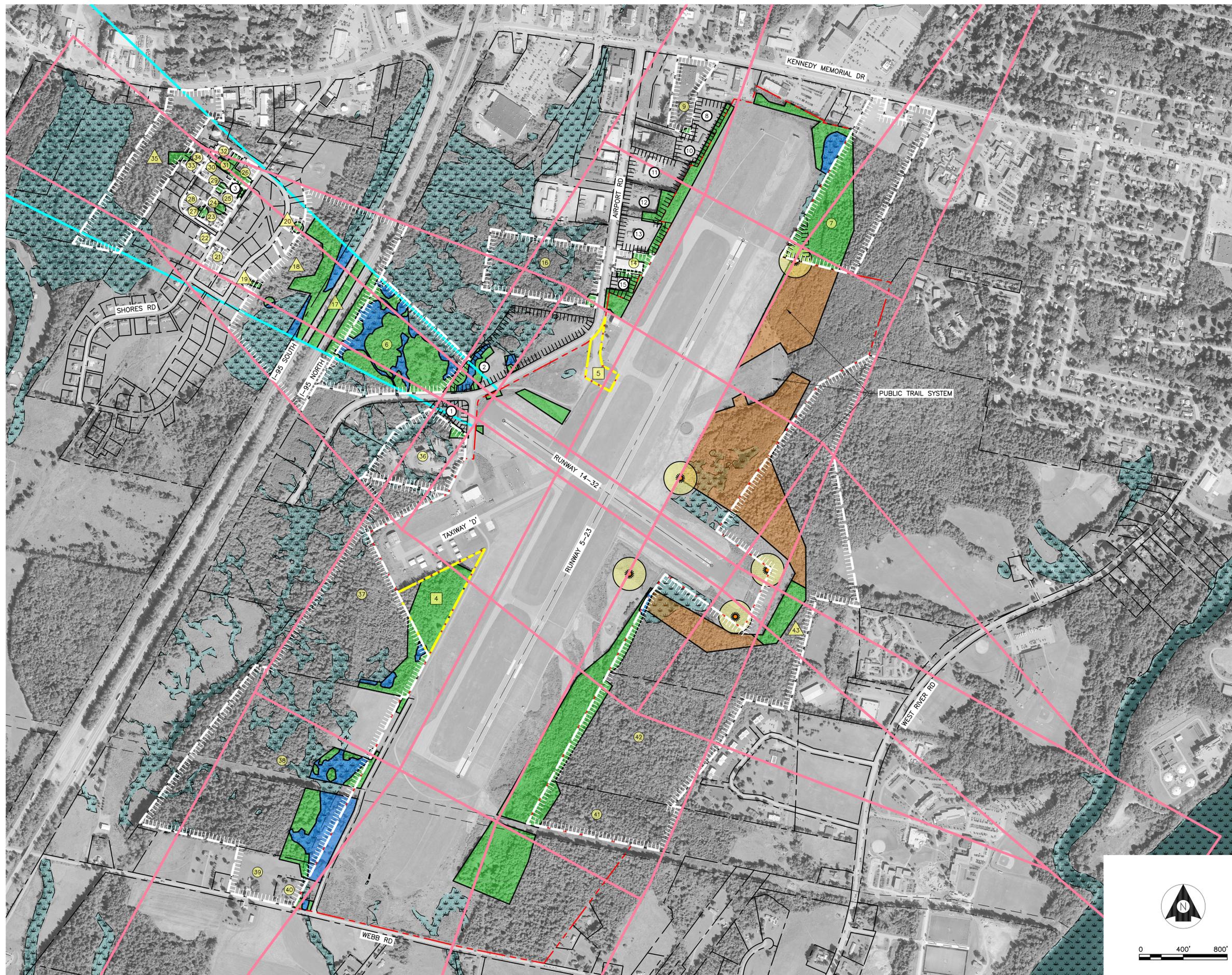
3.2.4 Alternative 4 –Easement / Land Acquisition and Obstruction Mitigation - Partial Clear and Obstruction Lighting

Alternative 4 proposes installing five obstruction lights within the FAR Part 77 transitional surfaces to the southeast of Runway 23 in order to mitigate approximately 37 acres of obstructions. This wooded area includes City owned land classified as Resource Protection District by the City of Waterville and contains an extensive trail system utilized by the public. The trail system is composed of a network of unimproved gravel paths that originate at the Pine Ridge Golf Course on West River Road and wind through the woods on City and Airport property. Although removal of vegetation in this area would not prohibit use of the trails, the aesthetic value offered by the tranquil setting would be severely impacted. Therefore, vegetation removal under Alternative 4 is limited to the approach to Runway 32. The remaining vegetation in the Resource Protection District and on airport property that are obstructions to the transitional surfaces is proposed to be lighted with obstruction lights.

The remaining obstructions located both on-and off airport property are identified to be removed. Obstructions to be removed include approximately 78 acres of upland vegetation and 15 acres of wetland vegetation.

Approximately 71 acres of obstructions to be removed are located off airport property. The remaining 22 acres of obstructions are located on airport property. This alternative requires the acquisition of 33 additional aviation easements to remove the obstructions located off-airport property and two parcels in fee simple interest to provide space for future aviation development. Refer to Figure 3-4 *Alternative 4 Partial Obstruction Removal and Obstruction Lighting*.





Legend	
	AIRPORT PROPERTY LINE
	PROPOSED AIRPORT PROPERTY LINE
	ABUTTER PROPERTY LINE
	FAR PART 77 SURFACES
	TERPS SURFACE
	EXISTING EASEMENT
	PROPOSED EASEMENT
	EXISTING EASEMENT NO.
	PROPOSED EASEMENT NO.
	PROPOSED EASEMENT NO. (INDIVIDUAL TREES ALSO INCLUDED IN 2012 E.A.)
	PROPOSED FEE SIMPLE PURCHASE NO.
	EXISTING WETLANDS
	UPLAND VEGETATION REMOVAL AREA = ±78 AC
	WETLAND VEGETATION REMOVAL AREA = ±15 AC
	OBSTRUCTIONS TO REMAIN = ±37 AC
	PROPOSED OBSTRUCTION LIGHT

File Name: fig_3-4_preferred_d14.dwg Dwn. Chkd. Dsgn. Y1MMDD

Permit-Seal

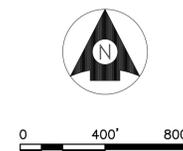
Client/Project
 ROBERT LAFLEUR AIRPORT
 CITY OF WATERVILLE

Waterville, Maine

Title
 ALTERNATIVE 4
 PARTIAL OBSTRUCTION REMOVAL AND
 OBSTRUCTION LIGHTING

Project No. 195210696 Scale AS NOTED

Figure No. 3-4 Revision 0



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A preliminary cost opinion of \$1,290,000 has been estimated to construct Alternative 4. Table 3.3 *Estimated Costs: Alternative 4 Easement / Land Acquisition and Obstruction Mitigation - Partial Clear and Obstruction Lighting* provides a summary breakdown of costs associated with the implementation of Alternative 4. This preliminary cost estimate only includes costs associated with the acquisition of land / easements and mitigation of vegetative obstructions. It does not include costs associated with future hangar development or aircraft parking apron development on the parcels adjacent to Taxiway 'D' and Airport Road.

Table 3.3 Estimated Costs: Alternative 4 Easement / Land Acquisition and Obstruction Mitigation - Partial Clear and Obstruction Lighting

<ul style="list-style-type: none">• Engineering Fees• (Project design, boundary survey, easement negotiations, appraisals)	<ul style="list-style-type: none">• \$200,000
<ul style="list-style-type: none">• Legal Fees• (Legal Consultation, closing costs, title search)	<ul style="list-style-type: none">• \$50,000
<ul style="list-style-type: none">• Easement / Land Acquisition• (Just Compensation to property owners)	<ul style="list-style-type: none">• \$370,000
<ul style="list-style-type: none">• Construction Costs• (Vegetation Removal, erosion control, obstruction lighting)	<ul style="list-style-type: none">• \$670,000
<ul style="list-style-type: none">• Opinion of Total Project Cost	<ul style="list-style-type: none">• \$1,290,000

3.3 SUMMARY OF ALTERNATIVES

As stated previously in Section 3.2.1, the "No Action" alternative does not address existing safety deficiencies associated with existing penetrations to protected airspace at the airport and; therefore, does not satisfy the defined purpose and need of the proposed project. By neglecting to mitigate obstructions, the airport will be subject to operational restrictions and likely forfeit future FAA funding for infrastructure improvement and maintenance projects until safety deficiencies have been appropriately addressed.

The implementation of Alternative 2 proposes the acquisition of 33 aviation easements and two parcels in fee simple interest and removes all obstructions to FAR Part 77 primary, approach and transitional surfaces, as well as TERPS approach surfaces. This alternative proposes the removal of 111 acres of vegetation from upland areas and 19 acres of wetland vegetation. Wetland impacts will be avoided by selectively hand-cutting obstructions during frozen ground conditions and implementing appropriate erosion and sediment controls. This alternative satisfies FAA safety design standards and facilitates continued use of the both runways without imposed restrictions.

Alternative 3 proposes the acquisition of 27 aviation easements and two parcels in fee simple interest and removes all obstructions to FAR Part 77 primary and approach surfaces, as well as TERPS approach surfaces, while lighting most of the obstructions within the transitional surfaces. The only exceptions are the obstructions to the west of Runway 23 and northeast of Runway 14



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that are recommended to be removed. This alternative proposes the removal of 51 acres of vegetation from upland areas and 8 acres of wetland vegetation in addition to installing eight obstruction lights. Wetland impacts will be avoided by selectively hand-cutting obstructions during frozen ground conditions and implementing appropriate erosion and sediment controls. This alternative also satisfies FAA safety design standards and facilitates continued use of both runways without imposed restrictions.

Alternative 4 proposes a partial clearing and lighting mitigation plan in order to avoid removing vegetative obstructions within an extensive trail system to the southeast of Runway 23. These obstructions are proposed to be marked with five obstruction lights. The acquisition of 33 aviation easements and two parcels in fee simple interest are proposed in this alternative. This is considered to be acceptable mitigation as the obstructions proposed to remain are within the FAR Part 77 transitional surface. This alternative proposes the removal of 78 acres of vegetation from upland areas and 15 acres of wetland vegetation within the airport's protected airspace. Wetland impacts will be avoided by selectively hand-cutting obstructions during frozen ground conditions and implementing appropriate erosion and sediment controls.

Based on operational, environmental, and economic considerations, *Alternative 4 –Easement / Land Acquisition and Obstruction Mitigation - Partial Clear and Obstruction Lighting* has been determined by WVJ to be the preferred alternative for mitigating obstructions to the protected airspace surfaces. Table 3.4 Development Alternatives: Summary of Impacts provides a summary of environmental impacts associated with obstruction removal alternatives considered in this Environmental Assessment.

Table 3.4 Development Alternatives: Summary of Impacts

	Alternative 1 “No Action”	Alternative 2 “Full Clear”	Alternative 3 “Partial Clear and Light”	Alternative 4 “Partial Clear and Light”
On-Airport Clearing	--	53 Acres	11 Acres	22 Acres
*Off-Airport Clearing	--	77 Acres	48 Acres	71 Acres
Vegetation Removed from Wetlands	--	19 Acres	8 Acres	15 Acres
Obstruction Lights	--	--	8	5
Obstructions to Remain	130 Acres	--	71 Acres	37 Acres

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Easements / Land Parcels Required	--	35	29	35
Total Project Cost (estimated)	\$0	\$1,320,000	\$1,075,000	\$1,290,000

*For the purposes of this EA, off -airport clearing includes clearing in those areas where the airport has previously obtained aviation easements.

Alternative 2 is the most expensive of the analyzed alternatives, and requires the greatest amount of vegetation removal, has the most impacts to wetlands, and requires the greatest number of easements to be acquired. Alternative 3 is the least expensive of the “development” alternatives, but leaves a significant amount of obstructions both on-airport and on abutting properties. Although Alternative 4 is slightly more expensive than Alternative 3, it allows for the continued use of the extensive trail system in the wooded expanse to the east of the airport, while still removing to the maximum extent practicable the obstructions to the remaining protected airspace surfaces. This alternative also minimizes the number of proposed obstruction lights that are required to be installed, as such installations tend to be contentious when they are located within sight of residential dwellings. As stated previously, the actual necessity, number and location of obstruction lights required to be installed to address obstructions will be determined at a later date as part of an FAA performed Aeronautical Study. The obstruction lights shown on these plans are intended only to provide planning level estimates of impacts.

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4.0 EXISTING CONDITIONS

4.1 AIRPORT LOCATION AND VICINITY

Robert LaFleur Airport is owned and operated by the city of Waterville. The airport is located in the city of Waterville, Kennebec County, Maine. The Airport is accessed by Airport Road, which connects to Kennedy Memorial Drive. See Figure 4-1 *Location Map*. The airport's deeded property covers approximately 398 acres.

4.2 EXISTING FACILITIES

The airport is served by two runways, Runway 5-23 (primary) and Runway 14-32 (crosswind). Runway 5-23 is 5,500 feet long and 100 feet wide. Runway 14-32 is 2,301 feet long and 60 feet wide. Runway 5 offers an instrument approach at the airport. Runway 5 allows for GPS (non-precision) and ILS (precision) approaches and Runway 23 allows for a GPS (non-precision) approach. Runways 14 and 32 are visual approach runways. Runway 5-23 is equipped with a full-length parallel taxiway (Taxiway 'A') with two stub taxiways. General aviation apron and public/private hangars are located in the western portion of the airfield adjacent to Taxiway 'D'. An itinerant parking apron is located in the northwest portion of the airport adjacent to Taxiway 'A'.

4.3 VICINITY LAND USE AND ZONING

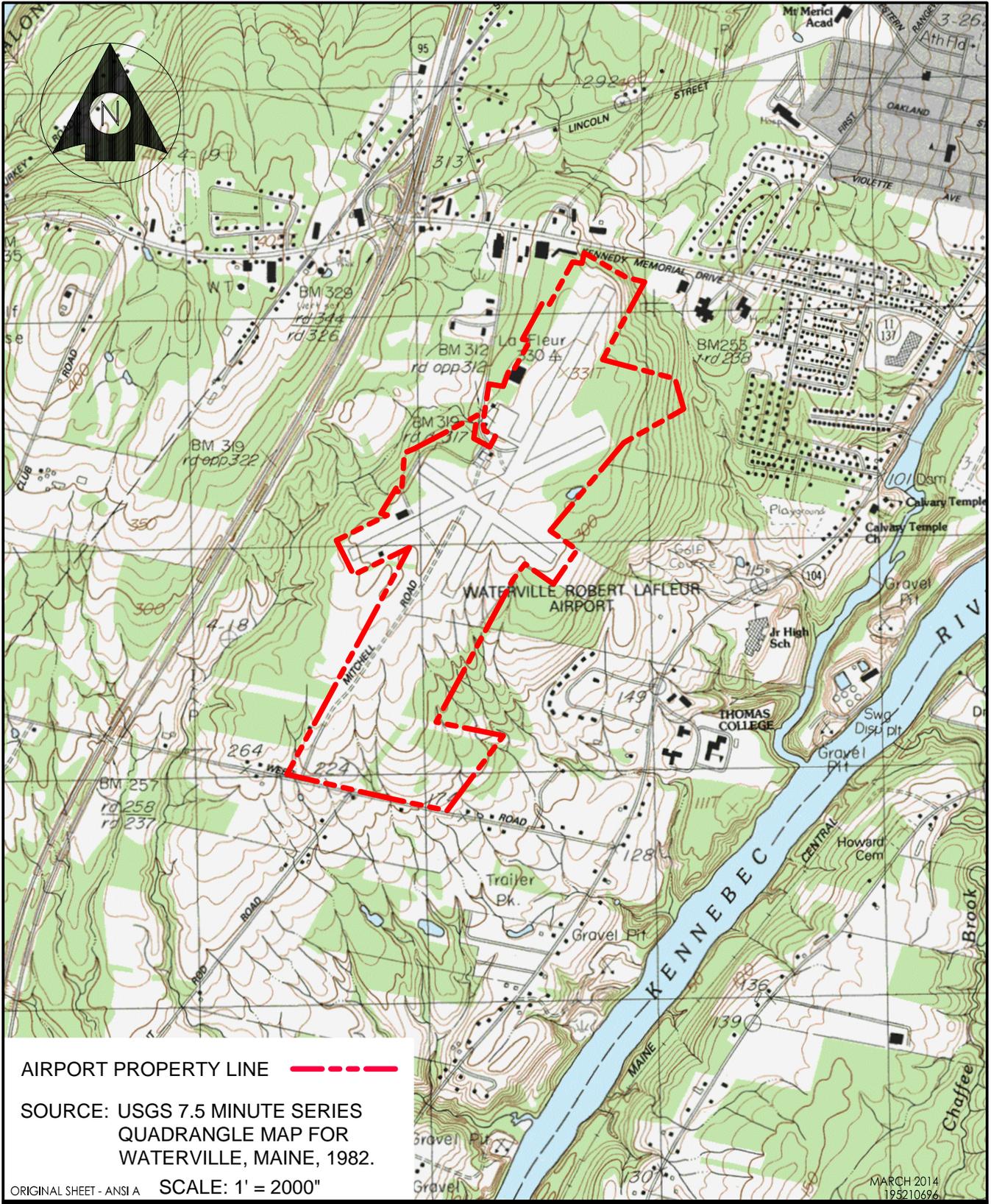
Robert LaFleur Airport is zoned 'Airport District' (AIR) based on the Official Zoning Map of the City of Waterville, as revised January 1, 2014. The Airport District is established for uses associated with and supporting the airport.

Property abutting the airport is zoned as follows:

- 'General Industrial' to the southwest
- 'Airport Industrial' to the west and southeast
- 'Commercial - C' to the north and northwest
- 'Medium Intensity Residential' to the northeast and southeast
- 'Resource Protection' to the east
- 'Rural Residential' to the south

The City has established Aviation Clearances included under Article 4 *General Performance Standards* to prohibit any new structures or plantings for all zones from "protruding into the air sufficiently to interfere with aviation requirements of the Waterville Robert LaFleur Municipal Airport as determined by FAA criteria applicable to the current airport development plans as submitted and approved by FAA." The City of Waterville also has an Airport Ordinance which





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 CITY OF WATERVILLE
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 LOCATION MAP

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establishes “clearance zones” within the approaches to each of the Runways at WVL. The “clearance zones” establish the minimum areas for which aviation easements are required for the safe operation of the Robert LaFleur Airport.

An approximate 41-acre airport business park is located to the west of the airport adjacent to Airport Road. Currently three of the parcels within the park are occupied, and include a solid waste transfer facility in one of the parcels, and a detention pond controlling stormwater runoff from the airport in another parcel.

4.4 PLANNED DEVELOPMENT

In addition to the land/easement acquisition and obstruction mitigation efforts proposed in this EA, the airport's Capital Improvement Program includes construction of a new apron identified as 'Area G' on the airport layout plan. The proposed apron is approximately 12,000 square yards and is intended to be used primarily for corporate aircraft parking, separate from General Aviation (GA) activities that currently take place along Taxiway 'D'. The area where the apron is proposed to be constructed has been previously disturbed by construction and is currently used for stockpiling fill materials. No wetlands or other sensitive environmental resources are anticipated to be impacted during construction of the project. The apron project is anticipated to cost approximately \$1,600,000.

Upon completion of the land acquisition and safety improvements contained herein, the airport may pursue construction of additional aircraft hangar units as demand and funding allow. There are no environmental impacts anticipated to result from the potential hangar development projects.

Other local development includes the Airport Business Park located on Airport Road Extension adjacent (to the west of the airport terminal area). This nine parcel business park was originally permitted in the late 1990s and early 2000s. Additional permitting was performed in 2002-03 to accommodate 2.7 acres of impervious surface and 0.48 of wetland impacts to accommodate expanded parking and a building site for a potential development. This development, however, was never constructed. Presently, the business park consists of a transfer station, a small propane storage facility, a city maintained detention pond, and a private business.

According to the City's Comprehensive Plan, the city has three distinct commercial areas including the Downtown, Kennedy Memorial Drive (KMD) and Upper Main Street. Most commercial developments have occurred in these areas over the past decade. Development within designated Growth and Rural Areas has been sparse since 2000.

Finally, a review of the City's 2014 annual report indicates other planned development includes a four-lot subdivision in the northern region of the city. The planning board has also reviewed site plans for the construction of a 26,000 square-foot church, expanded parking at an existing health care facility, construction of an 8,320 square-foot retail building on KMD, and several other relatively small developments proposals and expansions of existing sites.



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4.5 NATURAL ENVIRONMENT

Robert LaFleur Airport is located within the Kennebec River watershed. Major local water bodies include the Kennebec River, which flows north to south, and is located approximately one mile east of airport property and Messalonskee Lake, which is located approximately two miles west of the airport. Drainage from the airport occurs primarily to the west through scrub-shrub and forested wetlands located on the west of the airport and east of Interstate Route 95. Drainage also flows from the airport south of the Runway 5 end through scrub-shrub wetlands and east of Runway 23 through forested and scrub-shrub habitat. The northern region of airport property descends steeply from the Runway 23 end and is essentially bound by Kennedy Memorial Drive. The eastern and western regions of airport property and beyond are comprised primarily of forested habitat, both upland and wetland types, ranging from early successional/young forest to mature forest stands consisting of deciduous, coniferous and mixed forest communities. Common hardwood species include quaking aspen (*Populus tremuloides*), red oak (*Quercus rubra*), red maple (*Acer rubrum*), American elm (*Ulmus Americana*), white and green ash (*Fraxinus spp.*), gray birch (*Betula populifolia*), and larch (*Larix laricina*). Coniferous tree species present include white pine (*Pinus strobus*), balsam fir (*Abies balsamea*), eastern hemlock (*Tsuga canadensis*), and spruce (*Picea spp.*). To the south, airport property is bound by Webb Road. Environs south of Webb Road are characterized by agricultural fields and mixed forest communities.

Airport property and the surrounding area provide ample habitat for a variety of wildlife including White-tailed deer, wild turkey, and Eastern coyote. Pileated and downy woodpecker also utilize forested habitat. Scrub-shrub and emergent wetlands are utilized by Red-winged Blackbirds and other species of songbirds.

The proposed obstruction removal and lighting project will result in the conversion of mature forested habitat to scrub-shrub and early to mid-successional low growth forests as a result of upper tree canopy removal. Impacts to wetland soils will be avoided by removing trees identified as obstructions from wetlands during frozen ground conditions in winter months. In wetlands, trees will be cut to ground level; no stump grubbing or earth grading will be conducted in wetlands. The conversion of mature forest to low-growth habitat is expected to be long term as the airport is obligated to maintain obstruction-free airspace in accordance with FAA safety requirements.

5.0 ENVIRONMENTAL CONSEQUENCES

5.1 INTRODUCTION

This section identifies and evaluates the potential environmental consequences of implementing the proposed actions described in Section 3.0. The environmental impacts involving “extraordinary circumstances” typically requiring the preparation of an EA and identified in Chapter 6 of FAA Order 5050.4B, *National Environmental Policy Act (NEPA) Implementing Instructions for Airport Actions*, are utilized as a baseline for determining potential environmental impacts associated with federally-funded airport improvement projects. The following evaluation will also assist with determining the environmentally preferable alternative pursuant to NEPA for achieving project goals.

5.2 AIR QUALITY

In 1997, the FAA published *Air Quality Procedures for Civilian Airports & Air Force Bases* (Handbook), amended in 2004, to establish the scope of air quality assessments for proposed federal actions for compliance with the National Environmental Policy Act, the Clean Air Act (CAA) and other related regulations. In 1998, the FAA revised its policy on air quality modeling procedures and identified the Emissions and Dispersion Modeling System (EDMS) as the required model to perform air quality analyses for aviation sources. The revised policy ensures the consistency and quality of aviation analyses performed for the FAA.

The Handbook identifies criteria pollutants to be analyzed in relation to National Ambient Air Quality Standards (NAAQS). The criteria pollutants include Nitrogen Dioxide (NO₂), Sulfur Dioxide (SO₂), Carbon Monoxide (CO), Ozone (O₃), Particulate Matter (PM-2.5), and Lead (Pb). Regions in which one or more of the criteria pollutant levels exceeds air quality standards are referred to as nonattainment or maintenance areas. Federal actions proposed in nonattainment or maintenance areas are subject to various levels of NAAQS assessment, at times including EDMS modeling, to determine conformity with the Clean Air Act and NEPA regulations.

As Robert LaFleur Airport conducts fewer than 180,000 operations annually (the Airport averages approximately 16,000 annual operations²) and Kennebec County is not currently in nonattainment status for any of the criteria pollutants, air quality assessment or modeling for the project proposed in this EA is not required. Furthermore, in accordance with 40 CFR 93.153(c)(2)(iv), the airport sponsor must maintain airport facilities and the airfield in such a manner that ensures the safe operation of the airport. Airport maintenance, repair, removal, replacement, and installation work that matches the characteristics, size and function of an airport as it existed before such maintenance or repair activity typically qualifies as routine maintenance—actions presumed to conform with General Conformity standards established in the CAA.

² Taken from AMPU dated 2011; Table 2.4, Forecast of Future Activity at WV, Scenario Two

Impacts to air quality within and beyond the vicinity of the Airport are not expected as a result of constructing the airport improvement projects proposed in this EA. Minor impacts to air quality typically associated with construction activities, including odors generated by the use of heavy equipment, may result during the mitigation of the vegetative obstructions. These impacts will be limited to the duration of construction and localized to the construction site.

5.3 COASTAL RESOURCES

The Maine Coastal Program was created by the State and approved by the National Oceanic and Atmospheric Administration (NOAA) in 1978, Pursuant to the federal Coastal Zone Management Act of 1972. The Department of Agriculture, Conservation and Forestry, Bureau of Resource Information and Land Use Planning are responsible for the administration of this program. In accordance with Coastal Zone Management Act regulations, a letter of concurrence with federal consistency requirements (15 CFR Part 930) or a waiver is required for activities using federal funds in a municipality located within the coastal zone. The city of Waterville is not located within a designated coastal zone; therefore, projects proposed in this EA will not need to comply with federal coastal zone requirements.

5.4 COMPATIBLE LAND USE

The compatibility of existing and planned land uses in the vicinity of an airport is usually associated with the extent of potential aircraft-noise impacts from the airport as well as safety concerns with the land located beneath the protected airspace. Land uses occurring adjacent to and within the bounds of airport property include aviation, business and industrial park districts, residential, institutional and resource protection (Pine Ridge Golf Course). Obstruction removal activities have been proposed on and off airport property, abutting and within both public and privately owned parcels. A majority of the parcels are private residential parcels located to the northwest of Runway 14. Vegetation removal activities are also proposed on commercial and industrial parcels adjacent to the north and west side of the airport, and residential parcels to the south and east. The removal of vegetation will not alter current land uses nor will new land uses be proposed within project locations. The vegetative obstructions located on-airport currently provide limited noise abatement to residences located southwest of the airport, and slight increases in aircraft noise may be perceptible to abutters once the vegetation is removed. The majority of the residential parcels however are far removed from the airport and located adjacent to Shores Road. It is not anticipated that these abutters will notice any increase in aircraft noise.

5.5 CONSTRUCTION IMPACTS

Temporary short-term impacts typically associated with construction are anticipated to result from obstruction removal and lighting activities. Anticipated temporary impacts include increased noise and emissions from the use of construction equipment and minor increases in traffic volume on nearby access roads.

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Construction standards presented in FAA Advisory Circular 150/5370-10G, *Standards for Specifying Construction of Airports*, shall be incorporated into project design and specifications. In addition, best management practices (BMPs) preventing erosion and soil sedimentation will be integrated into project design to prevent water quality impacts to nearby water bodies. Construction contract documents will clearly state that it is the contractor's responsibility to operate in a manner that prevents temporary and permanent erosion, sedimentation, and air and water pollution.

Measures will be taken to prevent the discharge of pollutants from construction equipment such as fuels and lubricants within project locations. Designated staging areas where equipment fueling and maintenance will occur will be established away from wetlands and other surface water bodies. The use of temporary erosion and pollution prevention measures will be specifically designed and implemented throughout the duration of the construction activities pursuant to federal, state, and local jurisdictional authorities.

Short-term impacts to air quality will result from the operation of construction equipment (skidders, forwarders, chippers, etc.). The contractor, as a condition of the contract, will be obligated to provide maximum dust control measures consistent with BMPs for construction activities. Engine emissions and fumes will be extremely localized and short-term in duration.

Noise will be generated by the normal operation of construction equipment at the proposed project sites. Construction will be limited to daylight working hours in order to minimize annoyances to the surrounding community.

The projects proposed in this EA will require transporting material and equipment on public roads. Kennedy Memorial Drive, Webb Road, Shores Road and Airport Road will serve as the primary transportation corridors for construction vehicles. Safety precautions such as road signage and traffic flagging personnel, if necessary, will be utilized during construction activities.

5.6 DEPARTMENT OF TRANSPORTATION ACT: SEC 4(F)

Section 4(f) of the Department of Transportation Act requires the Secretary of Transportation investigate all alternatives before impacting any publicly owned lands designated as public parks, recreation areas, wildlife or waterfowl refuges of national, state, or local significance, or land having national, state, or local historical significance. The parcel to the east of the airport in the approach to Runway 32 is zoned as a City of Waterville Resource Protection District (RPD), (owned by the City of Waterville, DBA as Pine Ridge Golf Course, Map 27 / Lot 36, identified as Parcel 43 on the EA drawings Alternative 4). According to Article 5.16 of the current Zoning Ordinance, "*The principal use of land in the Resource Protection District is open space.*" The land is not a water supply, and is primarily undeveloped and wooded. The zone is intended to protect areas with high value natural resources and/or areas where development would adversely affect water quantity and quality, or accelerate erosion. The Article further indicates that clearing of vegetation is prohibited within a Resource Protection District, except clearing "*which is necessary for uses specifically permitted in the Resource Protection District.*" The



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Preferred Alternative minimizes proposed clearing within the RPD by installing obstruction lights to mitigate the obstructions to the transitional surfaces of Runway 14-32. Only a minimal amount of vegetation removal, approximately 2.6 acres, is proposed in the district, all of which lies within the "Clearance Zones" established in the City of Waterville's Airport Ordinance.

The Sponsor has coordinated the projects included in this Environmental Assessment with the agency who owns the property. Refer to Appendix B, Agency Correspondence for a copy of the correspondence between the airport and the City of Waterville Code Enforcement Officer approving the vegetation removal within the RPD.

5.7 FARMLANDS

The Farmland Protection Policy Act authorized the U.S. Department of Agriculture (USDA) to develop criteria for identifying effects of federal programs on the conversion of farmland to non-agricultural uses. The guidelines developed by the USDA became effective August 6, 1984, and apply to federal activities involving the undertaking, financing, or assisting in the construction of improvement projects or acquiring, managing, or disposing of land that is deemed to have prime or unique farmland qualities.

The USDA has categorized portions of the project area as prime farmland based on the classification of soils that make up the site. These soils include:

- Hollis fine sandy loam, 3 to 8 percent slopes (HrB) is categorized as "Farmland of Statewide Importance" and encompasses the parcels adjacent to Shores Road;
- Paxton-Charlton fine sandy loams, 3 to 8 percent slopes (PdB) is categorized as "Prime Farmland" and makes up a portion of the northern half of the airport parcel;
- Woodbridge fine sandy loam, 3 to 8 percent slopes (WrB) is categorized as "Prime Farmland" and makes up the central and southern part of the airport parcel;
- Scio very fine sand loam, 3 to 8 percent slopes (SkB) is categorized as "Farmland of Statewide Importance" and includes a small area on the southeast side of the airport parcel.

Actions proposed in this EA will occur within forested areas and a residential neighborhood not currently engaged in or designated for future agricultural use. Therefore, the proposed projects will not negatively impact any land deemed to have prime or unique farmland qualities.

5.8 FISH, WILDLIFE, AND PLANTS

Pursuant to Section 7 of the Endangered Species Act, the U.S. Fish and Wildlife Service (USFWS) has been consulted in order to determine the presence of threatened or endangered species within the boundaries of Robert LaFleur Airport or adjacent properties. Similarly, the Maine Department of Inland Fisheries and Wildlife (IF&W) also has been contacted regarding the status

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of state-listed species and exemplary natural communities occurring within the vicinity of activities proposed in this EA.

State-listed species include the upland sandpiper, listed as a threatened species. IF&W has determined that the obstruction removal will have minimal impact to the species as most of the removal is required off site. Correspondence with USFWS identified the federally endangered Atlantic salmon as occurring within the vicinity of the airport, see USFWS and IF&W correspondence located in Appendix B of this document. The airport is within the Federally-designated Gulf of Maine Distinct Population Segment for the federally endangered Atlantic Salmon and is within National Marine Fisheries Service designated critical habitat for Atlantic Salmon. However, intermittent streams including those located within the project area do not provide suitable habitat for Atlantic salmon which rely on perennial streams, rivers, estuaries, and lakes connected to the marine environment.

5.9 FLOODPLAINS

Floodplains are defined in Executive Order 11988 as “the lowland and relatively flat areas adjoining inland and coastal waters including, at a minimum, that area subject to a one percent or greater chance of flooding in any given year, or in other words, the area that would be inundated by a 100 year flood.” This order directs federal agencies to “take action to reduce the risk of flood loss, to minimize the impacts of floods on human safety, health, and welfare, and to restore and preserve the natural beneficial values served by floodplains.”

An online review of floodplain maps issued by the Federal Emergency Management Agency (FEMA) determined that no part of airport property or properties affected by actions proposed in this EA occur within the 100-year flood zone. Airport safety improvement projects proposed in this EA will not contribute to the impacts of floods on human safety, health, and welfare nor will they compromise the beneficial values served by floodplains.

5.10 HAZARDOUS MATERIALS, POLLUTION PREVENTION AND SOLID WASTE

The proposed easement / land acquisitions and associated vegetative obstruction removal and lighting projects will not involve the use of hazardous materials nor will the projects generate a significant volume of solid waste. Designated staging areas will be established in upland locations for equipment fueling and daily maintenance (lubrication). Contractors will also be required to adhere to the pollution prevention measures and erosion and sedimentation controls identified in the Stormwater Pollution Prevention Plan (SWPPP) for Construction Activities prepared for the project in accordance with the Maine Pollutant Discharge Elimination System (MPDES) permitting program administered by the Maine Department of Environmental Protection.

Felled trees and all wood debris resulting from the project will be removed from the site, unless otherwise determined to provide ecological benefit to the site. Construction bid documents



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shall require trees and any wood to become the property of the contractor to be processed or disposed of in accordance with federal, state, and local regulations.

No changes in the quantity of type of solid waste generated at the airport, or changes in the method of collection at the facility, are anticipated.

5.11 HISTORICAL, ARCHITECTURAL, ARCHAEOLOGICAL, AND CULTURAL RESOURCES

The National Historic Preservation Act of 1966 (NHPA), as amended, and the Archeological and Historic Preservation Act of 1974, as amended, require federal agencies to consider impacts of their actions to resources of historic, cultural, or archeological significance. Section 106 of the NHPA requires consultation with the State Historic Preservation Officer (SHPO) and Tribal Historic Preservation Officer(s) (THPO) to determine potential adverse effects of a federal action to culturally significant resources and/or historic properties on or eligible for listing on the National Register of Historic Places.

However, as ground disturbance (stumping, grubbing, grading, etc.) is not proposed as a component of obstruction removal activities, impacts to potentially significant historic resources are not anticipated. The Maine Historic Preservation Commission has determined the project presented in this EA will have no impact on historic properties. See correspondence located in Appendix B.

5.12 LIGHT EMISSIONS AND VISUAL IMPACTS

The FAA requires consideration of the extent to which any lighting associated with an airport action will create an annoyance or disturbance among residents in the vicinity of a proposed lighting installation or project. Alternative 3 and Alternative 4 includes the installation of eight and five obstruction lights respectively to minimize vegetation removal in transitional surfaces. Alternative 4, the preferred alternative, proposes to install five obstruction lights to minimize the amount of clearing to the Resource Protection District and public walking trails in the wooded expanse east of the airport.

Type L-810 steady-burn obstruction lights are to be utilized to illuminate identified obstructions in low-light and nighttime conditions. Type L-810 lights have an effective lighting radius of 150 feet. These light fixtures, typically 6-10 inches tall, will be mounted on wooden or steel poles exceeding the height of the tallest adjacent penetrations when marking vegetation. Type L-810 obstruction lights are intended to be seen from above, alerting pilots of nearby hazards to local airspace and providing visual cues to obstruction free approach corridors.

These obstruction lights are not anticipated to create significant nuisances to abutters due to the proposed locations of installed obstruction lights and distances to residential parcels. The lights will be located along the tree line on the eastern side of the airport adjacent to large expanses of forest that will act as a buffer to minimize visibility from the ground. Vegetation to

remain adjacent to the west side of the airport is also anticipated to minimize the likelihood of visual disturbance to the residential parcels along Shores Road. Additionally, the nearest residential parcels are approximately 4,200 feet to the south along Webb Road and approximately 4,600 feet to the west along Shores Road.

5.13 NATURAL RESOURCES AND ENERGY SUPPLY

Energy requirements associated with a proposed airport improvement project generally fall into two categories: (1) those that relate to changed demands for stationary facilities (i.e. airfield lighting and terminal building heating), and (2) those that involve the movement of air and ground vehicles.

The preferred alternative includes the installation of five L-810 obstruction lights, which are typically approximately 116 watts. The project is therefore anticipated to have only minimal effects on energy consumption at the airport. There will not be any use of rare materials or natural resources in short supply for the actions proposed in this EA.

5.14 NOISE

As indicated in FAA Order 1050.1E, *Environmental Impacts: Policies and Procedures*, the FAA has determined that for aviation noise analysis the cumulative noise exposure of individuals to noise resulting from aviation activities must be established in terms of yearly day/night average sound level (DNL) as FAA's primary metric. A noise analysis can be prepared using the FAA's Integrated Noise Model (INM) in order to assess noise impacts resulting from airport improvement projects to noise sensitive areas (e.g. densely populated residential areas, historic sites, national parks and national wildlife refuges). According to Order 1050.1E, a significant noise impact results when the INM analysis demonstrates the proposed project will create an increase of DNL 1.5 decibel (dB) or more at or above DNL 65dB noise exposure in noise sensitive areas.

As the project proposed in this EA—the acquisition of aviation easements and the removal of vegetative obstructions located on and off airport property—will not lead to larger aircraft using the airport or to an increase in the number of operations conducted at the facility, an INM, analysis has not been conducted. Obstruction removal activities proposed to mitigate obstructions to the approach surfaces are not expected to alter existing noise contours at the airport.

Short-term noise impacts typically associated with the use of heavy equipment may be experienced by airport abutters during harvesting operations. However, these impacts will be limited to normal daylight working hours for the duration of the proposed project.

5.15 SECONDARY (INDUCED) IMPACTS

Major airport development projects may involve the potential for induced or secondary impacts on surrounding communities. Examples of such impacts include shifts in patterns of population

movement and growth, public service demands, and changes in business and economic activity to the extent influenced by the proposed airport development project. When potential exists for secondary impacts, the EA shall describe in general terms the consideration of these factors.

Proposed on and off-airport obstruction removal activities and obstruction lighting are not expected to result in significant induced impacts as the safety improvement project will not contribute to shifts in population patterns, increased (or decreased) public service demands, or changes to local business activity.

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

Executive Order 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-income Populations*, was issued on February 11, 1994. This Order established procedures for the U.S. Department of Transportation (USDOT) to "achieve environmental justice as part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects, including interrelated social and economic effects, of its programs, policies, and activities on minority populations and low-income populations in the United States."

Towards the prevention of disproportionately high and adverse effects on minority and low-income populations, USDOT monitors operations to assure that nondiscrimination is an integral part of its programs. USDOT policies, programs, and activities are subject to the requirements of NEPA, Title VI of the Civil Rights Act, Uniform Relocation Assistance and Real Property Acquisition Policies Act, Intermodal Surface Transportation Efficiency Act, and other USDOT statutes involving human health, social and economic impacts, or environmental matters. Socioeconomic, environmental justice and children's health and safety risk impacts are not anticipated as the proposed project will not result in: disproportionately high and adverse effects (human health, economic, or environmental) on minority and low income populations; disproportionate health and safety risks to children; extensive relocation of residents or community businesses contributing to severe economic hardship for affected communities; or disruptions of local traffic patterns thereby substantially reducing levels of service of roads serving the community.

FAA is also encouraged to identify and evaluate potential environmental health and safety risks that could disproportionately affect children. Such risks are typically attributable to materials (such as food, drinking and recreational water, soil, and air) children may come in contact with or ingest.

5.17 WATER QUALITY

The potential to degrade the water quality of ground water sources and local surface water bodies must be assessed when evaluating project alternatives considered in this EA. As discussed

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in Section 3 *Alternatives*, the alteration of freshwater wetlands is associated with proposed design alternatives presented in this EA. Wetland alteration will consist of the conversion of forested wetland habitat to scrub-shrub habitat as well as the selective removal of scrub-shrub vegetation that is identified as an obstruction to protected air surfaces.

Construction activities are not anticipated to result in the siltation or pollution of wetlands or adjacent water bodies. In order to avoid potential water quality impacts associated with the construction activities, obstruction removal activities proposed in wetlands will be conducted in winter months during frozen ground conditions to avoid surface soil disturbances. Temporary erosion and pollution control measures will be specifically designed and implemented throughout the duration of construction activities pursuant to federal, state, and local jurisdiction authorities.

Predetermined sites for equipment and material staging and equipment refueling will be established in locations removed from wetland areas in order to reduce the risk of potential surface and groundwater impacts. Contractors will be required to provide spill containment equipment to prevent discharge of pollutants from construction equipment such as fuels, lubricants, or any other harmful or potentially harmful material into wetlands or any other body of water within the vicinity of the project area. Adverse impacts to the water quality of surface and groundwater resources are not anticipated as a result of actions proposed in this EA.

5.18 WETLANDS

Federal wetland regulations, implemented by the U.S. Army Corps of Engineers (USACE), are based on Section 404 of the federal Clean Water Act. The federal definition of a wetland found in the *Corps of Engineers Wetlands Delineation Manual (1987)*, characterizes federal wetlands using a three-parameter approach based on vegetation, hydrology, and soils. The State of Maine, using a similar three-parameter approach to define wetlands, regulates wetlands through the Natural Resources Protection Act.

As stated in Section 4.5, *Natural Environment*, wetland areas are present on and within the vicinity of airport property. Wetland types occurring on-airport include scrub-shrub, wet meadow and emergent wetland systems, and forested wetlands. Wetland boundaries are based on a combination of formal field-delineations, sketch-level determinations, and the use of existing mapping and available on-line data. Additional wetland field delineation will be required off airport property (within proposed easement locations) to determine actual wetland boundaries within proposed project locations.

Wetlands to be altered (approximately 15 acres) by the construction of *Alternative 4 Partial Obstruction Removal and Obstruction Lighting* consist of forested wetland habitat on airport property located to the southwest of Runway 5 and northeast of the Runway 23 end. Forested wetlands located within proposed easement areas located to the west of the Runway 14 end will also be altered. As stated previously in Section 4.5 *Natural Environment*, wetland alteration

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will consist of conversion of forested habitat to scrub-shrub and low-growth successional habitat through the removal of upper canopy trees obstructing airspace.

Continued maintenance is required in wetland obstruction removal locations adjacent to the runways to prevent the recurrence of penetrations to protected airspace. Less frequent maintenance will be required in proposed easement areas further removed from runway operating environments. Maintenance efforts must be conducted in a manner that avoids disturbances to wetland soils.

5.19 WILD AND SCENIC RIVERS

There are no rivers classified under the Wild and Scenic Rivers Act (PL 90-542, as amended) within the airport vicinity. Therefore, no impacts to this resource are anticipated to result from the proposed actions.

5.20 SUMMARY OF IMPACTS

This EA has been prepared to identify and evaluate potential impacts resulting from project alternatives to human and natural resources within the vicinity of the airport. Pursuant to NEPA considerations, the preferred alternative for achieving project goals is *Alternative 4 - Easement / Land Acquisition and Obstruction Mitigation - Partial Clear and Obstruction Lighting*. This alternative satisfies the Purposes and Need statement presented in this document, substantially enhances the safety of aircraft operations conducted on Runway 5-23 and Runway 14-32, and enables unrestricted use of the runways by the fleet of aircraft currently utilizing the airport. The proposed obstruction mitigation project will not adversely impact the ecological integrity or water quality of wetlands, state or federally protected species of flora or fauna, or historic or archaeologically sensitive resources. Nor will the implementation of Alternative 4 contribute to significant socioeconomic impacts as defined in NEPA.

6.0 MITIGATION MEASURES

6.1 INTRODUCTION

Mitigation measures are actions that will be implemented during project design and construction to avoid and minimize environmental impacts to the greatest extent possible. Ultimately, mitigation must conform to the necessary permitting requirements provided in Section 7 of this EA. Mitigation measures (40 CFR § 1508.20) generally include the following:

- Avoiding the effect altogether by stopping or modifying the action;
- Minimizing the effect by limiting the degree or magnitude of the action and the activities associated with its implementation;
- Rectifying the effect by repairing, rehabilitating, or restoring the affected environment;
- Reducing or eliminating the effect over time by preservation and maintenance operations during the life of the action;
- Compensation for the effect by replacing or providing substitute resources or environments; and
- Compensatory mitigation required as a condition of environmental permitting for construction activities.

Based on safety, operational, environmental, and economic considerations, it has been determined that the preferred alternative for achieving project goals is *Alternative 4 - Easement / Land Acquisition and Obstruction Mitigation - Partial Clear and Obstruction Lighting*. This alternative improves the safety of operations conducted on both runways, satisfies FAA airspace safety standards and minimizes potential environmental impacts to the greatest extent possible.

6.2 WATER QUALITY MITIGATION

Impacts to ground and surface water resources are not anticipated as a result of the projects proposed in this EA. Appropriate BMPs, such as removing trees in frozen ground conditions to limit soil disturbance to the greatest extent possible and the installation of silt fence and haybale barriers will be implemented during construction to prevent the degradation of adjacent surface water bodies. Construction equipment will not be allowed to operate within wetlands and evidence of adequate spill response equipment shall be demonstrated on site prior to initiating construction. The proposed safety improvement project will not result in an increase of impervious surface on or adjacent to the airport. Increased storm water runoff from the airport and off-airport project locations is not expected.

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6.3 CONSTRUCTION MITIGATION

In order to avoid potential water quality impacts associated with the construction of the proposed projects, temporary erosion and pollution control measures will be specifically designed and implemented throughout the duration of construction activities pursuant to federal, state, and local jurisdictional authorities.

Best management practices to be implemented include: cutting in wetlands in such a manner that avoids disturbances of wetland soils; the timely stabilization of disturbed soils in areas where stump removal has occurred; the implementation of erosion, sedimentation and pollution prevention controls; the operation of equipment during daytime hours only; and the construction of equipment access pads to prevent the off-site tracking of dirt and mud. Central locations for all equipment refueling and staging will be established in upland areas removed from wetlands in order to minimize the risk of ground and surface water quality impacts.

Mitigation for the removal of trees located off airport property is typically assumed in the payment made to the landowner for the value of the easement. Funds from the payment may be used by the landowner, at their discretion, to replant affected areas with vegetation suitable to grow to maturity without encroaching upon protected air surfaces, such as low growing trees or shrubs.

7.0 JURISDICTIONAL AUTHORITIES, ACTIONS AND PERMITS

The following discussion outlines the jurisdictional authorities, actions, and permits that apply to the vegetative obstruction mitigation project proposed in this EA for construction at Robert LaFleur Airport.

7.1 FEDERAL JURISDICTIONS

7.1.1 National Environmental Policy Act (NEPA)

NEPA is the United States' basic charter for protection of the environment. NEPA was enacted with two primary objectives in mind: (1) preventing environmental damage and degradation, and (2) ensuring that federal agencies consider environmental factors with regard to federal actions. NEPA also established the federal Council on Environmental Quality, which is responsible for promulgating NEPA regulations (40 CFR § 1500 – 1508).

NEPA regulations mandate environmental protection for all federal agencies (excluding Congress, the judiciary, and the President). They also require federal agencies to assist in implementing the CEQ's NEPA regulations by adopting policy and procedures consistent with NEPA. The FAA has two such documents: FAA Orders 5050.4B, *National Environmental Policy Act (NEPA) Implementing Instructions for Airport Actions* and 1050.1.E, *Policies and Procedures for Considering Environmental Impacts*.

The analysis and documentation provided in this EA enables the FAA to either issue a Finding of No Significant Impact (FONSI), or, if additional analysis is necessary to evaluate the magnitude of potential impacts, require the preparation of an Environmental Impact Statement (EIS).

7.1.2 NPDES Notice of Intent (NOI) & Stormwater Pollution Prevention Plan (SWPPP) for Construction Activities

The National Pollutant Discharge Elimination System (NPDES) stormwater program requires construction site operators engaged in clearing, grading and excavation activities that disturb one acre or more to obtain coverage for stormwater discharges from the site under a NPDES permit. Many states are authorized to implement the NPDES Stormwater permitting program, including Maine. . In Maine, the Maine Department of Environmental Protection implements the NPDES program under its Maine Pollutant Discharge Elimination System (MPDES), and operators must meet the requirements of the Maine Construction General Permit (MCGP) as reissued on July 21, 2006.

In order to receive coverage under the MCGP, an operator must submit to the Maine DEP a complete and accurate Notice of Intent prior to initiating construction activities. The NOI certifies to Maine DEP that an operator is eligible for permit coverage and provides information regarding the nature of construction and associated stormwater discharge.

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Prior to submitting the NOI, all operators associated with a construction project must develop a stormwater pollution prevention plan (SWPPP).

The SWPPP, intended to eliminate the potential for introducing pollutants to stormwater must include, at a minimum, the following:

- Stormwater Team;
- Nature of Construction Activities;
- Emergency-Related Projects;
- Identification of Other Site Operators;
- Sequence and Estimated Dates of Construction Activities;
- Site Map;
- Potential Construction Site Pollutants;
- Non-Stormwater Discharges;
- Stabilization Practices;
- Pollution Prevention and Waste Management Procedures;
- Procedures for Inspection, Maintenance, and Corrective Action; and
- Staff Training

The SWPPP must be amended to reflect changes in operator status or modifications to construction plans, stormwater control and pollution prevention measures, or to any other activity that is no longer adequately reflected in the SWPPP. A current copy of the SWPPP must be kept on site and made available at the time of inspection or upon request by Maine DEP.

7.1.3 Clean Water Act Sec. 402 Water Quality Certification

As required by Section 402 of the federal Clean Water Act, discharges into surface and subsurface waters require a water quality certification. A water quality certification is implied if a permit is issued from the Maine Department of Environmental Protection pursuant to the Maine Natural Resources Protection Act.

7.2 STATE JURISDICTIONS

7.2.1 Site Location of Development

This state law requires review of developments that may have a substantial effect upon the environment. These types of development have been identified by the Legislature, and include developments such as projects occupying more than 20 acres, metallic mineral and advanced exploration projects, large structures and subdivisions, and oil terminal facilities. A permit is issued if the project meets applicable standards addressing areas such as stormwater management,



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groundwater protection, infrastructure, wildlife and fisheries, noise, and unusual natural areas. Robert LaFleur Airport was issued a Site Location of Development permit by the Maine Department of Environmental Protection in October 1982, and it has since been amended for each development project constructed at the airport over the past 30+ years. The construction of obstruction mitigation activities proposed in this EA will require an amendment to the airport's existing Site Location of Development permit. Maine DEP will issue an amendment if it is determined that proposed projects meet applicable standards.

7.2.2 Natural Resources Protection Act

Wetland alteration impacts associated with the proposed improvement project are subject to the Natural Resources Protection Act (38 MRSA §§ 480-A to 480-HH). In part, NRPA serves to manage, protect and mitigate environmental impacts to wetlands within the State of Maine. The Maine Department of Environmental Protection is responsible at the state level for permitting wetland projects and enforcing jurisdictional wetland protection laws.

Due to wetland alteration impacts resulting from projects proposed at Robert LaFleur Airport, an application for a Natural Resource Protection Act permit will be filed with Maine DEP to be reviewed concurrently by the U.S. Army Corps of Engineers. Currently, Maine DEP does not require compensatory mitigation for wetland alteration impacts resulting from vegetation removal projects when dredge and fill impacts, or impacts to other natural resources protected under NRPA are absent.

Appendix A
February 18, 2015

Appendix A

A.1 FAA DETERMINATION

Appendix B
February 18, 2015

Appendix B

B.1 AGENCY CORRESPONDANCE



PAUL R. LEPAGE
GOVERNOR

STATE OF MAINE
DEPARTMENT OF
INLAND FISHERIES & WILDLIFE
284 STATE STREET
41 STATE HOUSE STATION
AUGUSTA ME 04333-0041

CHANDLER E. WOODCOCK
COMMISSIONER

March 24, 2014

Gregg Cohen
Stantec Consulting Services, Inc.
482 Payne Road, Scarborough Court
Scarborough, ME 04074

RE: Information Request - Robert LaFleur Airport, Waterville

Dear Gregg:

Per your request received March 13, 2014, we have reviewed current MDIFW information for known locations of Endangered, Threatened, and Special Concern species; designated Essential and Significant Wildlife Habitats; and fisheries habitat concerns within the vicinity of the *Robert LaFleur Airport Project* in Waterville.

Our Department has not mapped any Essential or Significant Wildlife Habitats or fisheries habitats that would be directly affected by your project.

Rare, Threatened, and Endangered Species

Upland sandpipers

Upland sandpipers, a State-listed Threatened Species, have been documented in the vicinity of the airport. However, as most of the vegetation in need of removal is located off site from the airport, this project will have minimal impacts to the species.

This consultation review has been conducted specifically for known MDIFW jurisdictional features and should not be interpreted as a comprehensive review for the presence of other regulated features that may occur in this area. Prior to the start of any future site disturbance we recommend additional consultation with the municipality, and other state resource agencies including the Maine Natural Areas Program and Maine Department of Environmental Protection in order to avoid unintended protected resource disturbance.

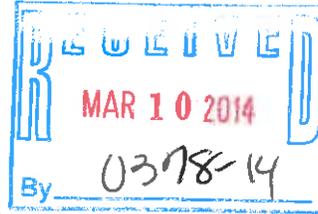
Please feel free to contact my office if you have any questions regarding this information, or if I can be of any further assistance.

Best regards,

John Perry
Environmental Review Coordinator



Stantec Consulting Services Inc.
482 Payne Road Scarborough Court
Scarborough ME 04074
Tel: (207) 883-3355
Fax: (207) 883-3376



March 6, 2014
File: 195210696

Attention: Mr. Kirk Mahoney
Deputy State Historic Preservation Officer
Maine Historic Preservation Commission
55 Capitol Street
65 State House Station
Augusta, ME 04333-0065

Dear Mr. Mahoney,

**Reference: Vegetative Obstruction Removal
Waterville Robert LaFleur Airport
Waterville, Maine**

Based on the information submitted, I have concluded that there will be no historic properties affected by the proposed undertaking, as defined by Section 106 of the National Historic Preservation Act. Consequently, pursuant to 36 CFR 800.4(d)(1), no further Section 106 consultation is required unless additional resources are discovered during project implementation pursuant to 36 CFR 800.13.


Kirk F. Mohnney,
Deputy State Historic Preservation Officer
Maine Historic Preservation Commission

3/12/14
Date

The City of Waterville and the Waterville Robert LaFleur Airport are currently preparing an Environmental Assessment in accordance with FAA and National Environmental Policy Act (NEPA) requirements to evaluate potential impacts associated with the removal of vegetative obstructions to protected airspace at the airport. The removal of trees penetrating airspace is proposed off airport property within upland and possibly within wetland areas as well. Stump grubbing may occur in upland locations but will not be conducted within wetlands should tree removal be necessary in wetland locations. Easements will be obtained to remove obstructions identified off airport property.

In order to satisfy Section 106 National Historic Preservation Act requirements and to augment the planning process for these projects, we are interested in obtaining information regarding any historic, archaeological or architecturally sensitive resources that may potentially be impacted by the projects considered in the Environmental Assessment

The project considered in the EA will not impact existing structures and do not propose the construction of new impervious surfaces or new stormwater management infrastructure. Please refer to the *Preliminary Easement Parcels for Runway 14-32 Tree Clearing Environmental Assessment* included with this letter for more detailed information regarding the proposed project. A USGS location map has also been included to assist with your review.

Should you have any questions or require additional information please do not hesitate to contact me. Your assistance with this matter is greatly appreciated.



March 6, 2014
Mr. Kirk Mahoney
Page 2 of 2

**Reference: Vegetative Obstruction Removal
Waterville Robert LaFleur Airport
Waterville, Maine**

Regards,

STANTEC CONSULTING SERVICES INC.

Gregg Cohen
Senior Environmental Analyst
Phone: (207) 887-3824
Fax: (207) 883-3376
gregg.cohen@stantec.com

Attachment: As indicated.

c.



United States Department of the Interior



FISH AND WILDLIFE SERVICE

Maine Ecological Services Field Office

17 GODFREY DRIVE, SUITE 2

ORONO, ME 4473

PHONE: (207)866-3344 FAX: (207)866-3351

URL: www.fws.gov/mainefieldoffice/index.html

Consultation Tracking Number: 05E1ME00-2014-SLI-0232

September 09, 2014

Project Name: Waterville Robert LaFleur EA

Subject: List of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project.

To Whom It May Concern:

The enclosed species list identifies the threatened, endangered, candidate, and proposed species and designated or proposed critical habitat that may occur within the boundary of your proposed project or may be affected by your proposed project. This species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 et seq.).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC Web site at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 et seq.), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the Endangered Species Consultation Handbook at:

<http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF>

This species list also identifies candidate species under review for listing and those species that the Service considers species of concern. Candidate species have no protection under the Act but are included for consideration because they could be listed prior to completion of your project. Species of concern are those taxa whose conservation status is of concern to the Service (i.e., species previously known as Category 2 candidates), but for which further information is needed.

If a proposed project may affect only candidate species or species of concern, you are not required to prepare a Biological Assessment or biological evaluation or to consult with the Service. However, the Service recommends minimizing effects to these species to prevent future conflicts. Therefore, if early evaluation indicates that a project will affect a candidate species or species of concern, you may wish to request technical assistance from this office to identify appropriate minimization measures.

Please be aware that bald and golden eagles are not protected under the Endangered Species Act but are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 et seq.). Projects affecting these species may require development of an eagle conservation plan:

http://www.fws.gov/windenergy/eagle_guidance.html Information on the location of bald eagle nests in Maine can be found on the Maine Field Office Web site:
<http://www.fws.gov/mainefieldoffice/Project%20review4.html>

Additionally, wind energy projects should follow the wind energy guidelines:

<http://www.fws.gov/windenergy/> for minimizing impacts to migratory birds and bats. Projects may require development of an avian and bat protection plan.

Migratory birds are also a Service trust resource. Under the Migratory Bird Treaty Act, construction activities in grassland, wetland, stream, woodland, and other habitats that would result in the take of migratory birds, eggs, young, or active nests should be avoided. Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at:

<http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm> and at:

<http://www.towerkill.com>; and at:
<http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html>

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment



United States Department of Interior
Fish and Wildlife Service

Project name: Waterville Robert LaFleur EA

Official Species List

Provided by:

Maine Ecological Services Field Office

17 GODFREY DRIVE, SUITE 2

ORONO, ME 4473

(207) 866-3344

<http://www.fws.gov/mainefieldoffice/index.html>

Consultation Tracking Number: 05E1ME00-2014-SLI-0232

Project Type: Vegetation Management

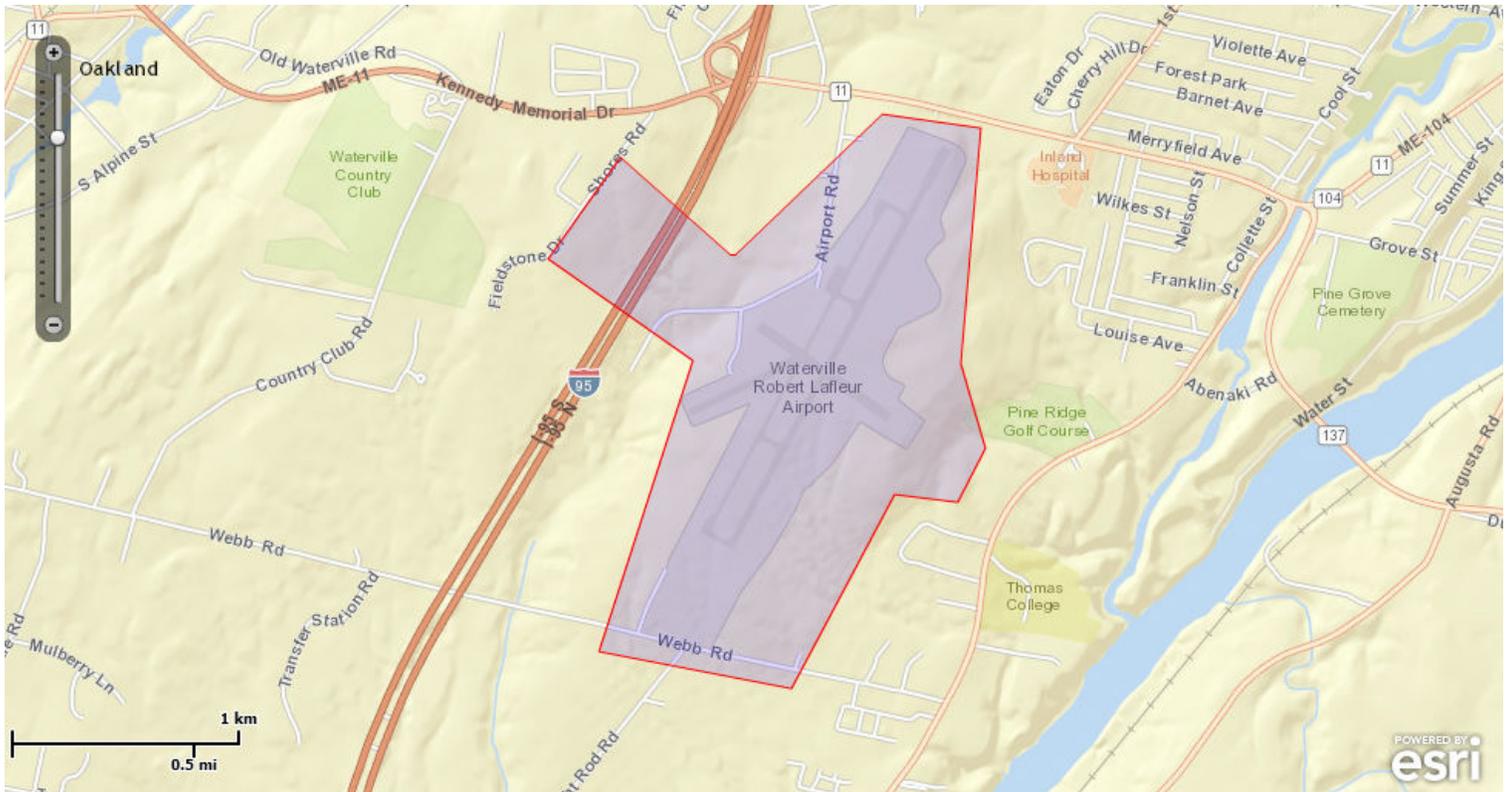
Project Description: End Species Review for Proposed Airspace Obstruction Removal and Lighting



United States Department of Interior
Fish and Wildlife Service

Project name: Waterville Robert LaFleur EA

Project Location Map:



Project Location Measurements: Area : 720.0 ac., Length : 5.3 mi.

Project Coordinates: MULTIPOLYGON (((-69.6866251 44.5420238, -69.6805226 44.5381727, -69.6801792 44.5381727, -69.6720253 44.5437397, -69.6665322 44.5431861, -69.667648 44.5338258, -69.6662747 44.5304606, -69.6678196 44.528319, -69.6713387 44.528625, -69.6770893 44.5209147, -69.6878182 44.5223834, -69.6825825 44.5339482, -69.6906549 44.5379861, -69.6866251 44.5420238)))

Project Counties: Kennebec, ME



United States Department of Interior
Fish and Wildlife Service

Project name: Waterville Robert LaFleur EA

Endangered Species Act Species List

There are a total of 1 threatened or endangered species on your species list. Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Critical habitats listed under the **Has Critical Habitat** column may or may not lie within your project area. See the **Critical habitats within your project area** section further below for critical habitat that lies within your project. Please contact the designated FWS office if you have questions.

Fishes	Status	Has Critical Habitat	Condition(s)
Atlantic salmon (<i>Salmo salar</i>) Population: Gulf of Maine DPS	Endangered	Final designated	



United States Department of Interior
Fish and Wildlife Service

Project name: Waterville Robert LaFleur EA

Critical habitats that lie within your project area

The following critical habitats lie fully or partially within your project area.

Fishes	Critical Habitat Type
Atlantic salmon (<i>Salmo salar</i>) Population: Gulf of Maine DPS	Final designated



Code
Enforcement
Office

February 10, 2015

To: Greg Brown /City Engineer

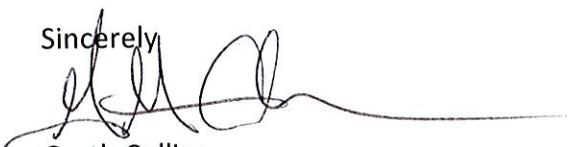
Dear Mr. Brown:

This letter is in regards to trees that have grown into protective airspace of runway 32. In accordance with the City's zoning ordinance section 5.16.4E this gives the City a right to remove trees that are in the RP zone, if no reasonable alternative exists.

After reviewing the plans the Code Enforcement Office finds that no alternative exists.

The City Code Enforcement office gives it approval of the tree remove plan in the RP zone, to eliminate projection hazards on this property.

Sincerely



Garth Collins

Director of Code Enforcement



City Hall, 1 Common Street, Waterville, ME 04901-6699
Phone: (207) 680-4231 | Fax: (207) 680-4234
gcollins@waterville-me.gov | www.waterville-me.gov

Runway 32 approach:

A clearance zone, hereinafter referred to as the "approach surface," being a fan-shaped zone which begins two hundred (200) feet easterly of Runway 14-32; the base line or beginning of said zone is two hundred fifty (250) feet wide, and is at right angles to the centerline of said runway extended and one hundred twenty-five (125) feet on each side of said centerline; thence extending in an easterly direction in a fan shape as aforesaid, the sides of said approach surface having an interior angle of $95^{\circ}-42'-38''$ and the plane of said approach surface at the same elevation as that of the aforesaid runway end and rising at a slope of 20:1; i.e. for every twenty (20) feet extended horizontally there shall be a rise of one (1) foot vertically as measured along the centerline of said runway extended for a distance of five thousand (5,000) feet to an outermost width of one thousand two hundred fifty (1,250) feet. Extending from each side of the above described approach surface is a "transition surface" which is a plane extending upward from the approach surface at a slope of 7:1 at right angles to the centerline of said runway extended; i.e. for every seven (7) feet extended horizontally there shall be a rise of one (1) foot vertically; insofar as said easement affects the lands situated in Waterville, County of Kennebec, State of Maine.

The easement and rights hereby described include the continuing right to clear and keep clear the above described land of any and all obstructions infringing upon or extending above the plane of said glidepath, and for this purpose to cut and remove trees, underbrush and soil, and to demolish and remove buildings or any other structures or obstructions infringing upon or extending above said plane, together with the right of ingress and egress from the passage on and over said lands for the purpose of effecting and maintaining such clearance.

Appendix C
February 18, 2015

Appendix C

C.1 COMMENTS

