

DECEMBER 2017

FINAL

Environmental Assessment (EA) & Environmental Impact Evaluation (EIE) for Obstruction Removal

Windham Airport (IJD)

Prepared for:



Prepared by:



FINDING OF NO SIGNIFICANT IMPACT ENVIRONMENTAL ASSESSMENT (EA) FOR OBSTRUCTION REMOVAL

WINDHAM AIRPORT (IJD)

FAA AIP NO. 3-09-0900-010-2014

CAA CONTRACT NO. 2014-02

CHA CONTRACT NO. 29067

March 2017

Prepared for:
Connecticut Airport Authority (CAA)



Prepared BY:
CHA Consulting, Inc.



Windham Municipal Airport (IJD)
Obstruction Analysis -Tree Removal

FEDERAL FINDING

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

Approved: _____

A handwritten signature in blue ink, appearing to read "R. Doucette", is written over a horizontal line.

Richard Doucette
Manager, Environmental Programs

2/23/17

Date

RECORD OF DECISION
ENVIRONMENTAL IMPACT EVALUATION (EIE) FOR
OBSTRUCTION REMOVAL

WINDHAM AIRPORT (IJD)

FAA AIP NO. 3-09-0900-010-2014

CAA CONTRACT NO. 2014-02

CHA CONTRACT NO. 29067

December 2017

Prepared for:
Connecticut Airport Authority (CAA)



Prepared BY:
CHA Consulting, Inc.



Notice: On November 11, 2017, the State of Connecticut, Office of Policy and Management (OPM) determined that the Connecticut Airport Authority (CAA) “shall not be construed to be a department, institution or agency of the state”, and that the Connecticut Environmental Policy Act (CEPA) is not applicable to CAA actions. See CT OPM notice included in Appendix B. As such, environmental review for the project is not subject to CEPA, and this ROD (prepared prior to November 2017) is not applicable. Nevertheless, as this study followed the CEPA process, the ROD and references to CEPA and the EIE were retained for informational purposes.

1.0 DECISION

The Connecticut Airport Authority (CAA), owner and operator of the Windham Airport (IJD) intends to implement the proposed action detailed in the Environmental Assessment and Environmental Impact Evaluation for Obstruction Removal issued on March 2017 and included with this document.

A single document serving as an EA/EIE was prepared to satisfy the requirements of the National Environmental Policy Act (NEPA) of 1969 and the Connecticut Environmental Policy Act (CEPA) to address the potential impacts associated with the objects that penetrate the airspace which are classified as airspace obstructions, and should

be removed to safely accommodate approaching and departing aircraft. As the airspace surfaces extend well beyond the airport's property boundary, this EIE includes an off-airport obstruction removal and mitigation review.

This decision is based on careful consideration of the alternatives and potential environmental impacts documented in the Final EA/EIE.

2.0 PROJECT LOCATION AND SUMMARY OF ACTION

The Windham Airport is located in the northcentral portion of Connecticut, approximately 30 miles east of Hartford and 30 miles north of Groton. The Airport encompasses approximately 280 acres, and is owned by the CAA. IJD is located in Windham County, Town of Windham, approximately three miles northeast of the Willimantic district. The Airport is 40 miles west of Providence, Rhode Island; 70 miles southwest of Boston, Massachusetts; and 120 miles northeast of New York, New York. The Airport is accessible via State Route 6 (Boston Post Road), which is a major route between the Hartford, CT and Providence, RI.

Based on the evaluation identified in the Environmental Assessment and Environmental Impact Evaluation for Obstruction Removal document, and the review by CAA and FAA, the Modified Obstruction Removal Alternative has been chosen as the "Proposed Action" and "Preferred Alternative" for Windham Airport. This determination is primarily related to the Full Removal Alternative being considered not practical or feasible from an environmental and cost standpoint. The No Action Alternative is also not considered appropriate as it does not address the safety of airport users and does not satisfy FAA requirements or obligations.

3.0 STATEMENT OF ENVIRONMENTAL IMPACT

No significant impacts to the environment are anticipated as a result of the proposed action. All practicable means to avoid or minimize any associated environmental impacts as identified in the Final EA/EIE will be adopted. The mitigation measures identified in the Final EA/EIE will be adopted and implemented as part of the proposed action.

4.0 SUMMARY OF AGENCY CONSULTATION AND PUBLIC COMMENTS

A Scoping Notice was published in the CEPA Environmental Monitor on June 16, 2015 to allow for 30 days of public comment, ending on July, 17, 2015. The Connecticut DEEP provided scoping comments dated July 17, 2015 which can be found in the attached Final EA/EIE document which follows the ROD.

A Draft EA/EIE was prepared for the project in February 2016 and submitted to the stakeholder agencies for review and comment. Contact was also initiated with federal and state resource agencies prior to the Draft EA/EIE during the development of alternatives, including:

- The Connecticut Department of Energy and Environmental Protection (CTDEEP), Office of Environmental Review
- The Connecticut Department of Energy and Environmental Protection (CTDEEP), Bureau of Outdoor Recreation
- Connecticut Department of Economic & Community Development, State Historic Preservation Office (SHPO)
- State of Connecticut Department of Public Health
- Tribal Historic Preservation Officers of the Mashantucket Pequot Tribal Nation and the Mohegan Tribe.

On February 29, 2016 the Draft EA/EIE was issued and made available for review and comment on the CAA project website (<http://windhamairport.caa-analysis.com/>) and published in the Environmental Monitor (<http://www.ct.gov/ceq/cwp/view.asp?a=987&Q=578776>). A notice of the Draft EA/EIE publication, including information on how the document could be accessed, the location, date and time of the public informational meeting, and details on the comment process, was advertised in The Norwich Bulletin, The Chronicle, and Windham Chamber of Commerce website. The advertisement was posted on March 9, 2016 and March 23, 2016. **Per CEPA requirements, this notice was also mailed to CTDEEP, the Town of Windham, and the Connecticut Office of Policy and Management (OPM).** Comments were accepted through Monday May 31, 2016. A total of eleven comment letters or emails were received during this period from agencies and the public and can be found in Appendix B of the accompanying EA/EIE.

A public informational meeting was held on March 29, 2016 at the Mansfield Public Library, 54 Warrentown Rd, Mansfield Center, CT 06250. This meeting was attended by representatives from CAA and CHA Consulting, Inc. who introduced the project and discussed the identified alternatives and proposed action. This meeting was attended by six members of the public.

Comments and issues identified from the public and agency stakeholders were reviewed, acknowledged and incorporated into the alternatives analysis, proposed action, project design and analysis of environmental consequences where feasible and practicable. **The Final EA/EIE including such revisions was publicly displayed and available for comment on the CAA project website (<http://windhamairport.caa-analysis.com/project-documents/>) in order to fulfill the requirements of CEPA and is included as part of the ROD.** Agencies that commented on the Draft EA/EIE as well as municipalities affected by the action were notified of the availability of the Final EA/EIE.

FINAL ENVIRONMENTAL ASSESSMENT (EA) FINAL ENVIRONMENTAL IMPACT EVALUATION (EIE)

The complete report can be found on the CAA website at
<http://windhamairport.caa-analysis.com/project-documents/>

FINAL ENVIRONMENTAL ASSESSMENT (EA) & ENVIRONMENTAL IMPACT (EIE) EVALUATION FOR OBSTRUCTION REMOVAL WINDHAM AIRPORT (IJD)

FAA AIP NO. 3-09-0900-010-2014

CAA CONTRACT NO. 2014-02

December 2017

Prepared for:
Connecticut Airport Authority (CAA)



Prepared BY:
CHA Consulting, Inc.



In Association with:
DY Consultants, Inc.
Fitzgerald & Halliday, Inc.

TABLE OF CONTENTS

1.0 INTRODUCTION	1-1
2.0 PURPOSE AND NEED	2-1
3.0 ALTERNATIVES ANALYSIS AND PROPOSED ACTION	3-1
4.0 AFFECTED ENVIRONMENT	4-1
5.0 ENVIRONMENTAL CONSEQUENCES	5-1
6.0 LIST OF PREPARERS	6-1

APPENDICES

APPENDICES	
APPENDIX	TITLE
A	Airport Obstruction Study Maps
B	Correspondence
C	Threatened & Endangered Species
D	Summary of Public Meeting
E	Summary of Comments/Responses

LIST OF TABLES

LIST OF TABLES		
TABLE	TITLE	PAGE NUMBER
1	Existing Airport Facilities	1-2
2	Based Aircraft	1-2
3	Annual Operations	1-2
4	Airport Reference Codes	1-3
5	Runway Designation Summary	1-3
6	FAR Part 77 Dimensions	1-6
7	Existing Habitats, Associated Species of Conservation Concern and their Respective State and Federal Status	4-5
8	National Wetlands Inventory Mapped Wetland Cover Types	4-10
9	Summary of Potential Impacts and Key Issues	5-17

LIST OF ACRONYMS

ACRONYMS	
ABBREVIATION	MEANING
AAC	Aircraft Approach Category
AC	Advisory Circular
ADG	Airplane Design Group
ARC	Airport Reference Code
CAA	Connecticut Airport Authority
CEPA	Connecticut Environmental Policy Act
CFR	Code of Federal Regulations
CIP	Capital Improvement Program
DEEP	Connecticut Department of Energy and Environmental Protection
DOT	US Department of Transportation
EA	Environmental Assessment (Federal)
EPA	US Environmental Protection Agency
FAA	Federal Aviation Administration
FAR	Federal Aviation Regulation
FEMA	Federal Emergency Management Agency
IJD	Windham Airport
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act of 1969
PIAS	National Plan of Integrated Airport Systems
O3	Ozone
OCS	Obstacle Clearance Zone
OFZ	Obstacle Free Zone
RDC	Runway Design Code
ROFA	Runway Object Free Area
RPZ	Runway Protection Zone
RSA	Runway Safety Area
TERPS	Terminal Instrument Procedures
VFR	Visual Flight Rules

1.0 INTRODUCTION

This Environmental Assessment (EA) documents the evaluation of potential impacts associated with tree removal at Windham Airport which is operated by the Connecticut Airport Authority (CAA). The evaluation addresses obstruction removal associated with Federal Aviation Regulations (FAR) Part 77, Safe, Efficient Use, and Preservation of the Navigable Airspace and published Terminal Instrument Procedures (TERPS), which define the airspace surrounding runways. Objects that penetrate the airspace are classified as airspace obstructions, and should be removed to safely accommodate approaching and departing aircraft. As the airspace surfaces extend well beyond the airport's property boundary, this EA includes an off-airport obstruction removal and mitigation review.

This EA was prepared to satisfy the requirements of the National Environmental Policy Act (NEPA) of 1969 and the Connecticut Environmental Policy Act (CEPA) to address potential impacts associated with the tree obstruction removal while providing the opportunity for public involvement and comments. The study was conducted in accordance with Federal Aviation Administration (FAA) guidelines to include the "Environmental Desk Reference for Airport Actions", FAA Order 5050.4B "National Environmental Policy Act (NEPA) Implementing Instructions for Airport Actions" and FAA Order 1050.1E "Environmental Impacts: Policies and Procedures." Since the project would potentially be federally-funded, the EA must comply with federal requirements (i.e., NEPA, FAA).

As part of a previous study, the CAA and Federal Aviation Administration (FAA) have identified that trees penetrate the airspace of Windham Airport, including locations beyond airport property.

This EA includes the following sections:

- Introduction
- Purpose and Need
- Alternatives Analysis and Proposed Action
- Affected Environment
- Environmental Consequences
- List of Preparers
- Correspondence and Public Comments

Note that substantive report edits between the Draft EA and this final document are indicated with underlined text.

1.1 PROJECT LOCATION AND EXISTING FACILITIES

The Windham Airport is located in the northcentral portion of Connecticut, approximately 30 miles east of Hartford and 30 miles north of Groton. The Airport encompasses approximately 280 acres, and is owned by the CAA. IJD is located in Windham County, Town of Windham, approximately three miles northeast of the Willimantic district. The Airport is 40 miles west of Providence, Rhode Island; 70 miles southwest of Boston, Massachusetts; and 120 miles northeast of New York, New York. The Airport is accessible via State Route 6 (Boston Post Road), which is a major route between the Hartford, CT and Providence, RI. Appendix A provides a map which depicts the location of IJD relative to the surrounding area.

Runway 9-27

Runway 9-27 serves as the primary runway and is 4,271 feet long and 100 feet wide. The Runway 9 approach end has a 258 foot displaced threshold due to obstructions (i.e., trees) located within the Federal Aviation Regulation

(FAR) Part 77 approach surface. In 2013, most of the on airport tree obstruction were removed. Refer to Table 1 for a side by side comparison of the intersecting Runway 18-36.

Runway 18-36

Runway 18-36 serves as the crosswind runway and is 2,799 feet long and 75 feet wide. The Runway 18 approach end has a 799 foot displaced threshold due to obstructions (i.e., trees) located within the FAR Part 77 approach surface. A recent obstruction removal project included the clearing of on-airport tree obstructions, plus some of the off-airport obstructions. Refer to Table 1 for a side by side comparison of the intersecting Runway 9-27.

TABLE 1- EXISTING AIRPORT FACILITIES			
RUNWAY 9-27		RUNWAY 18-36	
Runway Length (Feet)	4,271'	Runway Length (Feet)	2,799'
Width (Feet)	100'	Width (Feet)	75'
Surface Type	Asphalt	Surface Type	Asphalt
Parallel Taxiway	TWY A	Parallel Taxiway	TWY B
Threshold Displacement (Feet)	RWY 9: 258'	Threshold Displacement (Feet)	RWY 18: 799'
	RWY 27: None		RWY 29: None

Source: Data Compiled by CHA Consulting, Inc. (2015)

1.2 BASED AIRCRAFT AND AVIATION ACTIVITY

Windham Airport is a general aviation facility that serves private, corporate, and charter aircraft operating for recreational/personal, training, and business purposes. The Airport does not offer scheduled airline service. There are a total of 68 based aircraft at the Airport.

Table 2 lists the existing based aircraft and Table 3 depicts annual operations at IJD. Note that an aircraft operation is defined as either one landing or one takeoff, therefore each flight includes at least two operations which consists of one takeoff and one landing.

TABLE 2- BASED AIRCRAFT							
	SINGLE ENGINE	MULTI ENGINE	JET	ROTOR	GLIDERS	MILITARY	TOTAL
Based Aircraft	63	2	3	0	0	0	68

Source: FAA 5010 Data Dated (2014)

TABLE 3- ANNUAL OPERATIONS						
	AIR CARRIER	AIR TAXI	GA LOCAL	GA ITINERANT	MILITARY	TOTAL
Operations	0	100	8,000	5,800	200	14,100

Source: FAA 5010 Data Dated (2014)

Appendix A contains a map that represents the Project Study Area and depicts the location of the airport and the general approaches to each runway end. Chapter 3, identifies the specific recommended tree removal locations.

1.3 FAA DESIGN STANDARDS

The design, or critical, aircraft is defined as the most demanding aircraft operating or projected to operate on the airport's runway, taxiway, or apron. According to the FAA, the design aircraft can be either a specific aircraft model or a composite of several aircraft, and must account for a minimum of 500 annual itinerant operations.

The FAA uses the approach speed and wingspan of the design aircraft to classify the airport. The FAA term for this classification is the airport reference code (ARC). Table 4 provides the FAA specifications associated with the ARC classification system.

TABLE 4 - AIRPORT REFERENCE CODES				
AIRCRAFT APPROACH CATEGORY (AAC) ¹		AIRPLANE DESIGN GROUP (ADG) ²		
CATEGORY	APPROACH SPEED	GROUP	TAIL HEIGHT	WINGSPAN
A	Approach speed less than 91 knots	I	< 20'	<49'
B	Approach speed 91 knots or more but less than 121 knots	II	20' - < 30'	49' - < 79'
C	Approach speed 121 knots or more but less than 141 knots	III	30' - < 45'	79' - < 118'
D	Approach speed 141 knots or more but less than 166 knots	IV	45' - < 60'	118' - < 171'
E	Approach speed 166 knots or more	V	60' - < 66'	171' - < 214'
		VI	66' - < 80'	214' - < 262'

Source: FAA AC 150-5300-13A, Airport Design¹

As previously identified, Windham Airport is served by two runways (Runway 9-27 and Runway 18-36). The design aircraft for Runway 9-27 is the Beechcraft King Air 200 which is classified has an aircraft approach category (AAC) of B and an airplane design group (ADG) of II. Therefore, based on these design aircraft characteristics for Runway 9-27, the airport reference code is B-II. The Piper Navajo Runway has been identified as the design aircraft for Runway 18-36. The Runway is classified with an AAC of B and an ADG of I. Therefore, based on these design aircraft characteristics Runway 18-36 has an ARC of B-I. Table 5 provides a summary of the runway design codes (RDC) classifications for both runways at IJD.

TABLE 5 - RUNWAY DESIGN CODE SUMMARY			
RUNWAY	DESIGN AIRCRAFT	AAC	ADG
9-27	Beechcraft King Air 200	B	II
18-36	Piper Navajo	B	I

Source: FAA AC 150/5300-13A, Airport Design

After determining the airport runway design code, the airport itself is classified with the appropriate ARC. The ARC is used for airport planning and design purposes and is determined by the highest RDC at the airport. The ARC uses the same classification system as the RDC. Runway 9-27 is classified with the highest RDC at the Airport. Therefore, the ARC for IJD is classified as B-II.

Airspace Obstructions

Overall airspace obstructions include penetrations to any number of defined airspace surfaces, but predominantly include FAR Part 77 imaginary surfaces and Terminal Instrument Procedures (TERPS) surfaces, which define the airspace surrounding runways. The most restrictive surfaces are usually the Part 77 surfaces, which are discussed below.

The FAA's Federal Aviation Regulation Part 77, titled *Obstructions Affecting Navigable Airspace* are used to determine obstructions to air navigation that may affect the safe and efficient use of navigable airspace and the operation of air navigation and communication facilities. These are commonly referred to as "imaginary surfaces" and are established with relation to the airport and to each runway. The size of each such imaginary surface is based on the category of each runway according to the type of approach available or planned for that runway. The slope and dimensions of the approach surface applied to each end of a runway are determined by the most precise approach procedure existing or planned for that runway end. The definitions of the Part 77 imaginary surfaces are listed below.

Horizontal Surface

The horizontal surface is established 150 feet above the airport elevation. The perimeter of the horizontal surface created by swinging arcs of a specified radii from the center of each end of the primary surface of each runway of each airport and connecting the adjacent arcs by lines tangent to those arcs.

Conical Surface

A surface extending outward and upward from the periphery of the horizontal surface at a slope of 20 to 1 for a horizontal distance of 4,000 feet.

Primary Surface

A surface longitudinally centered on a runway that extends 200 feet beyond each end of that runway. The elevation of any point on the primary surface is the same as the elevation of the nearest point on the runway centerline.

Approach Surface

A surface longitudinally centered on the extended runway centerline and extending outward and upward from each end of the primary surface. An approach surface is applied to each end of each runway based upon the type of approach available or planned for that runway end.

Transitional Surface

The transitional surface extends outward and upward at right angles to the runway centerline and the runway centerline extended at a slope of 7 to 1 from the sides of the primary surface and from the sides of the approach surfaces.

Table 6 summarizes the FAR Part 77 surface dimensions at Windham.

TABLE 6- FAR PART 77 SURFACE DIMENSIONS (FEET)				
SURFACE	RUNWAY 9	RUNWAY 27	RUNWAY 18	RUNWAY 36
Primary Surface Width	500	500	500	500
Horizontal Surface Radius	10,000	10,000	5,000	5,000
Approach Surface Width at End	3,500	3,500	1,500	1,500
Approach Surface Length	10,000	10,000	5,000	5,000
Approach Procedure	Non-Precision	Non-Precision	Visual	Visual
Approach Slope	34:1	34:1	20:1	20:1

Source: CHA Consulting, Inc.(2015)

In addition to Part 77, the US Standards for Terminal Instrument Procedures (TERPS) are used by FAA to develop all instrument approaches and other procedures to airports. These procedures are used by aircraft when visibility and cloud ceilings are low. TERPS are defined in FAA Order 8260.3B, and include numerous approach and departure surfaces surrounding runways. As the TERPS surfaces can be complex and differ from Part 77 surfaces, the FAA has provided overall airport design standards for obstruction clearing beyond any runway.

These obstruction clearing standards are defined in FAA Advisory Circular 150/5300-13A, Airport Design, and determined the minimum obstruction removal required for any runway end. In locations off-airport property, where the CAA does not own rights to clear all airspace penetrations, clearing the minimum design standards defined in the Advisory Circular may be the most feasible alternative.

2.0 PURPOSE AND NEED

Purpose: The purpose of the proposed obstruction removal project evaluated in this Environmental Assessment (EA) is to promote safety by bringing the airport into compliance with Federal Aviation Administration (FAA) design standards and regulations regarding clear airspace.

Need: The FAA has established airspace and design criteria to provide for safe aircraft operations. In 2012 the State conducted an obstruction study to evaluate the airspace at the Airport. Based on the FAA design criteria, the results of the analysis identified existing safety deficiencies at IJD consisting of multiple obstructions to the Federal Aviation Regulation (FAR) Part 77 surfaces, Terminal Instrument Procedures (TERPS), and Airport Design Standards. The results of this study identified that the Airport does not provide adequate airspace surfaces to its runways.

3.0 ALTERNATIVES ANALYSIS AND PREFERRED ACTION

This chapter of the Environmental Assessment (EA) addresses the potential alternatives for airport obstruction removal at Windham Airport. The recent airport obstruction study identified substantial areas of tree obstructions in all areas surrounding the airport. The ideal alternative from an aeronautical standpoint would be to remove all tree penetrations to the Federal Aviation Regulation (FAR) Part 77 "Objects Affecting Navigable Airspace" and Terminal Procedures (TERPS) surfaces. However, as part of the scoping process for this study, it was determined that this approach would be impractical, and other other alternatives would need to be developed.

The National Environmental Policy Act (NEPA) and FAA Order 5050.4B require the consideration of alternatives commensurate with the purpose and need statement. The intent is to evaluate various options that address the recognized need so that potential environmental impacts can be compared and minimized. This chapter presents the various options considered, as well as those deemed infeasible. Where appropriate, temporary access routes, removal methods, and site specific procedures are also discussed.

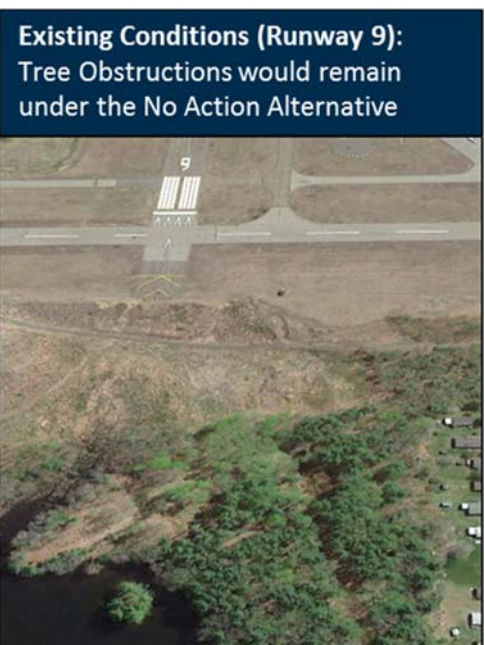
3.1 ALTERNATIVES UNDER CONSIDERATION

As part of the effort to identify project alternatives, the recommendations from the 2015 Airport Master Plan were considered, as well as agency comments and the concerns of affected parties and property owners. This coordination effort took into consideration both the environmental and socioeconomic impacts as well as project costs, which were evaluated as part of the process to refine and develop the alternatives. The results of this refinement resulted in two alternatives plus the No Action option. All three are presented herein for consideration.

3.1.1 No Action Alternative

The No Action Alternative retains all obstructions as is, with CAA taking no action to address airspace hazards. The existing trees and other obstructions would continue remain as penetrations to the local airspace. As this option results in potential dangers to users of the airport it is not desirable from the perspective of the flying public. Mitigating potential airspace hazards is an important mission of the CAA and FAA. In fact, addressing airspace hazards is required by the FAA. Although, this alternative fails to improve safety for passengers and crews operating at the airport, it serves as the baseline for comparison to the build alternatives.

The No Action Alternative has the least potential impact to the environment and effect on property owners, as there are no actions involved. This option also has no implementation costs. The No Action alternative cannot be selected as the preferred action as it would violate the airports federal obligations for hazard removal and mitigation. Airports developed or improved with federal funds are obligated to prevent the growth or establishment of obstructions in the approaches to the airport and to take reasonable actions to remove existing obstructions. This requirement is discussed in the FAA Airport Compliance Manual (FAA Order 5190.6B), which sets forth policies and procedures to be followed by public airports. This requirement is also listed in federal grant assurance No. 20, Hazard Removal and Mitigation of the Airport Improvement Program (AIP), per Federal Statute 49 U.S.C., Section 47101.



It is also noted that the No Action Alternative does not eliminate potential environmental and social impacts as the increased risk of airport operations poses an impact to airport users. Potential aircraft incidents could create environmental damage to wetlands, habitat, and endanger emergency responders and even persons and property on the ground.

The following summary box highlights potential advantages and disadvantages of the No Action Alternative.

No Action Alternative	
Goal(s): This option minimizes environmental impacts as it takes no action to remove, lower, mark, or mitigate existing or potential future airspace obstructions.	
Description: Tree obstructions have been identified at all four runway ends, Transitional Surface areas, and the outer airspace of the Horizontal and Conical Surfaces. These presumed hazards would remain in place, and potentially increase in size and penetration with additional tree growth.	
Advantages	Disadvantages
<ul style="list-style-type: none"> • No wetland impacts (temporary or permanent) • No impacts to biological resources, habitats, or species of concern • No impacts to parks or recreation • No impacts or disturbance to property owners • No project costs 	<ul style="list-style-type: none"> • Retains potential hazards to airport users • Retains a potential hazard to people and property on the ground surrounding the airport • Does not comply with FAA design standards or grant assurances • Risks future FAA funding for improvements to the airport

3.1.2 Full Obstruction Removal Alternative

The Full Obstruction Removal Alternative would clear all obstructions to the FAR Part 77 Approach and Transitional Surfaces. These surfaces are generally the most encompassing for approach protection, whereas if cleared, it would generally assure clearance of other airspace surfaces (e.g., TERPS, threshold surface, PAPI Obstacle Clearance Surface, etc.). Within the outer Part 77 surfaces (i.e., Horizontal and Conical), this alternative includes obstruction lighting for the high terrain and tree obstructions surrounding the airport.

The Part 77 Approach Surface is trapezoidal in shape, and extends away from the runway along the centerline at a specific slope, as discussed in Section 1. The specific size and slope depends upon the aircraft served and visibility minimums of the runway end. The figures included in Appendix A for each runway end illustrate the Approach Surfaces, with the blue dots depicting tree penetrations to the Approach Surface and orange dots for obstructions to the Transitional Surfaces. These dots represent a sample of the most critical obstructions, there are many more trees penetrations than shown by the dots. As such, in order to removal all obstruction per this alternative, comprehensive tree clearing would be necessary in all locations where these dots are present.

For Windham Airport the approach surfaces to the main runway includes a relatively flat 34:1 slope, which results in penetrations over a large area and includes a substantial number off-airport private and public properties (i.e., all the area with the obstruction dots). The tree obstruction areas include residential and commercial areas, public parks, and some noteworthy habitat.

For the airport as a whole, this alternative would result in approximately 250 acres of tree removal. The area of penetrations is enlarged by rising terrain beyond several of the runway ends, as the airport is generally located at a low elevation adjacent to the Mansfield Hollow Lake. For tree removals on residential and other private parcels, permanent 'avigation' easements are typically required. Avigation easements refer a permanent conveyance of airspace, from a property owner to the airport, granting the airport the right to overfly the property and remove obstructions to a defined airspace surface. These easements involve appraisals, negotiation, and acquisition of the perpetual rights to remove existing tree obstructions and prevent future obstructions.

This comprehensive alternative would satisfy FAA requirements and improve safety of all operations at the airport, as well as on surrounding properties. However, as highlighted in the summary box, this alternative would include potentially significant impacts based on the large area involved, including wetland and sensitive habitat, as well as the number of residents and properties affected. The cost and time involved to complete this alternative would be substantial, to the point that the successful completion is questionable due to the number of agreements needed with private parties.

To reduce potential environmental impacts of this Alternative, the tree clearing parameters would primarily include removal of all sizable trees, but retaining small trees and underbrush. Tree stumps would be left in place to minimize ground disturbance and potential erosion. This practice prevents or reduces impacts to wetlands, floodplains, and archeological resources. However, it is not a permanent solution as trees will eventually regrow. Nevertheless, this alternative may be considered to have a 20-year design life.

On residential properties, the removal parameters would be limited to selective removal of tall trees only, with stump grinding, top soil placement and seeding. Removal of branches, wood chips, and repair of damage to lawn areas would also be included. Small trees that are 20 feet or more below the surface would be left in place.

Overall, the tree removal approach and methods would vary based on site conditions, environmental sensitivity, and land use, with the detailed methodology determined during the design and permitting process. Removals are typically conducted during dryer periods of the years (i.e., autumn) or winter, when partly frozen ground reduces temporary construction impacts. Winter removals are also beneficial to reduce impacts to bat, bird, and plant species.

Sample: Selective tree removal underway in a residential area, with shorter trees left in place.



The following summary box highlights potential advantages and disadvantages of the Full Obstruction Removal Alternative.

Full Obstruction Removal Alternative	
Goal(s): This option removes all penetrations to the FAR Part 77 Approach and Transitional Surfaces, with obstruction lighting for the Horizontal and Conical Surfaces.	
Description: A comprehensive removal of obstructions to the inner airspace surfaces, including substantial areas and off-airport properties. This alternative provides maximum benefit to airport users and safety enhancement. Outer surfaces are protected with lighting during nighttime operations.	
Advantages	Disadvantages
<ul style="list-style-type: none"> • Clears or lights virtually all defined aeronautical surfaces • Satisfies federal design standards and assurances • Comprehensive removal of potential hazards to airport users • Improves safety for people and property on the ground surrounding the airport 	<ul style="list-style-type: none"> • Potential for impacts to wetlands (temporary or permanent) • Potential impacts to biological resources, habitats, or species of concern • Substantial coordination and negotiation needed with property owners • The need for numerous avigation easements may prevent successful completion of project and significantly extend the required schedule • High project costs • Successful completion is questionable

3.1.3 Modified Obstruction Removal Alternative

The Modified Obstruction Removal Alternative is intended to eliminate the most critical obstructions while substantially reducing the number of affected properties, and therefore potential environmental impacts. To accomplish this, the planned tree removals would focus on the penetrations to a less extensive airspace surface on locations off-airport property; on-airport areas would continue to address the Part 77 Surfaces.

The FAA has recognized that full off-airport clearing of the Part 77 surfaces can be a considerable endeavor and is often impractical due to environmental impacts, costs, and property considerations. As such, the FAA Airport Design manual (Advisory Circular 150/5300-13A) has defined a different approach surface that may be used by airport sponsors to address the most critical obstructions and maintain an acceptable margin of safety.

For distinguishing purposes, this surface is often referred to as the Threshold Surface, as not to be confused with the Part 77 Approach Surface. The Threshold Surface is designed to protect use of the runway in both visual and instrument meteorological conditions. Like the Part 77 Approach Surface, it is trapezoidal in shape and extends outward and upward from the runway along the centerline at a specific slope. However, the Threshold Surface is generally smaller in size or steeper in slope than the Part 77 Approach Surface, which reduces the size of the clearing area. The specific size and slope depends upon the aircraft served and visibility minimums of the runway end. For Windham Airport the Threshold Surface to the main runway includes a steeper 20:1 slope, which reduces the penetrations to a much smaller area compared to the Full Obstruction Removal Alternative. Penetrations to

the Threshold Surface are illustrated with a magenta (or pink) dots on the Figures. As most Threshold Surface penetrations are also Approach Surface Penetrations, these obstructions include blue dots with a magenta outline. The Modified Removal Alternative would result in approximately 140 acres of tree removal on 39 individual parcels.

The figures in Appendix A illustrate the Modified Removal Alternative using shading. Yellow shading includes general tree clearing areas; green shading illustrates reduced or selective tree removal of individual tree obstructions identified during the design process – selective thinning. This selective thinning is use in locations where fewer obstructions are present and/or sensitive environmental conditions are anticipated (e.g., wetlands, streams).

Note that Runway ends 9 and 18 have ‘displaced thresholds’, meaning the landing point is displaced from the physical end of the runway. For these runways the figures depict the Approach Surface based on the runway end, and the separate Threshold Surface based on the displaced threshold location. Runway ends 27 and 26 do not have displaced thresholds, and the approach surface and threshold surface start at the same location (overlay each other), and differ primarily in their slope. For these runways the figures only illustrated one surface.

Sample: Selective removal of trees to reduce impacts to sensitive properties.



For this alternative it is noted that Runway 27 does not have Threshold Surface obstructions; however, some tree clearing is still recommended in this unique case due to the nature of the terrain. Although there are a substantial number of tree obstructions to the Approach Surface (blue dots), at the time of the obstruction survey, there were no Threshold or TERPS surface penetrations (purple/magenta) dots. However, as the terrain beyond the runway end slopes up, and trees heights are very close to the 20:1 threshold surface, selective tree thinning is recommended. This will avoid the need for an additional environmental evaluation for the Runway 27 end as trees grow. The shaded clearing area on each map is intended to proactively improve airport safety.

Several of the parcels beyond Runway 27 are state-owned park property, including Parcels 16, 18, 36, and 40. On these parcels selective removal of the tallest trees (i.e., greatest penetrations) will be the goal of the removal project. During the design/permitting process, individual trees can be identified for removal, to the extent practical, to minimize clearing activities.

As with the Full Removal Alternative, the Modified Removal Alternative would employ the same removal methods and techniques to minimums impacts, including:

- Removal of all sizable trees, but retaining small trees and underbrush.
- Tree stumps would be left in place to minimize ground disturbance and potential erosion.
- On residential properties, removal of tall trees only, with stump grinding, top soil placement and seeding.
- Removals will be conducted during dryer periods of the years (i.e., autumn).
- Winter removals may be employed to reduce impacts to several bat and bird species, and reduce ground disturbance.

Unlike the Full Removal Alternative, the Modified Removal does not include obstruction lighting for the outer Horizontal and Conical Surface penetrations. Obstruction lighting is an added safety benefit, but requires additional property rights and access to remote locations.

The following summary box highlights potential advantages and disadvantages of the Modified Obstruction Removal Alternative.

Modified Obstruction Removal Alternative	
Goal(s): This option removes penetrations to the FAA Threshold Surface in off-airport locations (and to FAR Part 77 Approach and Transitional Surfaces on-airport)	
Description: A reduced removal alternative intended to clear the critical penetrations to the runway approaches to maintain operational safety, while minimizing the impact to off-airport properties and the natural environment.	
Advantages	Disadvantages
<ul style="list-style-type: none"> • Clears the critical obstructions • Satisfies federal design standards and assurances • Improves safety for people and property on the ground surrounding the airport • Reduces impacts to environmental resources • Reduces the number of affected property owners • Streamlines the project schedule and reduces costs 	<ul style="list-style-type: none"> • Potential impacts to wetland, biological, habitat, or species of concern remain present • Easement are required with property owners • Less critical obstructions will remain • Outer Part 77 surface are not protected with obstruction lighting

The CAA and FAA have identified this alternative as the most practical solution. This solution balances airport needs and safety while taking into account environmental considerations and minimizing both cost and private property disturbance. The review considered land use, access, ownership, wetlands, and general environmental conditions.

As discussed above, detailed illustrations of the removal areas for this alternative have been prepared for each runway end. These drawings are provided in Appendix A, and are referenced as necessary throughout the remainder of this document.

3.2 ALTERNATIVES CONSIDERED AND DISMISSED

This section includes a brief description of alternatives considered but dismissed because they were deemed infeasible.

- Removal of All Obstructions – Ideally all Part 77 obstructions would be removed, including those to the Horizontal and Conical Surfaces for the maximum safety benefit. However, due to the terrain surrounding the airport, private property involved, and potential environmental impacts, this alternative is not a realistic goal.
- Clear Cutting and Providing a Maintainable Surface – The two ‘build’ alternatives above remove tree obstructions; however, trees will eventually grow back. As an alternative, once trees are cut, the root balls could be pulled and the area graded and seeded. Thereafter the CAA would maintain the area as an open

field with regular mowing or annual brush cutting. This option was eliminated from consideration in off-airport locations as grading the tree clearing areas would have a permanent impact to any wetlands, sensitive biological habitat, and recreational areas, and archeological resources. This alternative is also extremely costly.

- Displaced Thresholds – The displacement of a runway’s landing location (i.e., threshold) will reduce the amount of tree penetrations to the Threshold Surface. Currently Runway 36 has a 799 foot displaced threshold, which reduces the need for clearing to the south of the airport. Runway 9 has a small 258 foot displacement. However, displaced thresholds reduce the landing length available for airport users. As such, this alternative was considered but additional threshold displacements were dismissed from consideration. The airport master plan has recommended the long term extension of the main runway to better accommodate corporate aircraft. Reducing the available landing length would diminish the existing capability of the airport.
- Closure of Runway 18-36 – On occasions, an airport with three or more runways, may consider closure or elimination of a runway that is considered surplus or unnecessary. However, for two runway airports such as Windham, the closure of a runway results in the lack of a crosswind runway, or backup runway availability while the primary runway is under repair or closed for snow removal or other required maintenance activities. Therefore, due to the safety benefits of Runway 18-39, this alternative was eliminated from further consideration.
- Relocation of Runways – During the airport master plan, the potential to relocate one or both runways to reduce penetrations was considered. However, there does not appear to be a shifted or reoriented runway alignment that is feasible at the airport site. In addition, the cost for a runway relocation would likely far exceeded the cost for tree clearing.

3.3 PROPOSED ACTION

Based on the evaluation identified in this section, and the review by CAA and FAA, the Modified Obstruction Removal Alternative has been chosen as the “Proposed Action” and “Preferred Alternative” for Windham Airport. This determination is primarily related to the Full Removal Alternative being considered not practical or feasible from an environmental and cost standpoint. The No Action Alternative is also not considered appropriate as it does not address the safety of airport users and does not satisfy FAA requirements or obligations.

The remainder of this Environmental Assessment document focuses on the evaluation of potential impacts of the Proposed Action, with tree removals illustrated by the yellow and green shading. The goal of the evaluation is to enable the FAA to determine if the impacts of the Proposed Action are substantial, or could be implemented without significant impact.

4.0 AFFECTED ENVIRONMENT

This chapter describes the environment that may be affected by the Obstruction Removal alternatives under consideration. The information provided in this chapter serves as the basis for the assessment of potential environmental, social, and economic impacts in Chapter 5.

Throughout Chapters 4 and 5, the discussion of potential impacts is in reference to the Preferred Alternative (i.e., the Proposed Action). It is assumed that the No Action alternatives, while undesirable, does not result in significant environmental impacts. It is also assumed that the Full Obstruction Removal Alternative will have greater impacts than the Preferred Alternative due to the more extensive area of tree removal and number of affected properties. As such, the remainder of this EA is focused on the potential impacts of the Proposed Action.

The sections below include the following:

- Land Use and Zoning
- Section 4(f) Lands
- Threatened and Endangered Species
- Wetlands



4.1 LAND USE AND ZONING

Windham Airport is located in the Town of Windham approximately three miles northeast of the Willimantic district with access from Route 6 (Boston Post Road). The airport is generally surrounded by a mix of land uses dominated by commercial and industrial uses south of the airport and along Route 6. Open spaces are located to the north and east of the airport. A significant open space adjacent to the airport is the Mansfield Hollow State Park. The Stonegate Manor Mobile Home Park, is located immediately southwest of the Airport property.

Land Use (South of Runway 27): Stonegate Manor Mobile Home Park and Commercial development

According to the Town of Windham Zoning Map (dated November 15, 2012) the Airport property is zoned General Commercial/Airport (CA2). Properties abutting the airport to the north, east and west are zoned General Commercial/Industrial (M-1). The M-1 District allows only light manufacturing to encourage the maintenance and expansion of industry and develop a more compatible relationship with surrounding residential areas.

Three Commercial Districts are located south of the Airport, south of State Route 6 (C-1, C-2, and C-4). C-1 zones allow general commercial development. Permitted structures in this area consist of business and professional offices, financial institutions, medical and dental clinics, indoor theaters and assembly halls, hotels and motels, restaurants and other food service establishments and self-storage. The C-2 zone allows general commercial development, oriented

to vehicular transportation. Permitted uses include professional services, such as banking, hair care, dry cleaning, day care, legal services, veterinary hospital, dog grooming, mobile food cart, indoor and outdoor recreational areas, civic club or lodge, places of worship, and municipal and other governmental uses. The C-4 zone allows retail/commercial development. Permitted uses include retail sales, restaurants including the sale of alcoholic beverages, financial services, multi-story hotels, and mixed use development.

To the southwest of the Airport is a Planned Development District (PDD). This area has been identified as a tract of land that can be developed, redeveloped and improved consistent with the character of the Town and the long range improvements that are consistent with the Town's Comprehensive Plan of Development.

No residentially-zoned districts are located immediately adjacent to the Airport; however three residential zones are located approximately 2,000 feet to the south Airport and the commercial areas and are zoned as R-1, R-2, and R-3. Lot size requirements range from one-half acre to 2 acres depending on the specific requirements within each zone.

Lands to the north and west of Windham Airport, are located within the Town of Mansfield. Zoning districts include Flood Hazard (FH), Rural Agricultural Residence (RAR-90), Residence (R-20), and Planned Business (PB-1).

The FH Zone is directly associated with Mansfield Reservoir and Willimantic Reservoir. Permitted uses in these areas include recreational, agricultural (excluding caged poultry or livestock), parking areas, sand and gravel facilities, hydropower facilities and swimming pools.

Areas zoned to provide residential housing include RAR-90 and R-20. RAR-90 Zones allow for single- and two-family dwellings as well as community residences such as nursing homes, hospitals, childcare, mentally ill or group homes. Churches, garages, community centers, playgrounds, schools and libraries may occur in this zone. Zone R-20 is restricted to single-family dwellings, community residences, childcare facilities and State-licensed group day care homes typically with size restrictions limited by municipal services. The area Zoned as PB-1 is located within the Route 195/Route Area. This zone primarily consists of retail, banking and restaurant type businesses.

None of the existing zoning categories are dependent on the presence of trees to function as desired or as outlined in each Town's zoning regulations.

4.2 SECTION 4(F) LANDS

Section 4(f) of the Department of Transportation (DOT) Act requires the approval of the Secretary of Transportation for any project that impacts publicly owned land such as a public park, recreation area, or wildlife refuge of national, state, or local significance or a historic site of national, state or local significance.

Mansfield Hollow State Park is adjacent the airport property to the north and east and includes a clearing area (Parcel 40). Other publicly owned parks or resources include that include affected parcels are Airline North State Park Trail (Parcel 46) and the Natchaug State Forest (Parcel 18). These will all require review by the Connecticut Department of Energy and Environmental Protection's (CTDEEP).

4.3 THREATENED AND ENDANGERED SPECIES

The habitat assessment for the Windham Airport involved agency coordination with the CTDEEP's Natural Diversity Database (NDDDB), screening through the United States Fish and Wildlife Service's (USFWS) Information Planning and Conservation System (IPaC), GIS screenings, and field investigations. Relevant agency coordination/correspondence is attached in Appendix B. Field investigations were carried out during the summer and fall of 2015.

Fish: The major waterbodies within the project area are the Willimantic Reservoir and the Natchaug River. These waterbodies support both a warmwater and coldwater fishery. An important coldwater fish species reported to occur in the system includes Brown Trout (*Salmo trutta*), which is stocked in the Natchaug River. Important warmwater fisheries include White Sucker (*Catostomus commersoni*), American Eel (*Anguilla rostrata*), Large-mouth Bass (*Micropterus salmoides*), Common Shiner (*Luxilus cornutus*), and Small-mouth Bass (*Micropterus dolomieu*) (Hagstrom et al., 1996).

Wildlife: Wildlife within the project area is expected to be diverse, representative of multiple taxa, both vertebrate and invertebrate, and include a number of species identified as species of conservation concern by state and federal wildlife regulators. For instance, among the various herpetofauna (reptiles and amphibians) known or expected to occur within the project area, three species (discussed in the Rare Species Section below) are listed as state Special Concern by the Connecticut Endangered Species Act (CTDEEP, 2015a).

A total of 94 bird species are reported from the "Airport Trail" (the trail atop the flood control dike on the end of Runway 27) by area birders. A copy of the list is available here: <http://ebird.org/ebird/hotspot/L795986>. This list includes species distributed among many taxonomic orders and families and is indicative of the species that would be expected to be found in similar habitats within the project area. It includes a variety of species considered to be of Greatest Conservation Need by the CTDEEP (2005), and a variety of migratory species whose distributional ranges overlap the project area, the protection of which falls under the jurisdiction of the United States Fish and Wildlife Service (USFWS).

The most abundant mammals observed within the project area are Gray Squirrel (*Sciurus carolinensis*), Red Squirrel (*Scurius vulgaris*), and Eastern Chipmunk (*Tamias striatus*). Signs of White-tailed Deer (*Odocoileus virginianus*), including scat, tracks, and bedding areas in tall grass, were also frequently noted and adult deer were often flushed while walking through dense woodland vegetation. Burrows of Woodchuck (*Marmota monax*) and Red Fox (*Vulpes vulpes*) were also encountered on or adjacent to the Airport. Signs of Beaver (*Castor*) are evident

along the Natchaug River parcels and on Parcel Nos. 44 and 46 (refer to Wetlands graphic for parcel locations). Other abundant mammals include Raccoon (*Procyon lotor*), Opossum (*Didelphimorphia*), Eastern Cottontail (*Sylvilagus floridanus*), a variety of rodents and arboreal-roosting bats. One species reported to potentially occur on site – the New England Cottontail (*Sylvilagus transitionalis*) (discussed below), is listed as a Federal Candidate Species for inclusion on the Federal Endangered Species Act. Another species, the Northern Long-eared Bat (*Myotis septentrionalis*) has recently been listed in the Endangered Species Act as threatened and is reported by the USFWS to have a distributional range that overlaps the project area.

Additionally, many invertebrate species of conservation concern are known or expected to occur within or adjacent to Windham Airport property and therefore have potential to occur within the certain habitats in or adjacent to the obstruction removal areas. They include both aquatic organisms (certain freshwater mussels and odonata), and a suite of terrestrial butterflies and moths.

The wildlife species of conservation concern and their respective habitats are presented in Section 5.8.

Plants: The project area is characterized by a temperate deciduous forest dominated by tall growing broadleaf trees that often grow to form dense continuous-canopy stands or forests. Lower layers of small trees and shrubs are weakly developed in some areas and dense in others. The most abundant forest type that occurs within the project area includes mixed deciduous hardwoods, Appalachian oak, and pine-oak associations. Non-forested habitats include marshland, grasslands, old field / early successional habitats, lawn areas, and various miscellaneous man-made habitats such as mowed fields. These habitats, their characteristic vegetation, location in the project area and characteristic wildlife species of conservation concern are provided in Table 7 below. Species of conservation concern are further discussed below.

Rare Species: A review of CTDEEP Natural Diversity Database Geographic Information System mapping revealed a number of mapped locations of rare breeding species sites. The CTDEEP Natural Diversity Data Base (CTDEEP, 2015b) reported 30 species listed as endangered, threatened, and special concern species as now or formerly occurring on or adjacent to the Windham Airport property. These species are identified in the CTDEEP response letter which is provided in Appendix C, and also in Section 5.7.

Two critical habitats were also identified within the project area. They are as follows:

- Atlantic White Cedar Basin Swamp (located on Parcel 15 and part of Parcel 16), and
- Sand Barren (located intermittently on the airport property with the core habitat between Runways 18 and 27; and off site on Parcel 1).

Additionally, the USFWS Online Screening Tool (IPAC) was referenced to obtain information on species listed by the federal Endangered Species Act which identified one rare mammal species - the Northern Long-eared Bat (*Myotis septentrionalis*) - and 16 migratory bird species with distributional ranges that include the project area. A copy of this report is provided in Appendix C.

In addition to those rare species reported by state and federal natural resource conservation personnel, a pair of Northern Goshawks (*Accipiter gentilis*) were noted flying out of a dense conifer stand on Parcel 40 during field reconnaissance conducted for this project in July, 2015. This species is listed as Threatened by the CTDEEP (CTDEEP, 2015a).

Table 7: Existing Habitats, Associated Species of Conservation Concern and their Respective State and Federal Status

Habitat	Characteristic Vegetation	Location in the Project Area	Species of Conservation Concern	CT Status	Federal Status
Deciduous Hardwood Mesophytic Forests:	Sugar Maple, Tulip, Black Birch, White Ash, Red Maple. Ironwood and Witch-hazel often form sub-canopy layers; Characteristic herbs: Canada Mayflower, Christmas Fern, and Wood Fern	1, 36, 39, 40	Wood Thrush	GCN – Most Important	Conservation Concern
			Worm-eating Warbler	GCN – Very Important	Conservation Concern
			Northern Long-eared Bat	Endangered	Threatened
Appalachian Oak Forest	White Oak and Northern Red Oak, Black Birch, Black Cherry, Sassafras, and various hickories; Maple-leaved Viburnum, Lowbush Blueberry, huckleberry.	1, 18, 40	Sleepy Duskywing	Threatened; GCN – Very Important	
			Horace's Duskywing	Special Concern; GCN – Important	
			Worm-eating Warbler	GCN – Very Important	Conservation Concern
			Northern Long-eared Bat	Endangered	Threatened
Mixed Deciduous / Coniferous Forests and Woodlands	White Pine with Northern Red Oak, Black Oak, and various hickories. Eastern Hemlock is present at some locales; heath shrubs typically dominate the shrub layer.	1, 11, 15, 17, 44, 46	Henry's Elfin	Special Concern GCN – Important	
			Various rare Noctuid Moth species		
			Oblique Zale	Special Concern GCN – Important	
			Prairie Warbler	GCN – Most Important	Conservation Concern
			Northern Long-eared Bat	Endangered	Threatened
Red Maple Forest/ Swamps	Red Maple is dominant; Yellow Birch & American Elm are also present. Shrub layer may contain Winterberry, Sweet Pepperbush, Spicebush, Silky Dogwood, alder. Herbs typically include Skunk Cabbage, Tussock Sedge, & Cinnamon Fern	1, 16, 18	Pale Green Orchid	Special Concern	
			Eastern Ribbon Snake	Special Concern GCN – Very Important	
			Wood Turtle	Special Concern GCN – Very Important	
			Canada Warbler	GCN – Very Important	Conservation Concern
			Rusty Blackbird		Conservation Concern
			Northern Long-eared Bat	Endangered	Threatened
White Pine Forest/ Stand	White Pine in the tree layer; sparse to non-existent shrub and herb layers	1, 11, ,40	Northern Goshawk	Threatened GCN – Most Important	
			Saw-whet Owl	Special Concern	
			Northern Long-eared Bat	Endangered	Threatened
Hemlock Forest/ Stand	Eastern Hemlock dominant in the tree layer; Sparse to non-existent shrub and herbaceous layer	1, 40	Northern Goshawk	Threatened GCN – Most Important	
			Saw-whet Owl	Special Concern	
			Northern Long-eared Bat	Endangered	Threatened
Atlantic White Cedar Bog	Atlantic White Cedar occurs as a pure stand	15, 16	Hessel's Hairstreak	GCN – Most Important	
			Saw-whet Owl	Special Concern	
Shrubland / Old Field	Gray Birch, Sassafras, various cherry species in the sapling layer; Sweet Fern, Staghorn Sumac and various brambles	Runway 18, Runway 9; Parcel 1	New England Cottontail	GCN – Most Important	Proposed Threatened
			Black-billed Cuckoo	GCN – Very Important	Conservation Concern

Table 7: Existing Habitats, Associated Species of Conservation Concern and their Respective State and Federal Status

Habitat	Characteristic Vegetation	Location in the Project Area	Species of Conservation Concern	CT Status	Federal Status
	often interspersed with non-native invasive shrubs.		Golden-winged Warbler	Endangered GCN – Most Important	
			Blue-winged Warbler	GCN – Most Important	Conservation Concern
			Fox Sparrow		Conservation Concern
Marshlands	Includes persistent and non-persistent emergent grass and forbs dominated by Phragmites, Cattail, and various sedges	Parcel 40	American Bitten	Endangered GCN – Very Important	Conservation Concern
			Least Bittern	Threatened GCN – Most Important	Conservation Concern
			Pied-billed Grebe	Endangered Most Important	Conservation Concern
Grasslands	Little Bluestem and other warm-season grasses, interspersed with various forbs such as goldenrods, asters, Common Mullein, Evening Primrose, Bedstraw, English Plantain, Round-headed Bush-clover, Queen Anne's Lace, etc.	Runway 9, Runway 18, Runway 27, Runway 36; Parcel 47,	Eastern Hog-nose Snake	Special Concern GCN – Very Important	
			American Kestrel	Special Concern GCN – Most Important	
			Upland Sandpiper	Endangered GCN – Most Important	Conservation Concern
			Short-eared Owl	Threatened (wintering) GCN – Important	Conservation Concern
			Horned Lark	Endangered GCN – Most Important	
			Grasshopper Sparrow	Endangered GCN – Most Important	
			Savannah Sparrow	Special Concern GCN – Important	
			Bobolink	Special Concern GCN – Very Important	
			Eastern Meadowlark	Threatened GCN – Most Important	
Misc (Ruderal) Habitats	Lawn (turf) grasses, Sheep sorrel, cinquefoil, English Plantain, White Clover, Dandelion, various ornamental landscape plantings, naturalized and non-native invasive weeds	Parcels, 12, 13, 14, , 41, 42, 43 45, 47			
Natchaug River		Parcel 1, 40	Mustached Clubtail	Special Concern GCN – Important	
			American Rubyspot	Threatened GCN – Very Important	

Table 7: Existing Habitats, Associated Species of Conservation Concern and their Respective State and Federal Status

Habitat	Characteristic Vegetation	Location in the Project Area	Species of Conservation Concern	CT Status	Federal Status
			Brook Floater	Endangered GCN – Most Important	Proposed Threatened
			Eastern Pearlshell	Special Concern GCN – Important	
Willimantic Reservoir	Open water	Parcel 1	Bald Eagle	Threatened GCN – Important	
			migratory waterfowl		Conservation Concern

GCN = Greatest Conservation Need as identified in the draft State Wildlife Action Plan (CTDEEP, 2015c)

Note: The USFWS also reported the American Oystercatcher (*Haematopus palliatus*) as having a distributional range that overlaps the project area. However, there are no inland records of this coastal species in CT (Zeranski and Baptist, 1990; Bevier, 1994) so it was not considered further in this document.

The species that have been identified by CTDEEP as being documented within the project area and any required mitigation is presented and discussed in Section 5.7 Fish, Wildlife and Plants.

4.4 WETLANDS

To understand the extent of wetland resources within potential obstruction removal impact areas, a review of National Wetland Inventory (NWI) maps and a field investigation was conducted. The objective of the field investigation was to determine the approximate locations, extent, and connectivity of the wetlands and associated watercourses on those parcels identified for obstruction removal (tree cutting). A basic understanding of the wetlands and their position within the greater landscape helps to give a better insight into the potential habitat impacts that may occur as a result of the obstruction removal project.

While the wetlands within the project area were not formally delineated, observations made in the field by a team of wetland scientists essentially encompassed the investigation of the criteria typically required for a formal delineation. These criteria for state and federal wetlands include hydric soil conditions, hydrophytic vegetation, and evidence of hydrology. Connecticut inland wetland boundaries are determined by the limit of any of the soil types designated as poorly drained, very poorly drained, alluvial, and flood plain by the National Cooperative Soils Survey.

Windham Airport is situated on an expansive plain surrounded by forested land to the north and west, the Willimantic Reservoir and the Army Corps of Engineers (ACOE) Flood Control Dike to the northeast and east, commercial property to the southeast and south, and residential property to the southwest. In general, forested wetlands dominated by red maples (*Acer rubrum*) and northern spice bush (*Lindera benzoin*) are the most abundant wetland type in the vicinity of Windham Airport. Additionally, there is a strong evidence of beaver activity, as evidenced by the dammed streams and ponds to the south of the Airport (south of Runway 36) and south of commercial property located along Route 6. The largest contiguous wetlands are located to the north and east of the airport property past the Flood Control Dike. These wetlands are a large interspersed system created by the impoundment of the Natchaug River and include lacustrine (lake), riverine (river) and vegetated inland wetland (palustrine) areas interspersed within the system.

On the airport property there are various small wetland pockets within the forested areas at the north end of Runway 18. The majority of these wetlands are small ponds with predominantly open water areas with emergent

or scrub/shrub shores. A small forested wetland also occurs in this general area but outside of the delineated Transitional and Approach Surface Obstructions.

Within the airport property on the eastern side of the airport, just east of the Runway 27 tarmac, palustrine emergent wetlands have formed in drainage swales and low-lying areas. Likewise, a vegetated wetland has formed to the west of Runway 9 and includes forested, emergent and interspersed emergent-scrub/shrub zones leading to an open water embayment of Willimantic Reservoir.

Off airport property, but within the designated obstruction removal limits, several private parcels have been identified as having potential for wetland impacts associated with this project. These parcels have been individually numbered and were screened for wetland and watercourse resources that may occur within the anticipated impact zones. They include the following (Refer to Appendix A for parcel locations – which are denoted by red line-work and numeric labels).

Parcel 1: Includes the Willimantic Reservoir and the vegetated zones surrounding the embayment that lies west of Runway 9.

Parcel 13: Is located to the south of the airport across Route 6. It has a small open water detention/retention basin and a drainage ditch vegetated with emergent vegetation which includes cattail (*Typha latifolia*).

Parcel 15: Is also located to the south of the airport across Route 6 and contains an Atlantic White Cedar swamp owned by the Joshua's Trust land trust organization. This swamp is dominated by a dense continuous stand of Atlantic White Cedar the majority of which lies outside of the tree cutting area do to the low ground level of the swamp ground. A few approach surface obstructions are located in the adjacent upland, on higher terrain, and are easily accessed via upland areas along Route 6. A portion of this swamp extends onto the adjacent Parcel 16 where it then transitions into a Red Maple swamp.

Parcels 17 and 18: Red Maple swamps occur on these two parcels with Parcel 18 also containing a small pond. The pond outlets via a culvert under Route 6 where a small watercourse carries flow onto Parcel 36 where the stream widens out into a Red Maple and Northern Spicebush forested system.

Atlantic White Cedar swamp can be seen in the background of the taller deciduous trees along Route 6.



Parcel 39: Is located to the northeast of the airport (Runway 27) and across the ACOE Flood Control Dike and includes the Natchaug River as the primary regulated wetland/watercourse feature. The Natchaug River is an upper perennial stream with little to no developed floodplain and steep riverbank slopes. Both transitional and approach surface obstructions have been identified within the forested riparian zone on this parcel

Parcel 40: Contains the most wetlands within or adjacent to the obstruction removal areas in terms of frequency and total coverage. Beginning on the eastern end of the project area and proceeding westward, the following wetland resource areas were observed on this parcel:

- A palustrine wetland (Red Maple Swamp) surrounded by deciduous, coniferous, and mixed forest stands
- A reach of the Natchaug River where it meets the Fenton River

- Interspersed palustrine emergent, aquatic bed, and unconsolidated bottom wetlands located to the northeast of Runway 27 across the ACOE Flood Control Dike and associated with the inundated area of the Willimantic Reservoir



- The Willimantic Reservoir located to the north and west of Runway 18 and west of Runway 9
- An embayment of the Willimantic Reservoir with interspersed palustrine forested, palustrine emergent and palustrine scrub/shrub zones located to the west of Runway 9

On Parcel Nos. 44 and 46, a forested swamp with standing dead wood and open water has been formed by beaver activity that has dammed a drainage course bisecting those parcels.



Each parcel within the designated obstruction removal areas for which a wetland resource is mapped by NWI, observed in the field during site reconnaissance, or both is listed in Table 8 below.

Parcel No.	Wetlands Cover Types and NWI Classification	Location	Major Wetland Plant Associations / Types
1	Palustrine Open water Unconsolidated Bottom (PUB) (unnamed pond); Lacustrine waterbody (Willimantic Reservoir); Palustrine Emergent (PEM) and Palustrine Scrub/Shrub (PSS) wetlands	North of Runway 18, West of Runway 9	Various woody wetland shrubs (e.g., alder, dogwoods, etc.) interspersed with sedges, ferns, and other herbaceous hydrophytes
13	Palustrine Emergent marsh (PEM)	Detention basin at the south side of parcel ; Drainage ditch at east side	Cattail, and other herbaceous plants
15	Palustrine Forested Wetlands (PFO) - Red Maple Swamp; Atlantic White Cedar Bog	Southeast of Runway 27	Red Maple, Atlantic White Cedar
16	PFO (Atlantic White Cedar Bog)	Southeast of Runway 27	Atlantic White Cedar Bog
17	PFO (Red Maple Swamp)	Southeast of Runway 27	Red Maple, Pin Oak
18	PUB (Ham's Pond)	Southeast of Runway 27	Red Maple and various wetland shrub around shore
36	PFO (Red Maple Swamp)	East of Runway 27	Red Maple Swamp
39	Riverine Upper Perennial watercourse (RU3): Natchaug River	Northeast of Runway 27	
40	Willimantic Reservoir, Natchaug River, Palustrine open water aquatic bed (PAB), PEM, and PFO (Red Maple Swamp)	Northeast of Runway 27	Forest Areas: Red Maple, Sweet Pepperbush, Winterberry, Skunk Cabbage, Sensitive Fern Scrub/Shrub areas: Alder, Water Willow, Silky Dogwood Emergent areas: Various mixes of floating-leaved aquatics, tussock-forming perennials, and dense grasses and sedges
44	PFO and PAB	Southeast of Runway 36	Red Maple, Tussock Sedge, Skunk Cabbage
46	PFO (Red Maple Swamp)	South of Runway 36	Flooded Red Maple stand
47	PFO (Red Maple Swamp)	South of Runway 36	Flooded Red Maple stand

5.0 ENVIRONMENTAL CONSEQUENCES

This chapter describes the potential environmental, social, and economic impacts associated with the Preferred Alternative (i.e. Proposed Action). The analysis in this chapter was conducted in accordance with FAA Order 5050.4B “*National Environmental Policy Act (NEPA) Implementing Instructions for Airport Actions*,” FAA Order 1050.1E “*Environmental Impacts: Policies and Procedures*,” and applicable federal and state environmental regulations. Based on the information in this chapter, coordination with federal and state agencies, and review of public comments, the FAA will determine if the Preferred Alternative would involve significant impacts. The FAA will also ensure that the document presents a full, accurate, and fair assessment of the environmental consequences of the proposed action.

Consistent with the FAA Orders 5050.4B and 1050.1E the following impact categories are addressed:

- Air Quality
- Coastal Resources
- Compatible Land Use
- Construction Impacts
- Department of Transportation Act: Section 4(f)
- Farmland
- Fish, Wildlife, and Plants
- Floodplains
- Hazardous Materials, Pollution Prevention, and Solid Waste
- Historical, Architectural, Archeological, and Cultural Resources
- Light Emissions and Visual
- Natural Resources and Energy Supply
- Noise
- Socioeconomic Impacts, Environmental Justice, and Children’s Environmental Health and Safety Risks
- Water Quality
- Wetlands
- Wild and Scenic Rivers

Anticipated permit requirements and a potential impact summary are provided at the end of the chapter.

5.1 AIR QUALITY

The Clean Air Act Amendments of 1990 authorized the U.S. Environmental Protection Agency (EPA) to establish standards, known as the National Ambient Air Quality Standards (NAAQS), which are considered harmful to the public and the environment.

The Clean Air Act established two national air quality standards, including Primary and Secondary Standards. Primary Standards were established to set limits on harmful pollutants to protect the public and sensitive receptors (asthmatics, children and the elderly). Secondary Standards were set to protect the public welfare by accounting for the effects of air pollution on the public welfare, which includes protection against impaired visibility, damage to animals, soil, vegetation, crops, buildings, and other aspects of the general welfare.

The EPA has established NAAQS for the following six “criteria air pollutants” in order to protect the health and welfare of the general public. These pollutants are listed below.

- Ozone (O₃)
- Carbon monoxide (CO)
- Particulates (PM-10 and PM 2.5)
- Sulfur dioxide (SO₂)
- Nitrogen dioxide (NO₂)
- Lead (Pb)

According to the Connecticut Department of Energy & Environmental Protection (CTDEEP), Windham County is currently in attainment for all criteria air pollutants with the exception of 8-hour Ozone. Windham County is part of the 5-county Greater Connecticut Area and is classified as a marginal Nonattainment Area and subject to planning and emission reduction requirements as specified in the Clean Air Act.

Section 176(c) of the Clean Air Act as amended in 1990, requires that Federal actions conform to the appropriate Federal or State air quality plans in order to attain the Act's air quality goals.

Conformity is defined as conformity to the implementation plan's purpose of eliminating or reducing the severity and number of violations of the NAAQS and achieving expeditious attainment of such standards, and that such Federal activities will not:

- (1) Cause or contribute to any new violation of any standard in any area
- (2) Increase the frequency or severity of any existing violation of any standard in any area
- (3) Delay timely attainment of any standard or any required interim emission reductions or other milestones in any area.¹

The obstruction removal project will improve safety, but will not change the operating characteristics of the airport. There will be no changes in activity levels, aircraft types or other facilities and as such there will be no changes in air quality as a result of this work. Thus, the three criteria above are satisfied. No impacts are anticipated and therefore no further evaluation is needed.

5.2 COASTAL RESOURCES

The CTDEEP administers the Connecticut Coastal Management Program, enacted in 1980 to protect coastal resources, including restoration of coastal habitat, improve public access, promote harbor management, and regulate work within tidal, coastal and navigable waters.

Windham Airport is not located within a designated Coastal Zone, and therefore there will be no impact to designated coastal areas as a result of the Preferred Alternative. As a result, no additional evaluation is necessary.

5.3 COMPATIBLE LAND USE

Windham Airport is zoned General Commercial/Airport (CA2); properties abutting the airport to the north, west and east are zoned General Commercial/Industrial (M-1) which is designed to encourage the maintenance and expansion of industry and to develop a more compatible relationship with surrounding residential areas. Immediately south of the Airport and Route 6 are Commercial Districts C-1 and C-2. The closest residential zoning district adjacent to the Airport is approximately 2,000 feet to the south.

¹ U.S. Department of Transportation, FAA Order 1050.1E, Appendix A, Section 2.1f

Portions of the Runway 18 Approach and Runway 9 approach extend into the Town of Mansfield. Relevant zoning in the Town of Mansfield includes Flood Hazard (FH), Rural Agriculture Residence (RAR-90), Residence (R-20), and Planned Business (PB-1).

Runway 9 Approach

General land use consists within the approach includes undeveloped, residential, public works (Windham Waterworks) and commercial uses (hospital, supermarket). Affected areas are depicted in mapping located in Appendix A and is limited to Parcel 1. The potential tree clearing within Parcel 1 includes the Town owned land adjacent to the Willimantic Reservoir. These areas have all been identified for selective removal of trees. Tree removal areas both north and south of the Runway 9 approach and located on Airport property are also delineated on this map. Tree removal in these areas will reduce the existing visual buffers between the airport property and several roads within Stonegate Manor Mobile Home Park including James Street, Circle Drive and some portions of Carolyn Street.

Runway 27 Approach

Lands at the end of Runway 27 are generally vegetated; the majority of affected parcels (Appendix A) are forested, vacant parcels, however several affected parcels are developed with commercial structures. As shown in mapping located in Appendix A, selective clearing on commercial properties is limited to parcels 12-14. The selective removal of potential obstructions will not impact land use or zoning in this area.

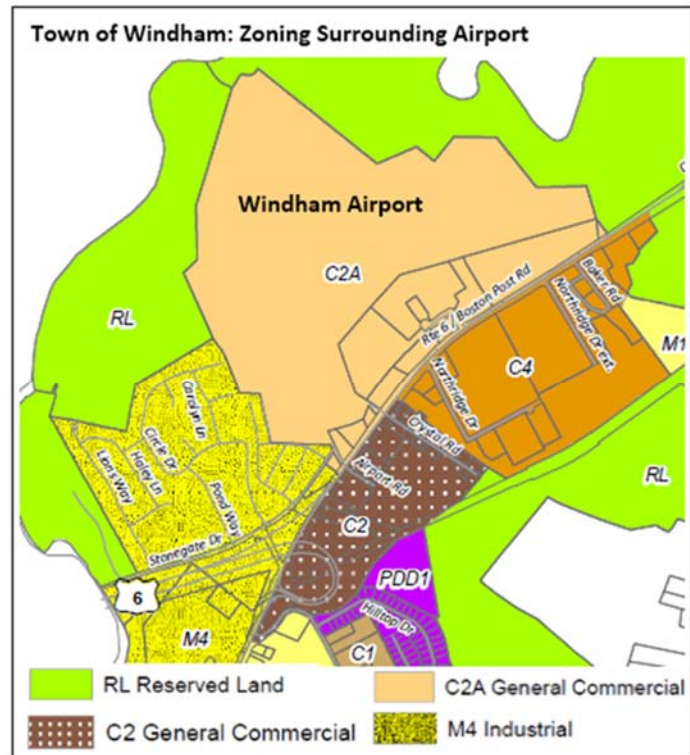
Runway 18 Approach

Lands within the Runway 18 approach include both cleared and forested areas. The affected parcel, Parcel 1 has been identified and discussed as part of the review of the Runway 9 approach. There will be no impacts to compatible land use or zoning as a result of the removal of obstructions on the Windham Airport property or on the property identified as Affected Parcel 1 (Appendix A).

Runway 36 Approach

Land use within the Runway 36 approach is a combination of residential, transportation (highway), undeveloped, commercial and residential. Affected parcels that include potential obstructions are located proximate to the airport (Appendix A, Parcels 42, 43, and 46). Parcels 42 and 43 are commercial, selective removal of trees will not affect land use or zoning. Parcel 46 is undeveloped but is adjacent to a business and a small section of the Airline North State Park Trail. However, the selective removal near the trail will retain a vegetative buffer as to avoid changing the overall character of this section. The potential removal of trees will not impact existing zoning or use of this or adjacent parcels.

Overall the project does not alter airport operations or flight patterns and therefore will not have any impacts on adjacent land use or zoning. The removal of trees will not impact the existing use of these parcels.



5.4 CONSTRUCTION IMPACTS

Potential construction impacts from the removal of trees is not expected to be significant. Tree removal or installation activities may produce temporary environmental disturbances, such as noise from equipment, air quality impacts from dust, minor soil erosion and sedimentation, & minor disruption of local traffic patterns. These impacts can be mitigated through careful planning and consideration, as well as quality construction supervision.

5.4.1 Construction Noise

As with any construction project, the use of construction equipment and construction traffic will temporarily generates noise. All construction equipment and vehicles will be properly maintained, tuned to minimize the potential for noise. Upon project completion, ambient noise levels will return to pre-existing conditions.

5.4.2 Air Quality

Air quality impacts during construction would be limited to short-term increases in fugitive dust, particulates, and localized pollutant emissions from construction vehicles and equipment during tree removal. As stated above, all construction equipment should be properly maintained and outfitted with emission reducing exhaust equipment. The work involves the selective removing of trees that have been identified as obstructions; other vegetation and ground covers will not be removed, protecting the soil from erosion and thereby limiting the potential for increases in fugitive dust. Adherence to the soil and erosion control plan as required in the Stormwater Pollution Protection Plan (SWPPP) will further mitigate any potential impacts.

5.4.3 Sedimentation & Erosion

The potential for erosion during the selective removal of obstructions is minimal as small trees and ground covers will remain and no new impervious surfaces will be created as part of construction operations. Adherence to the soil and erosion control plan as required in the SWPPP will further mitigate any potential impacts.

5.4.4 Traffic

Construction vehicles will enter and exit local roads throughout the duration of construction. Impacts to traffic patterns will be limited as all construction activities will be performed beyond the limits of the public roadways. In order to limit impacts related to construction impacts the community will be notified of the start date of this project and alert them to potential construction traffic.

Temporary Construction Impacts



5.5 DEPARTMENT OF TRANSPORTATION ACT: SECTION 4(f) LANDS



Section 4(f) of the Department of Transportation (DOT) Act of 1966 states that the Federal Highway Administration and other DOT agencies cannot approve any program or project that requires the use of land from publicly owned recreation areas, parks, wildlife and waterfowl refuges, or public and private historical sites unless there is a determination that there is no feasible and prudent alternative, or the action includes all possible planning to minimize harm to the property resulting from use.

The proposed Project includes the removal of obstructions (trees) associated with FAA design standards and Federal Aviation Regulations (FAR) Part 77 approach surface (on airport property), in order to maintain safe, navigable airspace beyond the ends of runways and will not require removal of any trees in a designated recreation, park, or wildlife area, with the exception of Mansfield Hollow State Park.

The project will require selective thinning of trees within Mansfield Hollow State Park (Parcel 40). These obstructions are too close to the primary landing runway during reduced visibility conditions could create a potential hazard for operations during weather conditions that are not ideal (e.g. clear, no wind, etc.). This area of the park is not developed with any facilities, and consist of a mature stand of trees, available for passive recreational use. Likewise a small area of Natchaug State Forest located East of Runway 27 (Parcel 18), south of Boston Post Road will be subject to selective thinning. This area of the State Forest is also undeveloped and available for passive recreational use. Upon completion of the tree thinning operation, the use and access to these areas of the State Park and State Forest will remain unchanged.

Another publicly owned recreation area is the Flood Control Levee foot path located on top of the flood control levee to the north (Parcel 39). There are no trees on either side of the trail in this area and as such there will be no change to the surrounding vegetation or the use of the trail.

Airline State Park Trail which runs west to east is located south of Runway 36. Selective thinning has been identified on Parcel 46 adjacent to the Trail and minimally extending into the trail Right of Way. Although the trail is bordered by forested areas in this location it is also in close proximity to a housing development and several roadways. No tree removal will occur on the trail itself and the project will not impact its use.

5.6 FARMLAND

The Farmland Protection Act (FPA) of 1981 authorizes the U.S. Department of Agriculture to develop criteria for identifying the effects of federal programs on the conversion of farmland to non-agricultural uses. The prime and unique farmland regulations require that the U.S. Department of Agriculture determine whether land affected by any proposed action is prime and unique farmland. If the proposed project involves the acquisition of farmland that would be converted to non-agricultural use, it must be determined whether any of that land is protected by the FPA.

The Natural Resource Conservation Service (NRCS), within the United States Department of Agriculture (USDA) has established guidelines under the Farmland Protection Policy Act (FPPA) for federal activities that involve directly undertaking, financing, or approving a project that would impact farmland soils. The guidelines recognize that the quality of farmland varies based on soil conditions, and places higher value on soils with high productivity potential. To preserve these highly productive soils, the NRCS classifies soil types as prime farmland, farmland of statewide importance, farmland of local importance, or unique farmland. The NRCS requires that soils in these categories be given proper consideration before they are converted to non-farming uses by federal programs. The NRCS policy and procedures on prime and unique farmland are published in the Federal Register (Volume 43, No. 21, January 31, 1978).

According to Web Soil Survey from the NRCS, the following soil types identified as prime farmland or farmland of statewide importance are mapped in the vicinity of the potential affected parcels.

Prime Farmland:

- Ninigret and Tinsbury, 0-5% slopes (21A)
- Merrimac sandy loam, 0-3% slopes (34A)
- Merrimac sandy loam, 3-8% slopes (34B)
- Elko silt loam, 3-8% slopes (84B)
- Pootatuck fine loamy sand (102)

Farmland of Statewide Importance:

- Hinckley gravelly sandy loam, 3 to 15% slopes (38C)
- Roppowam fine sandy loam(103)

These soils are generally located in areas that are forested or developed for non-agricultural uses.

The implementation of the appropriate soil erosion controls mitigates the potential for impacts to farmland soils from tree removal activities. The tree removal locations do not contain any active farmland areas and therefore no adverse effects or significant impacts are expected to occur. Furthermore, the project does not include any development activities, new impervious areas, or acquisition of property.

5.7 FISH, WILDLIFE, and PLANTS

Upland forested habitat would be directly impacted by the proposed tree clearing activity (See discussion of Forest Wetland habitat in Section 5.18). Various forest or woodland areas located within the project area ranging in size from a few acres to approximately 25 acres could be impacted by individual tree cutting, stand cutting, or clear cutting. Un-fragmented forest cover typically provides habitat for successful breeding populations of “area-sensitive” species. Generally speaking, clear-cutting and other timber treatments that would result in the disruption of contiguous canopy coverage in these habitats may render such habitat unsuitable for those species, many of which are species of state and federal conservation concern. Birds are the most prevalent group of vertebrate wildlife occurring in the obstruction removal areas, with some species requiring large tracks of undisturbed forest for successful breeding.

When compared to the smaller forested blocks, un-fragmented forest blocks larger than 500 acres tend to have higher successful breeding rates of forest interior bird populations and are also important for other larger vertebrate organisms as well. Habitat blocks between 125 and 500 acres in size are considered to have less but still fair to important value for forest interior avifauna, especially if the surrounding landscape is not intensely

developed. Forest blocks smaller than 125 acres can be considered to have poor to fair value for supporting populations of forest interior species. The forest blocks at Windham Airport that lie within the obstruction removal area are smaller than 125 acres, and range in size from 20 to 100 acres.

Additionally, many of the forest blocks at Windham Airport are linearly configured which means that negative edge effects tend to penetrate the forest interior further reducing their value to interior species. Therefore, the loss of mature forest cover from the obstruction removal areas is not expected to have a significant negative impact to local populations of forest interior species. Among the USFWS list of species of conservation concern identified in the IPAC report, the Northern Long-eared Bat, Wood Thrush (*Hylocichla mustelina*) and Worm-eating Warbler (*Helmitheros vermivorum*) are considered forest species that could be negatively impacted by the loss of forest cover should these species occur in the forest within the obstruction removal areas. So too is the Northern Goshawk – a pair of which was observed on Parcel 40 – during site reconnaissance conducted in July 2015 for this project. If necessary to ascertain the presence of these species, surveys during the breeding season could be conducted by qualified personnel using the appropriate methodology.

White Pine stand – Parcel 40



There are stands of climax coniferous forest that provide suitable summer roosting habitat for male bats and large diameter shade trees for female bats, so the site appears to offer microhabitat features required by the species. What is uncertain is whether or not the site meets suitability on a landscape level (e.g. large contiguous forest blocks with occasional natural gaps and water features). The IPAC report is limited to listing the site as occurring within the species known distributional range. No information was available we have no data on whether or not it was actually detected on or adjacent to the site and whether or not there are known hibernacula.

A preliminary estimate of Impact to contiguous canopy coverage (either through potential clearing or selective removals) within existing forest habitat blocks at each Windham Airport runway end as a result of the proposed action is as follows:

- Runway 27 – Approximately 26 acres out of an existing 92-acre contiguous forest block
- Runway 18 – Approximately 20 acres of an existing 20-acre block
- Runways 9 – Approximately 13 acres of an existing 50-acre block
- Runway 36 – Approximately 9.5 acres of an existing 50-acre block. The 9.5 acres includes 5.5 acres adjacent to Runway 36 plus 4.0 acres from a forested patch located across Route 6 to the south.

Regardless of the limited value of the forests to interior birds, the forested habitat blocks at Windham Airport that lie within the obstruction removal areas do provide wildlife habitat to edge species and species that do not require large contiguous tracts of forest interior (habitat “generalists”). These forest blocks also serve other ecological functions and values as well which may include but may not necessarily be limited to the following:

- Soil generation
- Soil and bank stabilization
- Temperature moderation
- Wind reduction

- Water retention
- Nutrient and production export
- Noise mitigation
- Pollution retention
- Aesthetic value

The loss of a majority of these forest ecological functions and values would be avoided or minimized by employing best management practices (BMPs) for timber treatment implementation, erosion and sedimentation control, seasonal restrictions, and by felling timber in place with no or minimal harvest. No large-scale clearing or grubbing across the entire obstruction removal area is included as part of the Proposed Action. Therefore, soil stabilization is not expected to be a major issue as large areas of bare soil will not be generated and exposed to the erosive forces of wind and water. Implementation of erosion and sedimentation control BMPs would further reduce the risk of soil loss from the occasional areas where limited amounts of soil disturbance might occur from equipment access.

Removal of the mature tree cover from within the obstruction removal areas at Windham Airport in the manner discussed above would actually serve to improve the habitat for the majority of the species of conservation concern identified by the CTDEEP and USFWS as having potential to occur within the project area. Many of the species listed by these agencies are shrub-land or barren species and, therefore forest interiors do not meet their habitat requirements. Upland species that would benefit from mature tree canopy removal and the subsequent and expected development of a robust shrub layer include the New England Cottontail, the various rare barren species lepidoptera (butterflies and moths), the Black-billed Cuckoo (*Coccyzus erythrophthalmus*), Prairie Warbler (*Setophaga discolor*), Blue-winged Warbler (*Vermivora cyanoptera*), and Fox Sparrow (*Passarella iliaca*). The suite of rare barren lepidoptera species especially stand to benefit from mature tree removal as many of these species require dsyclimax habitats – habitats which are maintained by one or more natural processes to prevent the succession to climax forests. Historically, fire played a major factor in the maintenance of the barrens habitat but has since been prevented and controlled. Likewise, the lands within the obstruction removal areas are not managed by other methods that prevent ecological succession such as grazing or mowing. Tree clearing in the manner described above would act as the disturbance mechanism needed to offset succession.

Conclusion: For the forest/woodland dependent species that may occur within the forest blocks subject to tree cutting (i.e., Northern Long-eared Bat, Wood Thrush, Worm-eating Warbler, and Northern Goshawk), a biological survey would likely be needed in order to remove trees during the breeding season. The parcels of issue include 1, 18, 36, 39, and 40. The goal of a biological survey would be to assess the potential presence of the forest conservation concern and listed species on those parcels during the breeding season. If those species were found, then follow-on agency consultation may be required to address impact to the habitats of these species, and mitigation may be needed if impacts could not be avoided.

As this process can be time consuming, CAA's preferred approach will include tree removal during winter conditions, avoiding the growing and breeding season. As discussed, under the wetland evaluation, winter cutting is the preferred approach to minimize potential impacts, and will be employed by CAA. Based on other airport obstruction removal projects, direct impact to these species may be avoided via use of seasonal restrictions (e.g., no tree cutting from May through August when these species are known to breed in New England). As such, significant impacts to critical species is not anticipated. This conclusion will be reviewed by USFWS and CT DEEP to determine if biological surveys and potential mitigation are necessary.

5.8 FLOODPLAINS

The Federal Emergency Management Agency (FEMA) publishes Flood Insurance Rate Maps (FIRMs) that depict 100-year and 500-year floodplains in many areas throughout the country. A 100-year floodplain is an area that has a 1% chance of being flooded in any given year (Zone A). A 500-year floodplain is an area that has a 0.2% chance of being flooded in a given year (Zone B).

According to the applicable FIRM, (Community Panel 090119 0001D, Revised November 6, 1998), Windham Airport as well as all affected parcels are located in Zone X, which represents areas determined to be outside the 500 year floodplain. As there are no tree removal areas identified within the 100 year or 500 year floodplain, no anticipated impacts to the floodplain as a result of this project.

5.9 HAZARDOUS MATERIALS

The scope of this task consisted of a database review of the relevant State and Federal environmental regulatory agency records and a visual field inspection for potential hazardous materials located within the tree clearing areas. Tree clearing activities do not create hazardous materials concerns in and of themselves; however it is important to identify any potential hazardous materials which may be encountered during the tree clearing activities that would require specialized management. A more detailed Environmental Site Assessment would be needed should hazardous materials be observed and/or encountered.

The results of the data reviews and site inspection are summarized in the following sections.

5.9.1 Database Review

The database review consisted of a search for records in the applicable State and Federal environmental regulatory agency records for each property located in the tree clearing areas. Special attention was given to hazardous materials spills and dumping, as these are the most likely to impact tree clearing activities.

None of the properties where tree removal activities are proposed were listed by any of the regulatory agency databases reviewed for this task.

5.9.2 Site Reconnaissance

The field inspection was conducted on July 29, 2015 and consisted of a detailed visual inspection of the areas of concern. During the field inspection, CHA personnel were accompanied by Mr. Kurt Sendlein of the CAA. Information pertaining to the history and past uses of the tree removal areas is used in this report.

5.9.3 On-site Tree Clearing Areas

Tree clearing areas on the Windham Airport property are located along the west side and north end of Runways 18-36. The small area of airport property north of Runways 18-36 is slated for selective removal of trees. The west side of the airport property is slated for the removal of trees. No hazardous materials were observed within these area on airport property.

5.9.4 Off-site Tree Clearing Areas

The most extensive tree clearing area is located north and west of the airport along the Willimantic Reservoir. This area is slated for clearing and selective tree clearing operations. This area was inspected for hazardous materials to the extent feasible, with the hilly terrain and dense undergrowth hindering the inspection. A former

sand pit was noted to the west of the airport. This area is bordered by the reservoir and a housing development, which limits access. No hazardous materials were observed in this area during the visual survey.

Two small areas located south of the airport are designated for selective tree removal. A small amount of construction and demolition debris was observed on parcels 45 and 46 within this area. This debris is not expected to hinder tree removal activities. No hazardous materials were observed in these areas during the visual survey. Several areas designated for selective tree removal activities are located to the east of the airport. No hazardous materials were observed on any of the properties located in these areas

Conclusion: No potential hazardous materials or concerns were identified by the regulatory database review. No hazardous materials were observed during the visual site inspection. In summary, there are no known hazardous materials in the tree removal areas at Windham Airport.

It should be noted that the database searches can only reveal reported hazardous materials concerns. Unreported spills or dumping of hazardous materials will not appear in these database searches. The visual field inspection was somewhat limited due to the large areas involved and the dense undergrowth encountered in some locations.

5.10 HISTORICAL, ARCHITECTURAL, ARCHEOLOGICAL, AND CULTURAL RESOURCES

Section 106 of the National Historic Preservation Act requires Federal agencies to review the potential effects of a proposed project on cultural resources. Through consultation, agencies identify historic properties within or adjacent to the project area and find ways to avoid, minimize or mitigate the potential effects on the identified resource while accommodating the proposed project.

Tree removal will generally include clearing without grubbing. The Proposed Action does not include impacts or removal of any buildings or structures. Access would be provided by unimproved routes without grading or paving. It is anticipated that no significant soil disturbance will occur and as a result impacts to cultural resources will be avoided.

To confirm this, correspondence describing the project including mapping of potential affected parcels was submitted to the Connecticut State Historic Preservation Office (SHPO) for review. Their review indicated that although there are archeological sites or historic resources in close proximity of affected parcels, SHPO recognizes that tree removal can be accomplished with minimal ground disturbance without clearing and grubbing (Appendix B).

5.11 LIGHT EMISSIONS AND VISUAL

5.11.1 Light Emissions

The removal of tree obstructions will not result in light emissions. All tree removal operations will take place during daylight hours therefore no impacts related to light emissions are anticipated.

5.11.2 Visual Impacts

Runway 9 Approach

Tree obstructions to be removed or selectively thinned have been identified in the following locations in the vicinity of residential properties:

Both areas of tree removal and selective thinning have been identified (parcels 1 and 11) at the end of the Runway 9. The on airport areas are located adjacent to Runway 36 both north and south of Runway 9. Tree obstructions

have been identified on off-airport locations and include a portion of the Stonegate Manor manufactured home community between Elizabeth Lane and Circle Drive and undeveloped, wooded areas on the shoreline of the Willimantic Reservoir. To mitigate any potential visual impacts a vegetative buffer will remain between the homes on parcel 11 and the airport property. There are no residences on parcel 1 and therefore no impacts will occur.

Runway 27 Approach

Residential and undeveloped properties on North Windham Road, Route 6, and Spencer Lane (Parcels 12, 13 & 14) have been identified for the selective removal of trees at the end of Runway 27. This area consists of Tractor Supply Company flanked by two undeveloped properties located south of Route 6 near its intersection with Baker Road. The selective removal of trees has also been identified east of the airport property on parcels 16, 17, 18, 36, 37, 38, and 40. These parcels are undeveloped or developed for non-residential uses and therefore will not result in visual impacts.

Runway 18 Approach

Areas of thinning and removal have been identified (parcel 1) at the end of Runway 18. There are no residences in the area of potential tree removal.

Runway 36 Approach

Obstructions to be removed at the end of Runway 36 have been identified both on and off the airport and are described in the paragraph discussing Runway 9 above (Parcel 11). Selective thinning will occur South of Runway 36 between the airport property and Route 6 and an area just south of Route 6. Parcels 43 and 46 are not in residential use and are not adjacent to residential uses, and as such no impacts have been identified.

5.12 NATURAL RESOURCES AND ENERGY SUPPLY

Energy demands associated with the proposed project is expected to be minimal as an increase in the demand for energy supplies will only occur during construction and will be limited to transportation and construction vehicles and equipment. This will not impact local or regional supplies.

5.13 NOISE

The preferred alternative includes the selective removal of obstructions (trees) within the project area. During this removal it is possible that some nearby residents will experience short-term noise resulting from the removal activities. The preferred alternative will not affect airport activity levels. As such, the project has no influence on overall aircraft generated noise.

Selective removal of trees is planned west of Runway 36 on small area of Parcel 1 adjacent to Stonegate Manor - a residential development of mobile homes. Runway 18-36 is a short crosswind runway and infrequently used. An airport noise analyses conducted for the Airport Master Plan determined the average airport noise level in the area of Stonegate Manor is below 50 decibels (measured by the average day-night noise level). This level of noise is well below federal level of impact. Thus, noise created by aircraft on the ground is anticipated to have minimal impact on residents in the adjacent development, with or without the tree removal.

Trees removal has no impact on noise from overflights. The runway will continue its function as a crosswind runway and the selective removal of trees will not result in an increase in noise emissions after the clearing is completed.

5.14 SOCIOECONOMIC ISSUES

5.14.1 Social

Social impacts can consist of a wide range of considerations as discussed below. The social and economic concerns are always specific to the proposed action, and may include impacts such as include displacement of residents, neighborhood disruption, tax base reduction, changes in school population, public services and other community concerns.

Socioeconomic impacts are typically defined as disruptions to surrounding communities, such as shifts in patterns of population movement and growth, changes in public service demands, loss of tax revenue, and changes in employment and economic activity stemming from airport development. These impacts may result from the closure of roads, increased traffic congestion, acquisition of business districts or neighborhoods, and/or by disproportionately affecting low income or minority populations.

There will be no acquisition of land, displacement of any populations or neighborhood disruption as a result of this project. Property values will not be significantly impacted by selective removal of obstructions; therefore there will be no impact on the tax base or tax revenue of any sector. With no displacement/impact to populations there will be no impact to school populations.

Obstruction removal in no way effects the delivery of existing or future public service. The only effect of the obstruction removal is to increase the safety of airport operations; decreasing the risk of aircraft incidents thereby decreasing the possibility of loss of property or human capital. This also applies to children's environmental health and safety risks which may be associated with the pollution of air, food, water, recreational waters, soil, or products that a child is likely to be exposed to. The proposed project does not have the potential for significant impacts to this or for any population category.

5.14.2 Environmental Justice

In regards to civil rights and environmental justice, the EPA defines environmental justice as the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies.

Title VI was enacted as part of the Civil Rights Act of 1964 to protect against discrimination based on race, color, and national origin in programs and activities receiving federal financial assistance². To prevent further such occurrences, Executive Order 12898 "*Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*" was authorized in 1994.

A review of the CT Department of Economic and Community Development list of distressed communities indicates that the Town of Windham meets the criteria for a distressed community for the purposes of Environmental Justice. The purposed of the project is to remove or illuminate obstructions in order to improve safety for aircraft as well as the surrounding areas. Based on the type of project under consideration, this will not result in a disproportionate impact to this population; the only impact to the surrounding neighborhood will be reduced risk of aircraft incidents. As a result there are no impacts to low income or minority populations.

5.14.3 Children's Health and Safety Risks

The proposed project will not result in environmental health risks and safety risks. The proposed project will not create or make more readily available products or substances that contact or ingestions through air, food, drinking

² Title VI, 42 U.S.C. § 2000d et seq, United States Department of Justice

water, recreational waters, or soil could harm children and therefore will not result in any significant impacts to children's health or safety.

5.15 SOLID WASTE

Trees removal activities on affected parcels will be conducted by a licensed and insured tree removal contractor. With the exception of limited vegetative matter that may be spread on site for decomposition, all materials, such as salvageable timber (lumber), firewood, and woodchips for landscaping or pellets will be recycled. These materials will be removed from the site by the contractor. If prescribed by agreement with property owners, logs and other materials may be left on site for use by the owner, in an approved means described in writing. As such, no solid waste impacts are anticipated.

The Connecticut DEEP has requested that commercially viable cut materials from State property be transported to the Portland Depot, a State designated mill. The transportation of these cut materials to a State designated mill for harvesting is an acceptable practice under FAA funded project, where a formal program has been established and transportation distances/costs are reasonable. The FAA does not have a defined maximum distance for transportation of cut logs or materials; however, at under 30 miles from the Airport, it is assumed that the distance to the Portland Depot is reasonable.

Wood chips will not be spread in areas where pitch pine or scrub oak occur as recommended by the Natural Diversity Data Base as they have the potential to smother native herbaceous growth, facilitate colonization of invasive species and impact State-listed invertebrates. Proper waste management and handling wood chips will be a part of contractor specifications.

5.16 WATER QUALITY

5.16.1 Ground Water

The CTDEEP classifies types of groundwater along with their respective designated uses. Groundwater in the vicinity of Windham Airport is designated by the CTDEEP as Class GA and GAA. Class GAA is defined as: existing or potential public supply of water suitable for drinking without treatment. Class GA is defined as ground water within the area of existing private water supply wells or an area with the potential to provide water to public or private water supply wells with the presumption that ground water in such an area is, at a minimum, suitable for drinking or other domestic uses without treatment.

According to the Connecticut Environmental Conditions Online Mapping (CTECO), the project area is not located within an aquifer protection area. Tree removal projects do not produce wastewater or effluent, and thus do not generally impact ground water.

5.16.2 Surface Water

The federal Clean Water Act (CWA) and the Connecticut General Statutes establish water quality standards for all surface waters of the state. Surface waters on the Airport property consists of several small ponds north of Runway 9-27. Two of these ponds are used for stormwater runoff from the Airport and surrounding areas. There are no streams or other surface waters on the airport. Surface waters near the Airport include the Natchaug River, Willimantic Reservoir and the Mansfield Reservoir. All three are designated Class AA surface waters. Class AA designated uses include existing or proposed drinking water supplies, habitat for fish and other aquatic life and wildlife, recreation and water supply for industry and agriculture.

There will be no increase in total impervious surface resulting from the removal of trees and therefore no significant changes in drainage patterns or flow rates are expected and as a result no permanent stormwater management systems are will be constructed.

5.17 WETLANDS

Palustrine forested (PFO) wetlands within the obstruction removal areas exhibit a variation in canopy closure of the woody overstory. In some areas, the canopy is contiguous. In other areas the PFO is interspersed with gaps. Either way, removal of the canopy layer would impact PFO wetland cover types as tree removal work would not be required in emergent (PEM) or open water (POW) areas. Scrub/Shrub (PSS) swamps may require selective cutting of a few trees but, since tree cover is not the dominant cover type in these wetlands, the loss of the tree cover would be negligible. Thus, woody overstory within PFO wetlands would change from Palustrine Forested to Palustrine Scrub/Shrub as the understory layer that is currently being shaded by the overstory would be released and exposed to more sunlight, thereby allowing it to develop fully. Existing sapling hydrophytes would eventually grow to form a woody overstory canopy over time (if periodic maintenance is not conducted). Since a tall overstory layer is produced by succession over time, the loss of overstory tree layer cannot realistically be immediately replaced through wetland enhancement or mitigation measures.

However, there are a number of reasons why impact to palustrine wetlands are not expected to be significant. They include the following:

- 1) The primary wetland functions of the wetlands would not change. The Palustrine wetlands would still provide sediment retention, bank stabilization, nutrient retention/transformation, pollution retention/ transformation, production export, groundwater recharge/discharge, and wildlife habitat, as only the tree layer would be substantially reduced.
- 2) Wildlife habitat function for certain species of conservation concern reported to occur within or proximal to the project area would potentially improve (e.g., potentially breeding Canada Warblers, and migratory or wintering Rusty Blackbirds).
- 3) Tree removal is proposed only on the fringe, not within the Atlantic White Cedar Swamp – a CTDEEP Critical Habitat (Parcel 15 and 16). Furthermore, the proposed tree removals from the northeastern perimeter of this habitat involve broad-leaved deciduous species and not Atlantic White Cedar. There will be no impact to Atlantic White Cedar Swamp habitat.
- 4) An increase in the understory of water loving shrubs would increase the diversity of nectar, pollen and soft mast-producing plants as they responded to better sunlight conditions reaching the lower vegetation strata (e.g. Highbush Blueberry, Winterberry, Northern Arrowwood, Elderberry, various dogwoods, etc.). This would increase the diversity of production export from the wetland.
- 5) Since trees will be felled in place, the crowns and boles will remain in their wetland of origin and will continue to serve as cover for wildlife.
- 6) Nutrients tied up in the tree biomass will return to the system via the natural decomposition process.
- 7) Loss of a mature tree layer is a natural ecological endpoint along a successional trajectory for many palustrine wetlands as windstorms topple shallowly rooted trees (e.g., Red Maples), flooding from

beaver ponds drown existing trees (e.g., as on Parcel No. 46), or disease causes the demise of some stands (e.g., Tobacco Ringspot Virus of Ash, Tobacco Mosaic Virus of Ash, Ash Yellows, etc.).

- 8) Tree removals avoid the grassed areas of the airport. Efforts will be made to avoid or minimize impacts to rare habitat both spatially and temporally in order to avoid or minimize impacts to nesting birds of conservation concern.

Furthermore, impact to a number of ecological functions and values would be avoided or minimized by employing best management practices (BMPs) for timber treatment implementation within wetlands. These BMPs include the installation and maintenance of erosion and sedimentation control measures, seasonal work restrictions if applicable to breeding wildlife resources of conservation concern, and by felling timber in place with no or minimal harvest. No large-scale clearing, grubbing, excavation, dredging, or filling within wetland or watercourse resources is included as part of the Proposed Action. Vehicular access to many of the designated tree removal areas is possible using the existing network of roads, trails, and driveways within the adjacent upland. The project specifications will avoid the use of timber mats by requiring non-mechanized removal techniques. Alternatively, if frozen ground is present during tree removal, traditional clearing may be possible without temporary fills or soil disturbance. As frozen ground cannot be relied upon, hand cutting (i.e. using chainsaws) is anticipated within wetland areas thus avoiding vehicular traffic. The methods of access, tree cutting, work schedule, timing, and sequencing would be finalized during the design process in coordination with ACOE and CT DEEP.

Therefore, impacts to hydric and wetland soils is not expected to be significant as large areas of bare soil will not be generated or exposed to the erosive forces of wind and water. Implementation, inspection, and maintenance of erosion and sedimentation control BMPs would further reduce the risk of soil loss from the occasional areas where limited amounts of soil disturbance might occur in adjacent upland areas from construction vehicle movements. These measures would prevent sedimentation of wetlands and waterbodies.

The removal of tree cover from Riverine systems typically raises concerns regarding bank stabilization and related erosion and sedimentation issues. Thermal pollution of the system is also generally a concern. When overhanging branches that shade the stream's waters are removed, sunlight can warm the water below. Warmer waters hold less dissolved oxygen, and many of the coldwater fisheries within the system (e.g., trout) are typically sensitive to low oxygen levels. Since tree root masses are not being removed from the system but will be left in place, bank stabilization is not expected to be compromised by tree cutting. Many of the cut stumps will remain viable and re-sprout multiple stems (termed coppicing) allowing the tree to regenerate. Additionally, understory trees, shrubs and herbaceous ground cover along the stream banks will proliferate since they will be released from the low light conditions in which they had formerly been growing. Impact to riverine riverbank occurs in a very limited extent along the Natchaug River and along a reach of the river just upstream of its confluence with the Fenton River. Here the flow velocity is reduced and the river gradient becomes shallower as the system transitions from a predominantly cold water fishery to more of a warm-water lacustrine fishery. Along much of the Natchaug River reach within the obstructions removal area, the banks of the river are quite steep. An effort will be made to maintain a 100 foot wide undisturbed vegetated buffer adjacent to the Natchaug River in order to maintain water temperatures, minimize sedimentation into the river, and minimize impacts to state-listed damselflies and freshwater mussels that may reside within the river reach.

The removal of trees from the edge of the Willimantic Reservoir on Parcel 1 would result in the formation of a shrub swamp fringe or an interspersed vegetation around the edge of the reservoir. As such, efforts will be made to retain trees along the river edge, except where individual trees are determined to be Threshold Surface obstructions. Similar to the Natchaug River riverbank, the banks of the Willimantic Reservoir are steep. Therefore,

some of the trees growing at the toe of slope along the water's edge may be short enough so that they may not be rendered an obstruction and therefore may be retained along the bank of the reservoir.

The Connecticut DEEP reported the presence of a Pitch Pine / "Scrub" Oak Sandplain Community on the Windham Airport property. This rare natural community of conservation concern does not occur within the impact area, however some individual specimens of plant species indicative of such a community may occur sporadically within or adjacent to the approach surface areas associated with the runways. As design progresses, the mentioned host plants will be field-located by qualified personnel, their locations recorded via GPS, and depicted on plan sheets in order to provide additional detail to the Natural Diversity Data Base. The engineering and design team can then work with the NDDDB personnel to avoid or minimize impacts to populations of the flora of conservation concern.

In no event will wood chips generated from removal activities be spread on in areas where the Pitch Pine/"Scrub" Oaks Sandplain Community occurs. The prevention of wood chip deposition on site is a standard practice for contractor specifications, and proper waste management and handling measures for the wood chips will be incorporated in the project plans. Proper disposal may also be a condition of permit.

Overall, the estimated area of total tree cutting impact proposed for Palustrine Forested (PFO) wetland areas is approximately 4.9 acres. The estimated area of tree cutting impact along the banks of the Natchaug River and Willimantic Reservoir is approximately 930 linear feet within Parcels 39 and 40. Note that these are estimated areas as an official wetland delineation has not been conducted.

Conclusion: During the design phase of the project, coordination with the United States Army Corps of Engineers (ACOE) and the CT DEEP will be conducted, to provide the plan details and process to avoid wetland impacts. Based on similar completed efforts in New England, it is anticipated that a Section 401 Water Quality Certification and Section 404 Permit will not be required, based on winter removal and the planned means and methods described above. Application to the local inland wetland and conservation commission is not required for the proposed activities.

Coordination with the CT DEEP Inland Water Resources Division (IWRD) will be completed to determine any requirements to satisfy the Connecticut Inland Wetland Protection Act, and Tidal Wetlands Act. Although there will be no actual filling of wetlands the conversion of existing forested wetlands to scrub/shrub and emergent systems will alter the wetland systems and it is anticipated that state wetland permits will likely be needed. These changes will need to be documented and considered by CT DEEP, along with BMPs and mitigation measures. Presently the CAA is exempt from having to file Flood Management Certifications (FMC) with the CT DEEP Inland Water Resources Division (IWRD).

5.18 WILD AND SCENIC RIVERS

According to the National Park Service website, there are two rivers in Connecticut that are designated as Wild and Scenic Rivers: the Eight Mile River and Farmington River West Branch. These rivers are not in the vicinity of Windham Airport; therefore there will be no impact to any designated Wild and Scenic Rivers.

5.19 SUMMARY OF CONSEQUENCES

Table 9 provides a summary of the anticipated impacts and key issues associated with the proposed project. The project is not anticipated to result in any permanent impacts or to environmental concerns.

TABLE 9 – SUMMARY OF POTENTIAL IMPACTS AND KEY ISSUES

Impact Category	Potential Impact or Key Issue
Air Quality	The project is not anticipated to worsen the existing marginal non-attainment under NAAQS related to 8-hour ozone.
Compatible Land Use	The project will not cause a change in land use and is consistent with local zoning. No compatible land use impacts are anticipated.
Construction Impacts	Construction activity is restricted to a small project areas and will be completed in short timeframes. Tree removal will be conducted during daytime hours and employ proper erosion controls. As such, significant construction impacts (i.e., noise, air quality, erosion, traffic, etc.) are not anticipated.
Department of Transportation Act: Section 4(f)	The selective removal of trees within Mansfield Hollow State Park will not limit access or use of this area. As such, no impacts to 4(f) lands are expected.
Farmland	The farmland soils identified in the project area have not been used as farmland in recent history. The project will not impact farming or soils classified as prime farmland.
Fish, Wildlife, and Plants	Conducting removals during winter conditions will prevent significant impacts to critical species.
Hazardous Materials	No potential hazardous materials or concerns were identified by the regulatory database review and no hazardous materials were observed during the visual site inspection. As of July 2015 there were no known hazardous materials in the areas of concern at Windham Airport.
Historical, Architectural, Archeological, and Cultural Resources	SHPO has determined that the removal of trees will not have an impact on cultural or historic resources.
Light Emissions & Visual Effects	The proposed action will not create significant light emissions or long term visual impacts.
Natural Resources & Energy Supply	The proposed action will required only a limited amount of natural resources and energy during construction activities. No additional resources are needed following implementation.
Socioeconomic Impacts	The project will not result in any changes to land uses, the delivery of public services or the availability of jobs.
Water Quality	No water quality impacts are anticipated.
Wetlands	Based on the Means and Methods of removal, the ACOE has routinely determined that no wetland impacts are created by this type of project, and federal permits are not needed. Coordination with the CT DEEP Inland Wetlands Resources Division (IWRD) will occur during the design process to satisfy the Connecticut Inland Wetland Protection Act and if any permits are necessary. It is anticipated that no mitigation will be necessary or if required will be minor.
Other Categories	The analysis identified that no coastal resources, floodplains, solid waste, or wild or scenic rivers located within the tree removal areas.

6.0 REPORT PREPARERS

The following individuals prepared this EA on behalf of the CAA.

Federal Aviation Administration

Richard Doucette, Community Planner

Connecticut Airport Authority

Molly Parsons, Airport Planner

Colin Goegel, Supervising Engineer

Clough Harbor & Associates LLP (CHA)

Jeremy Martelle, ACE, ASC, Project Manager

Paul McDonnell, AICP, Principal Planner

Jean Loewenstein, AICP, Senior Planner

Scott Rosecrans, Senior Scientist

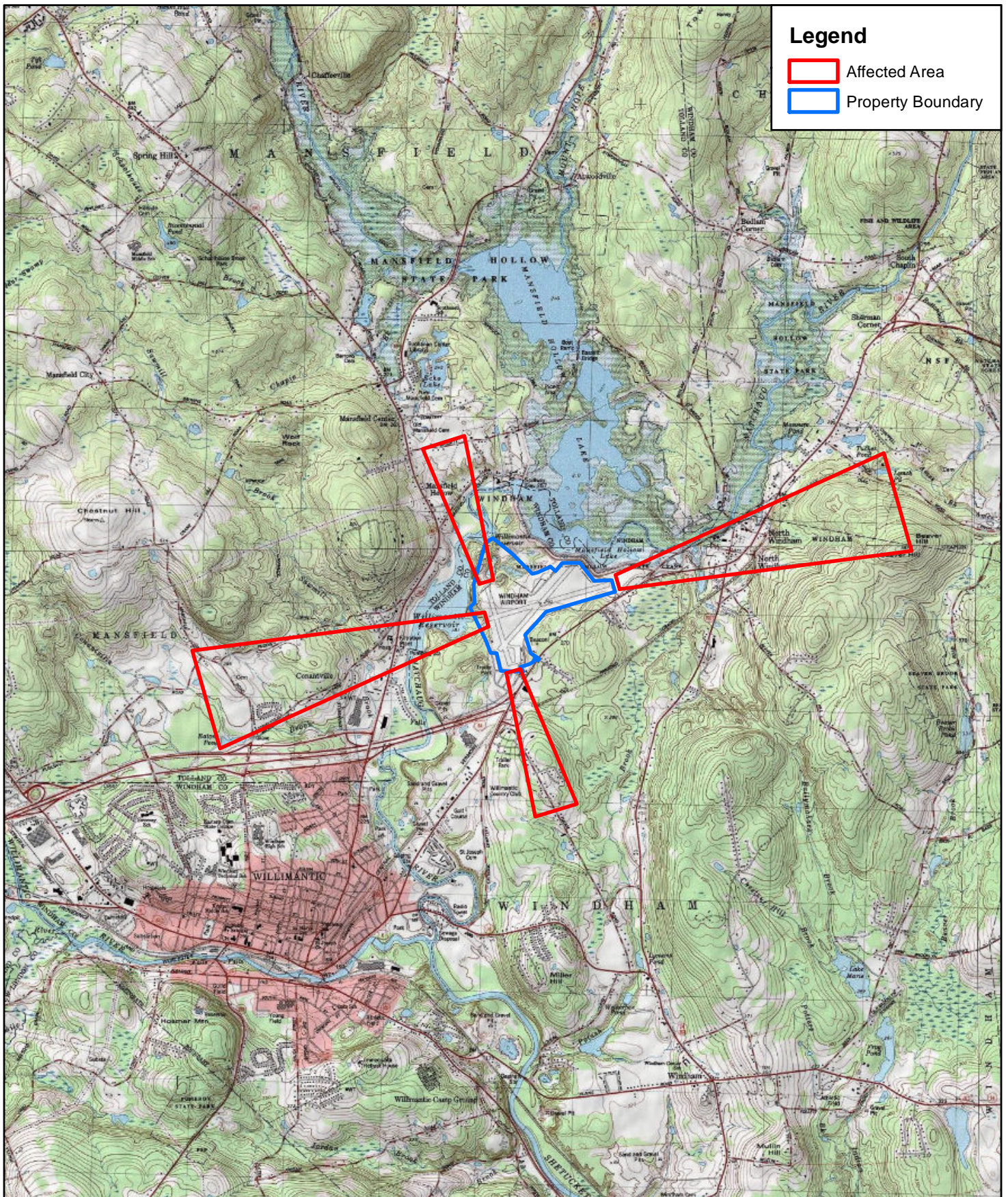
Fitzgerald and Halliday, Inc.



Paul Stanton, Senior Project Manager

Anthony Zumba, Environmental Specialist

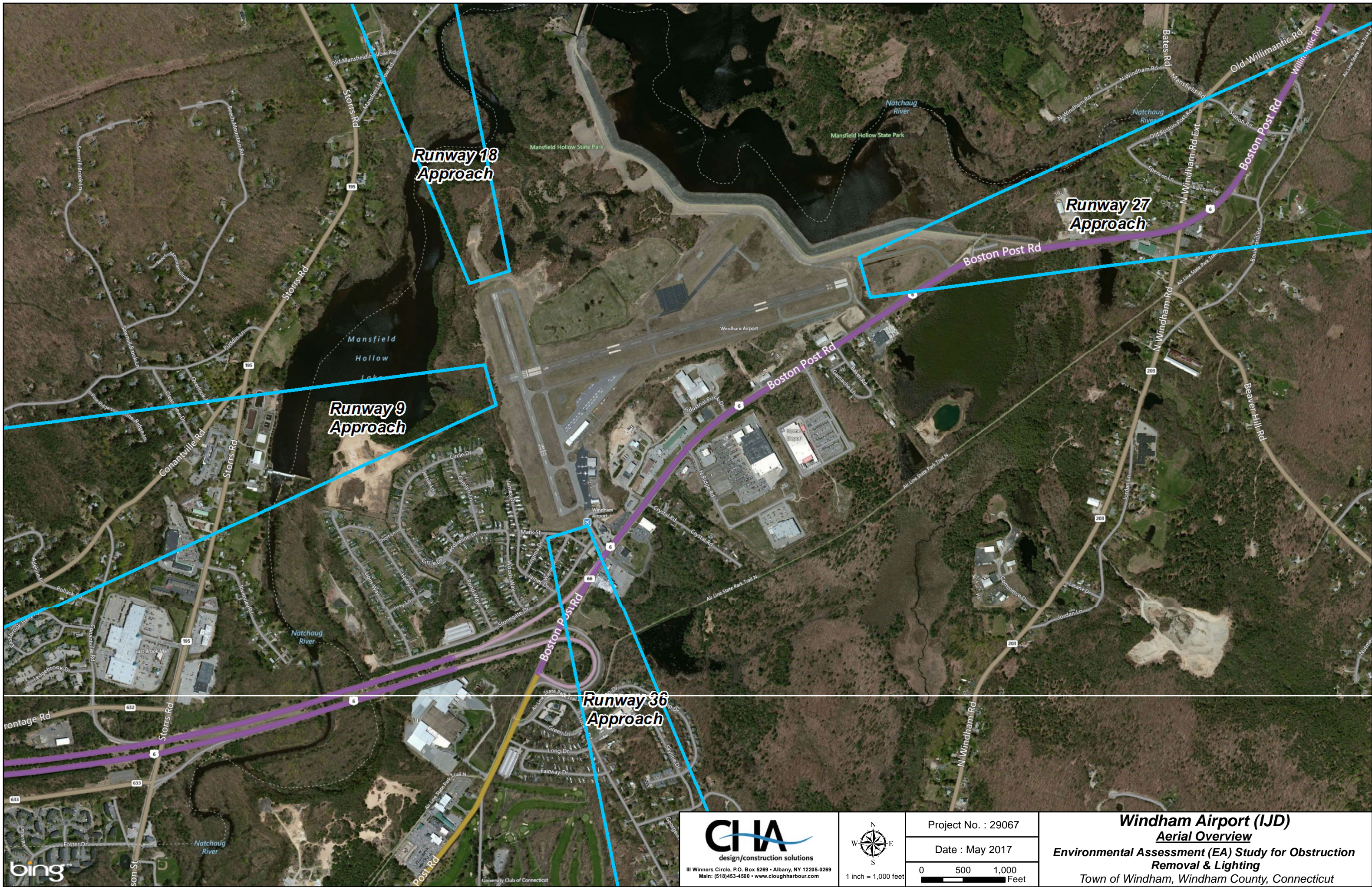
APPENDIX A

AIRPORT OBSTRUCTION STUDY MAPS



			CAA Environmental Assessment (EA) for Obstruction Removal Project Study Area
	Scale 1" = 4500'	Project No. 29067	

Windham Airport (IJD)
North Windham, Windham County, Connecticut
Willimantic & Spring Hill USGS Quadrangles

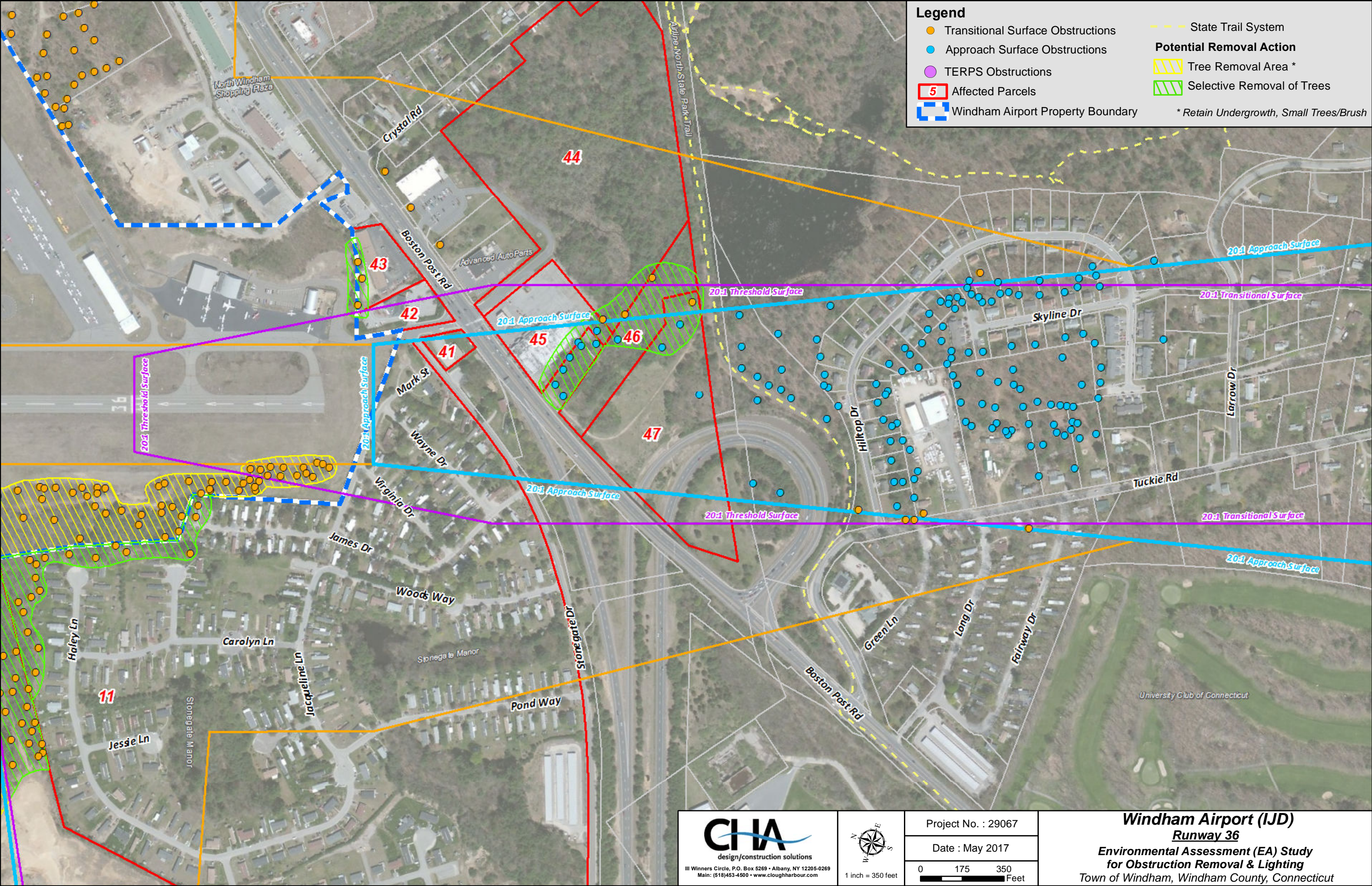


CHIA
design/construction solutions
III Winners Circle, P.O. Box 5269 • Albany, NY 12205-0269
Main: (518)453-4500 • www.cloughharbour.com

North Arrow
1 inch = 1,000 feet

Project No. : 29067
Date : May 2017
0 500 1,000 Feet


Windham Airport (IJD)
Aerial Overview
Environmental Assessment (EA) Study for Obstruction
Removal & Lighting
Town of Windham, Windham County, Connecticut




Legend

- Transitional Surface Obstructions
- Approach Surface Obstructions
- TERPS Obstructions
- Affected Parcels
- Windham Airport Property Boundary

- State Trail System
- Potential Removal Action**
- Tree Removal Area *
- Selective Removal of Trees
- * Retain Undergrowth, Small Trees/Brush



design/construction solutions
111 Winners Circle, P.O. Box 5269 • Albany, NY 12205-0269
Main: (518)453-4500 • www.cloughharbour.com



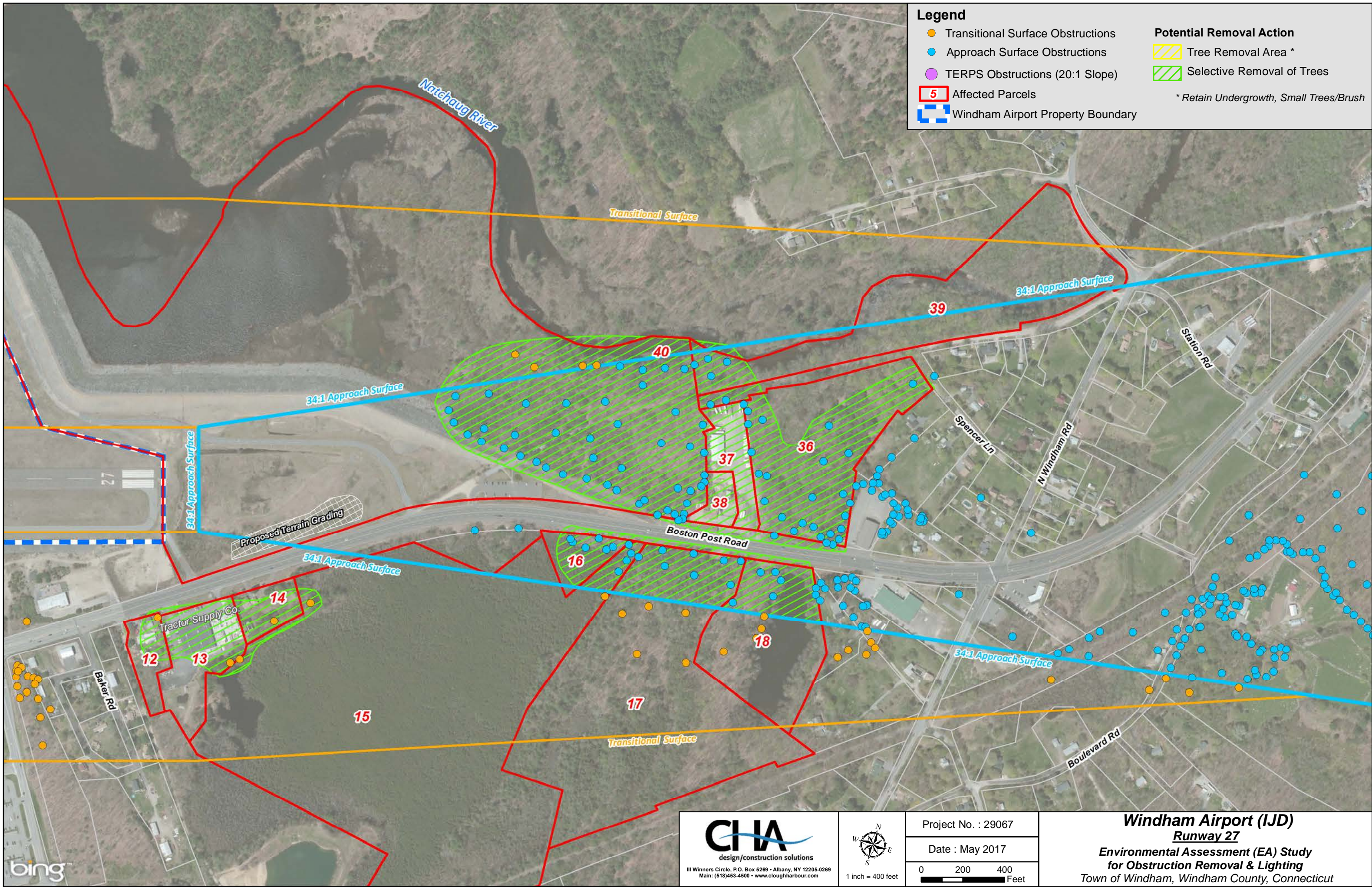
1 inch = 350 feet

Project No. : 29067

Date : May 2017

0 175 350 Feet

Windham Airport (IJD)
Runway 36
Environmental Assessment (EA) Study
for Obstruction Removal & Lighting
Town of Windham, Windham County, Connecticut



Legend

- Transitional Surface Obstructions
- Approach Surface Obstructions
- TERPS Obstructions (20:1 Slope)
- Affected Parcels
- Windham Airport Property Boundary

Potential Removal Action

- Tree Removal Area *
- Selective Removal of Trees

* Retain Undergrowth, Small Trees/Brush



CHIA
design/construction solutions
III Winners Circle, P.O. Box 5269 • Albany, NY 12205-0269
Main: (518)453-4500 • www.cloughharbour.com

1 inch = 400 feet

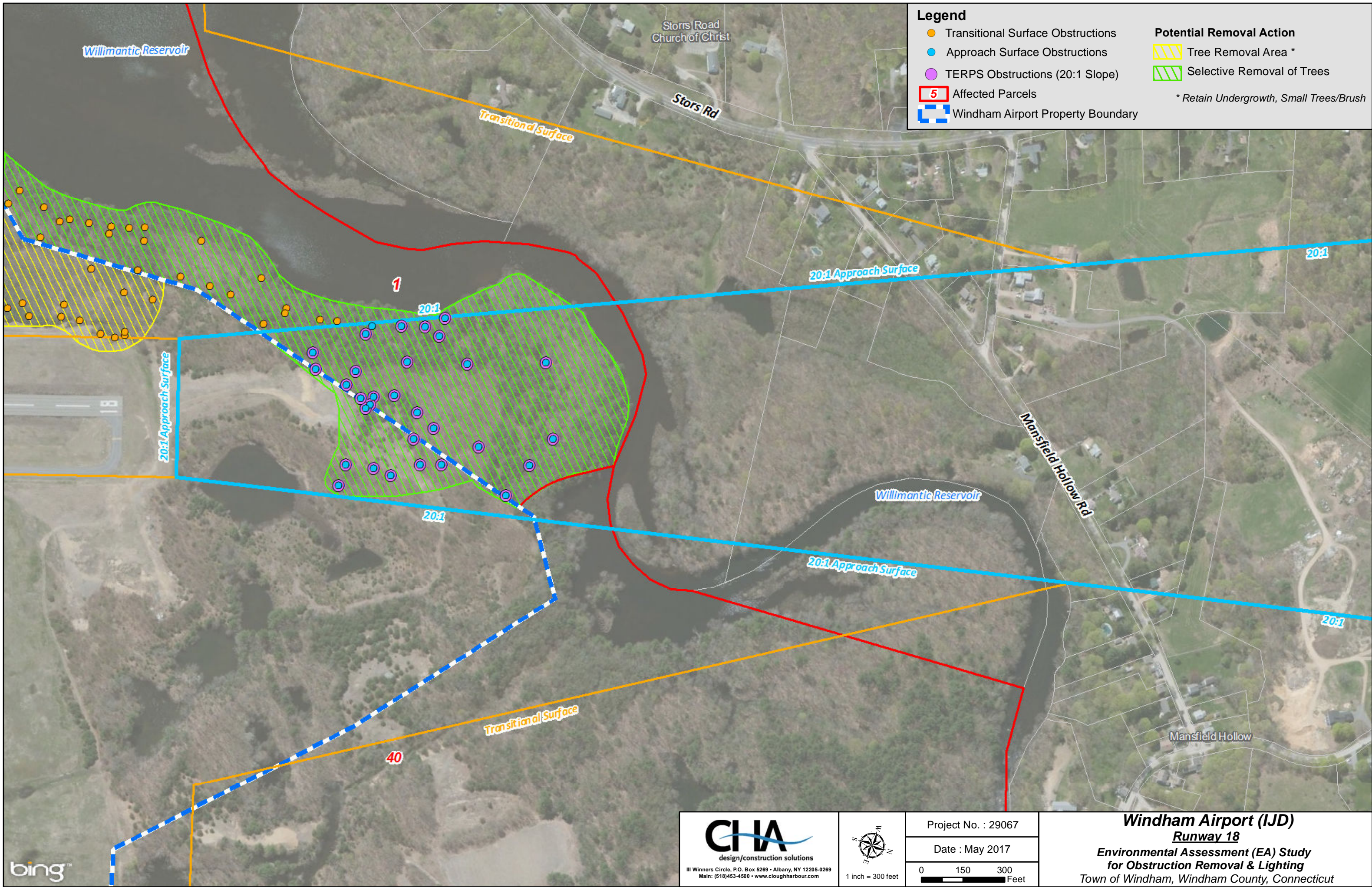
Project No. : 29067

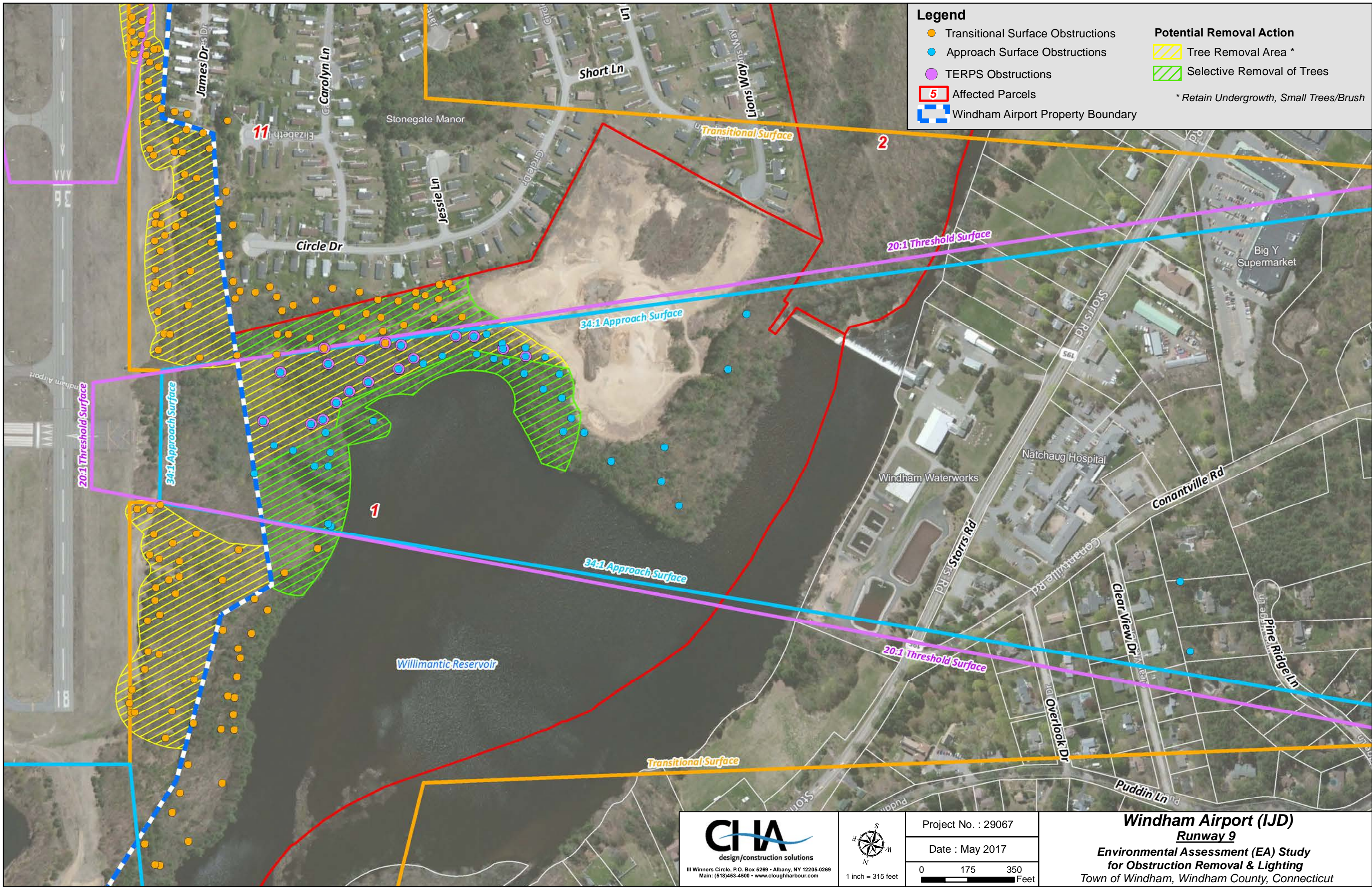
Date : May 2017

0200400

Feet

Windham Airport (IJD)
Runway 27
Environmental Assessment (EA) Study
for Obstruction Removal & Lighting
Town of Windham, Windham County, Connecticut







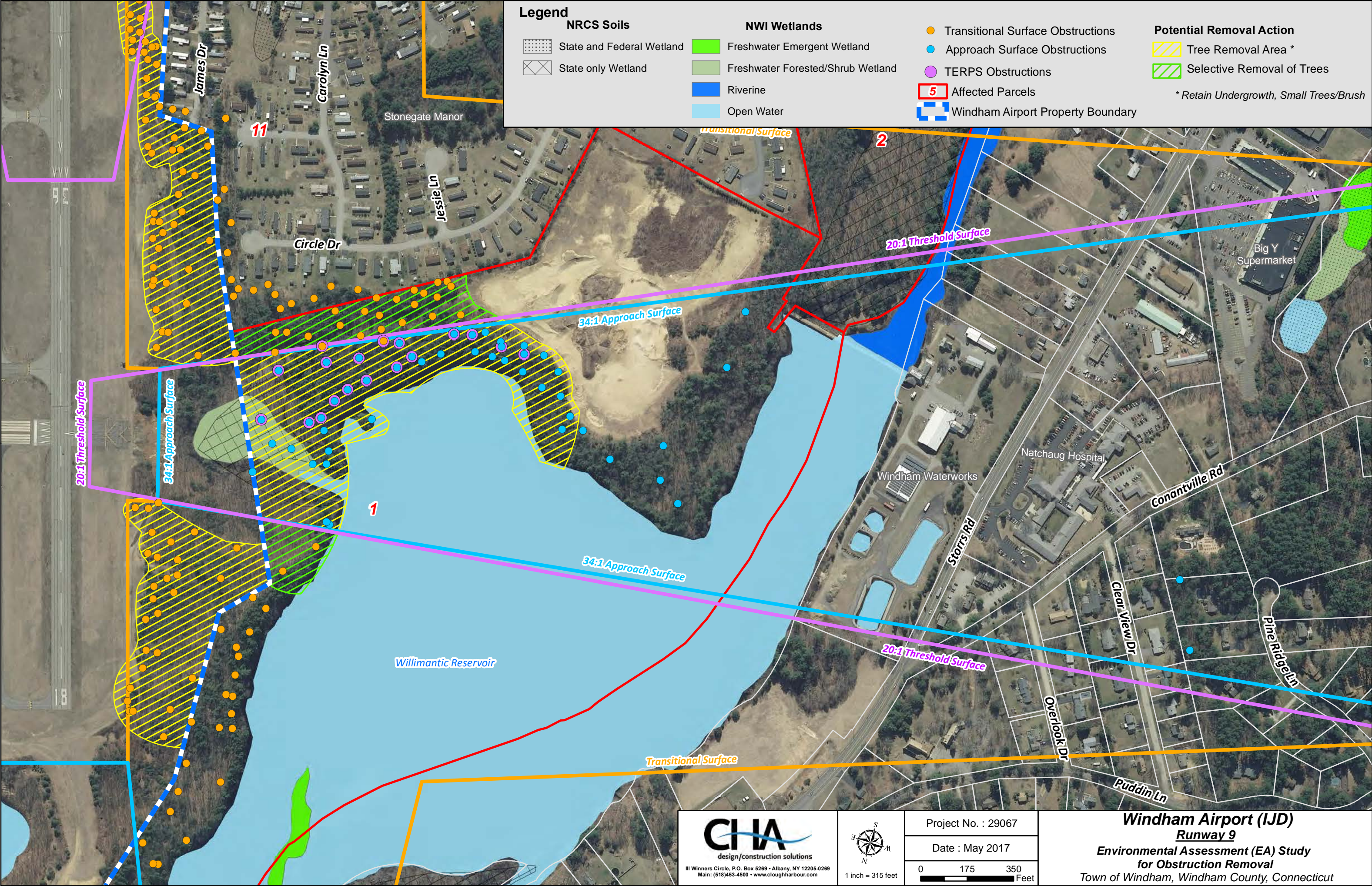
Legend

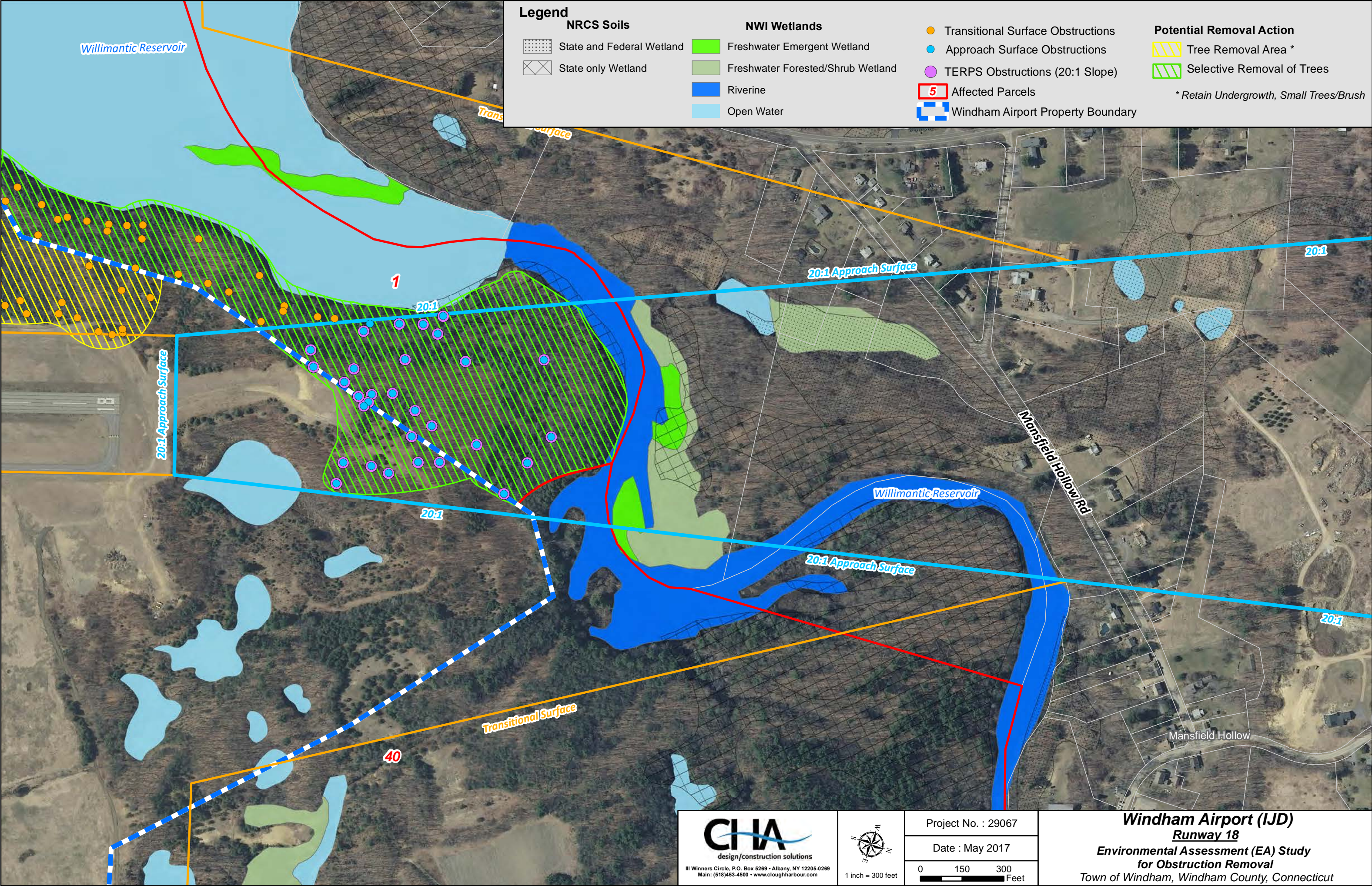
- Transitional Surface Obstructions
- Approach Surface Obstructions
- TERPS Obstructions
- 5** Affected Parcels
- Windham Airport Property Boundary

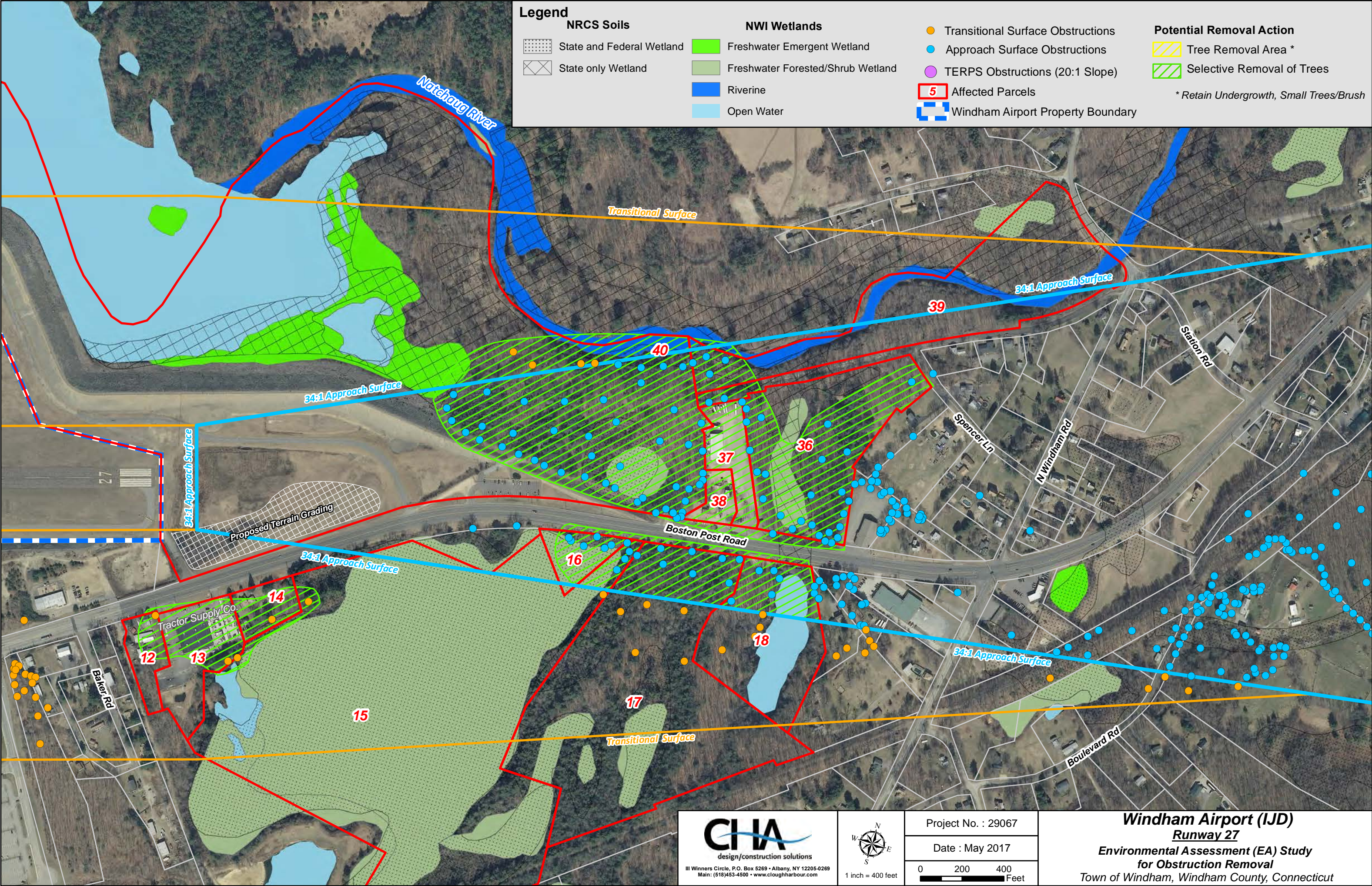
Potential Removal Action

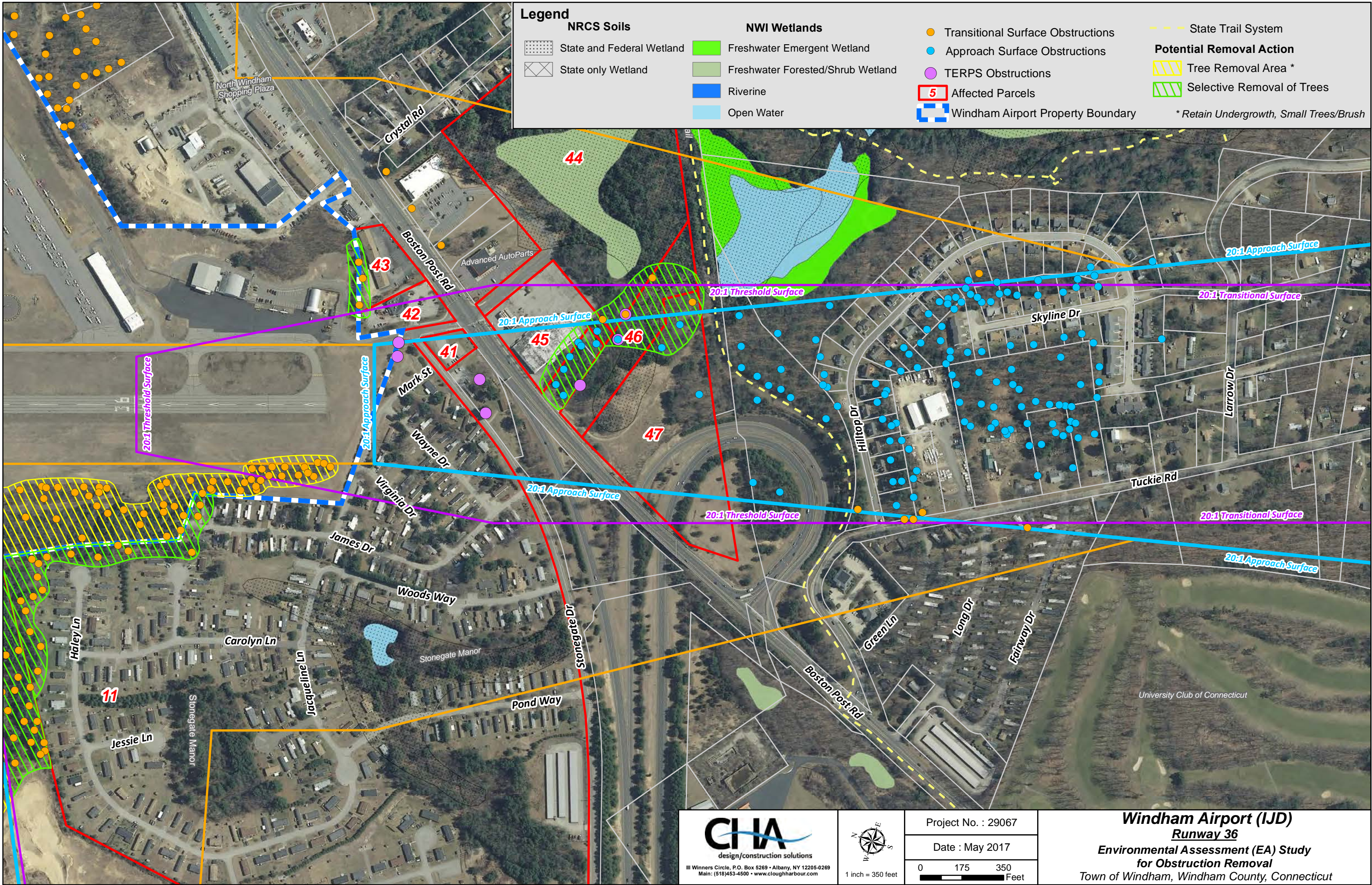
- Tree Removal Area *
- Selective Removal of Trees
- * Retain Undergrowth, Small Trees/Brush

 design/construction solutions III Winners Circle, P.O. Box 5269 • Albany, NY 12205-0269 Main: (518)453-4500 • www.cloughharbour.com	 1 inch = 315 feet	Project No. : 29067	Windham Airport (IJD) Runway 9 Environmental Assessment (EA) Study for Obstruction Removal & Lighting Town of Windham, Windham County, Connecticut
		Date : May 2017	
		0 175 350 Feet	









APPENDIX B CORRESPONDENCE

EMAIL:

From: CT Office of Policy and Management

To: CAA

Date: 11/11/17 – 12/19/17

Subject: CEPA applicability to CAA airports and projects

From: "Bye, Gareth" <Gareth.Bye@ct.gov>

Date: 11/9/17 5:02 PM (GMT-05:00)

To: Paul Pernerewski <ppernerewski@ctairports.org>

Cc: "Morley, Dan D." <Daniel.Morley@ct.gov>, "Wittchen, Bruce" <Bruce.Wittchen@ct.gov>, "Pafford, Matthew" <Matthew.Pafford@ct.gov>, "Sullivan, Michael" <Michael.J.Sullivan@ct.gov>

Subject: Record of Decision pending for Bradley, Waterbury-Oxford, and Danielson GA Airport Projects

November 11, 2017

Paul,

This will serve to close out the underlying issue of whether OPM has a role in reviewing the Record of Decision (ROD) that the Airport Authority (CAA) prepared for the joint Environmental Assessment (EA) and Environmental Impact Evaluation (EIE), regarding tree work proposed for off-airport tree obstruction at Bradley, Waterbury-Oxford, and Danielson.

Section 22a-1c of the Connecticut General Statutes (CGS) states only "actions ... proposed to be undertaken by state departments, institutions or agencies, or funded in whole or in part by the state" are subject to the CT Environmental Policy Act (CEPA).

Subsection (a) of Connecticut General Statutes § 15-120bb states that "the [CAA] shall not be construed to be a department, institution or agency of the state."

OPM has determined that there is no "state action" for the captioned project because the proposed actions are not being sought by a state department, institution or agency funded in whole or part by the state, as required by Section 22a-1c of the Connecticut General Statutes.

It is clear in statute CAA has the duty, power and authority to manage, operate and develop Bradley, the general aviation airports and the other airports defined in Chapter 267b of the Connecticut General Statutes. See CGS §§ 15-120aa and 15-120bb. Any remaining bond money that may have been allocated to the DOT's Bureau of Aviation could no longer be used by DOT because such duties moved to CAA. Consistent with CAAs authority under CGS § 15-120cc(28)(32), such bond monies, in fact, have been transferred by DOT to CAA at its request for CAA's use. Further, since DOT has no grant in place with CAA concerning such projects and there are no DOT "strings" attached to such transfers, DOT's role is simply ministerial. Stated alternatively, DOT has no involvement in the direct management, funding or authority chain associated with the applicable projects.

Therefore, the environmental review for the projects is not under CEPA.

Please feel free to contact this agency should you or your staff have any other questions.

Regards,

Gareth D. Bye
Director of Legal Affairs
Office of The Secretary
State of Connecticut
Office of Policy and Management
450 Capitol Avenue
Hartford, CT 06106-1379
860-418-6433 (direct)
860-418-6487 (fax)
gareth.bye@ct.gov (e-mail)

From: Bye, Gareth [<mailto:Gareth.Bye@ct.gov>]

Sent: Tuesday, December 19, 2017 5:04 PM

To: Paul Pernerewski <ppernerewski@ctairports.org>

Cc: Kitowicz, Steven <Steven.Kitowicz@ct.gov>; Morley, Dan D. <Daniel.Morley@ct.gov>; Sullivan, Michael <Michael.J.Sullivan@ct.gov>; Tassinari, Brian <Brian.Tassinari@ct.gov>

Subject: Record of Decision pending for Bradley, Waterbury-Oxford, and Danielson GA Airport Projects

Paul,

I have run your question past OPM's staff to double check OPM's response.

Some staff are absent from the office until after the Holiday, but staff that are present believe the answer to your question is a simple **yes, that the same analysis set forth in my email stamped Thursday, November 09, 2017 5:02 PM below applies to the referenced airports.**

Regards,

Gareth D. Bye
Director of Legal Affairs
Office of The Secretary
State of Connecticut
Office of Policy and Management
450 Capitol Avenue
Hartford, CT 06106-1379
860-418-6433 (direct)
860-418-6487 (fax)
gareth.bye@ct.gov (e-mail)

From: Paul Pernerewski [<mailto:ppernerewski@ctairports.org>]

Sent: Tuesday, December 19, 2017 11:49 AM

To: Bye, Gareth <Gareth.Bye@ct.gov>

Subject: RE: Record of Decision pending for Bradley, Waterbury-Oxford, and Danielson GA Airport Projects

Gareth,

Can you confirm that the same analysis would apply to the other three general aviation airports which the CAA owns and operates, **Hartford-Brainard and Groton-New London and Windham?**

Thanks,
Paul

Paul K. Pernerewski, Jr.
General Counsel
Connecticut Airport Authority
Bradley International Airport
Administrative Office
Terminal A, 3rd Floor
Windsor Locks CT 06096
Ph: 860-292-2026
Fax: 860-627-3594
e-mail: ppernerewski@ctairports.org

Notice of Scoping for Connecticut Airport Authority (CAA) Off-Airport Obstruction Removal and Lighting Project

Municipalities where proposed project might be located: Windsor Locks (Bradley International Airport), Willimantic (Windham Airport), Groton (Groton-New London Airport), Oxford (Waterbury-Oxford Airport), Hartford (Hartford-Brainard Airport) and Killingly (Danielson Airport).

Address of Possible Project Location: Various (see above)

Project Description: The proposed undertaking involves preparation of National Environmental Policy Act (NEPA) and Connecticut Environmental Policy Act (CEPA) documentation as required to evaluate the potential impacts associated with tree obstruction removal and obstruction lighting at Bradley International Airport and the five state-owned general aviation airports as identified and listed above. The evaluation will address obstruction removals and lighting associated with Federal Aviation Regulations (FAR) Part 77, *Safe, Efficient Use, and the Preservation of Navigable Airspace* and published Terminal Instrument Procedures (TERPS), which define and regulate the airspace beyond the ends of runways through the establishment of imaginary surfaces. Objects that penetrate these surfaces are classified as airspace obstructions, and should be removed to safely accommodate approaching and departing aircraft.

The project sponsoring agency, the Connecticut Aviation Authority (CAA), and Federal Aviation Administration (FAA) have identified that trees penetrate the airspace at Bradley International Airport and airspace at the five state-owned general aviation airports, including locations beyond defined airport property boundaries. Per FAA practice, review of off-airport obstruction removal should be evaluated and documented per federal (NEPA) and state (CEPA) environmental guidelines and requirements. This project also includes the identification of each affected property owner and associated parcels (both public and private) with necessary obstruction removals, obstruction lighting, and anticipated project access routes.

Project Maps: Project maps for each airport can be found at the following locations:

[Bradley International Airport Obstruction Removal and Lighting Documents](#)
[Danielson Airport Obstruction Removal and Lighting Documents](#)
[Groton-New London Airport Obstruction Removal and Lighting Documents](#)
[Hartford-Brainard Airport Obstruction Removal and Lighting Documents](#)
[Waterbury-Oxford Airport Obstruction Removal and Lighting Documents](#)
[Windham Airport Obstruction Removal and Lighting Documents](#)

Written comments from the public are welcome and will be accepted until the close of business on: **Friday, July 17, 2015.**

Any person can ask the sponsoring agency (CAA) to hold a Public Scoping Meeting by sending such a request to the address below. If a meeting is requested by 25 or more individuals, or by an association that represents 25 or more members, the sponsoring agency shall schedule a Public Scoping Meeting. Such requests must be made by **Friday, June 26, 2015.**

Written comments and/or requests for a Public Scoping Meeting should be sent to:

Name: Mr. Robert J. Bruno, Director of Planning, Engineering & Environmental
Agency: Connecticut Airport Authority
Address: 334 Ella Grasso Turnpike, Suite 160
Windsor Locks, CT 06096
Phone: (860) 254-5516

E-Mail: rbruno@ctairports.org

If you have questions about the public meeting, or other questions about the scoping for this project, contact:

Name: Mr. Robert J. Bruno, Director of Planning, Engineering & Environmental

Agency: Connecticut Airport Authority

Address: 334 Ella Grasso Turnpike, Suite 160

Windsor Locks, CT 06096

Phone: (860) 254-5516

E-Mail: rbruno@ctairports.org

The agency expects to release an environmental document for this project, for public review and comment, in October 2015.



STATE OF CONNECTICUT

DEPARTMENT OF ENERGY & ENVIRONMENTAL PROTECTION

OFFICE OF ENVIRONMENTAL REVIEW

79 ELM STREET, HARTFORD, CT 06106-5127

To: Robert J. Bruno – Director of Planning, Engineering & Environment
Connecticut Airport Authority, 334 Ella Grasso Turnpike, Windsor Locks

From: David J. Fox - Senior Environmental Analyst **Telephone:** 860-424-4111

Date: July 17, 2015 **E-Mail:** david.fox@ct.gov

Subject: Obstruction Removal & Lighting Project

The Department of Energy & Environmental Protection (DEEP) has reviewed the Notice of Scoping for the proposed tree obstruction removal and obstruction lighting beyond airport property in areas surrounding Bradley International Airport and five stated-owned general aviation airports operated by the Connecticut Airport Authority (CAA). The following comments are submitted for your consideration.

In general, the document should:

- Identify the location and height of encroachments into the various applicable airspaces,
- Identify the extent of clearing required,
- Develop plans that, in order, avoid, minimize and mitigate potential impacts,
- Identify alternative site access/egress and staging areas needed to conduct proposed work,
- Evaluate cumulative impacts if project phasing is proposed, and
- Identify opportunities for habitat and outdoor recreational enhancements to mitigate unavoidable impacts.

At four of the airports, the affected areas identified encroach into several DEEP properties that could be impacted if obstruction clearing is proposed at these locations. These include the properties in the table below.

Groton - New London Airport	Bluff Point State Park Bluff Point Coastal Reserve Bluff Point Natural Area Preserve
Windham Airport	Mansfield Hollow Wildlife Management Area Airline State Park Trail Natchaug State Forest Beaver Brook State Park Scenic Reserve
Waterbury - Oxford Airport	Larkin State Park Trail
Brainard Airport	Connecticut River Wildlife Management Area (or Keeney Cove WMA)

The document should identify both direct and indirect (visual or aesthetic) impacts to DEEP property and evaluate the consistency of proposed vegetative clearing or beacon installation with any applicable State policies that apply to the various management designations (e.g., State Park, Coastal Reserve, Natural Area Preserve, etc.). The Department is particularly concerned about potential impacts to Bluff Point.

The Bluff Point peninsula is often considered the last significant undeveloped area on the Connecticut coastline. In 1975, the Connecticut Legislature designated a portion of Bluff Point as a “Coastal Reserve” in recognition of its ecological importance and to preserve its ecological integrity. One of the largest undeveloped coastal areas in the state, this mostly forested 700-acre site contains a variety of habitats supporting state threatened and endangered species. Special Act 76-27 established land use controls at the coastal reserve: “Living and nonliving resources contained within the reserve shall not be disturbed or removed for other than scientific or management purposes and only upon the approval of the commissioner of environmental protection.”

The southeast section of Bluff Point is a designated Connecticut Natural Area Preserve. Governor Rowland designated these 117 acres to maintain the preserve in as natural and wild a state as is consistent with the preservation and enhancement of protected resources and educational, biological, geological, paleontological and scenic purposes. The designation is due in part to a unique coastal forest on a concave slope, known as a ‘cove forest,’ which supports trees that are nearly 100-years old.

Pursuant to section 23-5e of the Connecticut General Statutes (CGS), “An area designated as a natural area preserve is declared to be put to its highest, best and most important use for public benefit and no interest therein owned by the state shall be alienated or put to any use other than as a natural area preserve, except upon a finding by the commissioner in consultation with the natural area preserves committee that (1) such alienation or other use serves a public necessity and that no prudent alternative exists or (2) the features of the land found worthy of preservation have been destroyed or irretrievably damaged so that the public purpose in preserving such land has been frustrated, and after the approval of such proposed alienation or other use by the Governor.”

The document should explain any procedures for obtaining variances from FAA regulations or relaxation of requirements regarding penetration by trees or other obstructions into the airspace formed by imaginary surfaces. For example, a Draft Environmental Assessment for removing off-airport airspace obstructions at T.F. Green Airport proposed, as the preferred alternative, a partial clear plan for “tree removal only in those areas where trees obstruct priority operational surfaces in order to minimize impacts to the community and environment and to reduce the number of easements to achieve project goals. The priority surfaces were established through a review process conducted by RIAC and FAA and ultimately approved by FAA in the RIAC Airspace Determination.” Alternative analysis should evaluate the use of variances or reduced standards in order to avoid adverse impacts at particularly sensitive locations, such as DEEP property.

In the case of Bluff Point, the relative benefit of tree clearing for the lesser used crosswind runway should be weighed against the potential impacts to this particularly sensitive area. Proposals to remove trees at Bluff Point have been the subject of several meetings between

DEEP staff and the CAA with their consultants to discuss minimizing and mitigating impacts of clearing. These efforts should be resumed if it is determined through the NEPA/CEPA process that impacts are unavoidable.

Any proposal that involved DEEP property would entail a need for property rights from the Department. Requests for temporary or permanent property rights from DEEP should be requested using DEEP's Land Management Request Application (copy attached). All such requests are reviewed by a multidisciplinary panel of DEEP staff that comprise the DEEP Property Management Review Team. After the NEPA/CEPA process has identified alternatives that avoid and minimize adverse impact, this review process can identify more specific mitigation measures for any project elements on DEEP property.

The DEEP Natural Diversity Data Base has reviewed the maps depicting the potentially affected areas surrounding the six airports to determine whether there are any records of extant populations of Federally listed endangered or threatened species or species listed by the State, pursuant to section 26-306 of the CGS, as endangered, threatened or special concern in the area. There are records of state listed species within or very close to the boundaries of these areas at five of the airports; there are no records at the Danielson Airport. Lists of these species are attached.

In addition, the Federal Threatened bat species *Myotis septentrionalis* (northern long-eared bat) may be impacted by tree-clearing activities. Additional information on this bat species can be found at: [Long-Eared Bat](#). Consultation with the U.S. Fish & Wildlife Service (FWS) may be required pursuant to Section 7 of the Endangered Species Act. The FWS contact for the northern long-eared bats for New England is Susi von Oettingen: (Susi_vonOettingen@fws.gov).

Consultations with the NDDDB Program should not be substitutes for onsite surveys required for environmental assessments. Depending on the extent of clearing proposed and the habitats that may be affected, surveys for some of the listed species may be required.

A report summarizing the results of surveys should include:

- survey date(s) and duration,
- site descriptions and photographs,
- list of component vascular plant and animal species within the survey area (including scientific binomials),
- data regarding population numbers and/or area occupied by State-listed species,
- detailed maps of the area surveyed including the survey route and locations of State-listed species,
- statement/resumé indicating the biologist's qualifications, and
- protection or conservation strategies and plans to protect species from project impacts.

The environmental document should include an evaluation of potential impacts to federal and state listed species as well as mitigation measures to protect these species. Based on the information included in the EIE, the NDDDB will re-evaluate species impacts related to these projects.

Please be advised that this is a preliminary review and not a final determination. A more detailed review will be necessary to move forward with any subsequent environmental permit applications submitted to DEEP for the proposed project. Natural Diversity Data Base information includes all information regarding critical biological resources available to us at the time of the request. This information is a compilation of data collected over the years by the Department of Energy and Environmental Protection's Natural History Survey and cooperating units of DEEP, private conservation groups and the scientific community. This information is not necessarily the result of comprehensive or site-specific field investigations. Current research projects and new contributors continue to identify additional populations of species and locations of habitats of concern, as well as, enhance existing data. Such new information is incorporated into the Data Base as it becomes available. The result of this review does not preclude the possibility that listed species may be encountered on site and that additional action may be necessary to remain in compliance with certain state permits.

Existing inland wetlands and watercourses at the sites of proposed clearing should be delineated by a certified soil scientist and their functional values should be evaluated. Any clearing and access roadways should avoid regulated areas to the maximum extent practicable. Unavoidable impacts should be mitigated and buffer areas established to further protect wetlands and watercourses. The degree of impact should be quantified by acreage and a discussion of the functional values that would be lost or impaired should be included in any CEPA document. Because the CAA is a public instrumentality, any work or construction activity within inland wetland areas or watercourses will require a permit from the Inland Water Resources Division (IWRD) pursuant to section 22a-39(h) of the Connecticut General Statutes.

If there are any potential tidal wetlands at sites of proposed clearing, a qualified botanist should delineate regulated areas as defined by section 22a-29(2) of the CGS. Any regulated activity will require a permit from the Office of Long Island Sound Programs pursuant to section 22a-32 of the CGS.

Because the CAA is not a state department, institution or agency, it is not subject to flood management certification pursuant to section 25-68d of the CGS, even if activities are proposed within the 100-year flood zone on the community's Flood Insurance Rate Map.

Stormwater discharges from construction sites where one or more acres are to be disturbed, regardless of project phasing, require an NPDES permit from the Permitting & Enforcement Division. The *General Permit for the Discharge of Stormwater and Dewatering Wastewaters Associated with Construction Activities* (DEEP-WPED-GP-015) will cover these discharges. The construction stormwater general permit dictates separate compliance procedures for Locally Approvable projects and Locally Exempt projects (as defined in the permit). Locally Exempt construction projects, such as those performed by CAA, disturbing over 1 acre must submit a registration form and Stormwater Pollution Control Plan (SWPCP) to the Department. The SWPCP must include measures such as erosion and sediment controls and post construction stormwater management. A goal of 80 percent removal of total suspended solids from the stormwater discharge shall be used in designing and installing post-construction stormwater management measures. The general permit also requires that post-construction control measures incorporate runoff reduction practices, such as LID techniques, to meet performance standards specified in the permit. For further information, contact the division at 860-424-3018. A copy

of the general permit as well as registration forms may be downloaded at: [Construction Stormwater GP](#).

If there are any questions concerning these comments, please contact me.

cc: Robert Hannon, DEEP/OPPD
Jeff Caiola, DEEP/IWRD
David Kozak, DEEP/OLISP
Dawn McKay, DEEP/NDDB
Graham Stevens, DEEP/OPPD



STATE OF CONNECTICUT

DEPARTMENT OF ENERGY & ENVIRONMENTAL PROTECTION

OFFICE OF ENVIRONMENTAL REVIEW

79 ELM STREET, HARTFORD, CT 06106-5127

To: Robert J. Bruno – Director of Planning, Engineering & Environment
Connecticut Airport Authority, 334 Ella Grasso Turnpike, Windsor Locks

From: David J. Fox - Senior Environmental Analyst **Telephone:** 860-424-4111

Date: May 31, 2016 **E-Mail:** david.fox@ct.gov

Subject: Windham Airport Obstruction Removal Project

The Department of Energy & Environmental Protection (DEEP) has reviewed the Environmental Impact Evaluation (EIE) prepared by the Connecticut Airport Authority (CAA) for proposed obstruction removal in the area surrounding Windham Airport. The following comments are submitted for your consideration.

The Department recognizes that the need to remove obstructions to the airspace surrounding the airport to ensure safe operation will require clearing of trees beyond the airport, including on some of our own property. We also understand the CAA's challenge in striking the correct balance between public safety and resource impacts in developing a plan to remove obstructions. Our comments on the EIE focus on resolving some confusion we had in reviewing the document, clarifying the extent of proposed tree clearing and recommending measures to consider to further minimize impacts to the more important natural resources.

We realize that detailed information on the extent of clearing may not be available at this time. As noted in our scoping comments for all 6 CAA airports, post-CEPA review by the multidisciplinary DEEP Property Management Review Team will be the appropriate forum to identify more specific mitigation measures for any project elements on DEEP property. Wetland permitting will serve a similar role for tree cutting within regulated areas. Additional information required for these review processes include specific extent of area to be cleared, methodology for tree removal, disposal of crowns, any treatment of stumps to prevent regrowth, access routes and staging areas.

The text describing alternatives outlines the full and modified obstruction removal options, which appear to involve the same techniques, as noted on page 3-5, but which differ in the airspace surfaces used to define penetrations. The preferred alternative, modified obstruction removal, uses the 20:1 threshold surface for off-airport locations that would define fewer obstructions than the 34:1 approach surface. However, the figure depicting the Runway 27 end shows only the 34:1 approach surface and does not differentiate between approach surface and TERPS obstructions as in the Runway 9 and 18 figures. DEEP property at parcels 16, 18, 36 and 40 are all off the Runway 27 end. It appears that use of the steeper surface would require removal of fewer trees in these areas.

In addition, the figures depict different areas for 'Tree Removal' and 'Selective Removal of Trees.' The former is noted to involve retaining undergrowth and small trees and brush,

which corresponds to the techniques listed on page 3-5. The text of the document does not discuss selective removal of trees, which presumably involves less impact in those areas. This should be clarified. Again, this pertains to DEEP property off the Runway 27 end.

The figure for the Runway 9 end identifies a Tree Removal Area, not a Selective Removal Area, on the banks of the Willimantic Reservoir; the differential impact of this designation should be described. Although it is understood that depicted obstructions do not identify all trees to be removed, it appears that the TERPS obstructions are generally further away from the banks of the reservoir. Based on the EIE description, the preferred (modified obstruction removal) alternative would remove trees that are TERPS obstructions of the threshold surface but not trees that are approach surface obstructions. This should also be clarified.

Overall, the EIE should outline specific criteria that will be utilized to identify tree obstructions slated for removal under the modified obstruction removal alternative in both 'tree removal' and 'selective tree removal' areas. The height of 'sizable' or 'tall' trees that would result in removal should be discussed. Perhaps, maps could be generated by using GIS data for ground elevation and threshold surface elevation that would depict the height of obstructions that would penetrate the threshold surface at various locations. It would be helpful if some rough of numbers of trees to be eliminated could be estimated.

The table describing the full obstruction removal alternative notes that outer surfaces are to be protected with lighting and the title of the document in the header, but not the cover, includes lighting. However, lighting is not mentioned in the table describing the preferred modified obstruction removal alternative. The absence of beacons or other lighting under the preferred alternative should be confirmed. Alternatively, if lighting is proposed, additional information regarding locations, construction techniques and potential impacts should be provided.

The EIE notes that a state wetlands permit will likely be required. The Inland Water Resources Division (IWRD) confirms that this is the case. Conversely, the document concludes that a Section 401 Water Quality Certification and Section 404 Permit will not be required. However, based on recent information from the Army Corps of Engineers, the use of timber mats in wetlands are considered temporary fill and any ground disturbance (soil movement and redeposition of wetland soils) is considered to be a discharge, so if these activities are proposed, the project would require certification and a permit.

Wetlands at the airport and surrounding properties were not delineated but were described in the document. It would have been helpful to reviewers for the locations of wetlands, if not the exact extents, to be shown on the figures.

The figure for Runway 27 depicts proposed terrain grading just southeast of the runway end within the Mansfield Hollow Wildlife Area. The picture on page 4-9 shows this as one location of wetlands. If wetlands are proposed to be graded, the need will have to be demonstrated during permitting.

For any tree clearing on State property, the DEEP will request that all commercially viable material be cut to specifications to be provided by the Division of Forestry and delivered to the DEEP sawmill located at the Portland Depot, 163 Great Hill Road, Portland.

At the ends of Runways 18 and 27, areas for selective removal of trees extend to the banks of the Natchaug River. The Natchaug River supports a diverse, coldwater fish community consisting of stocked and wild trout. Page 5-15 explains the importance of maintaining streambank vegetation and notes that steep banks may lead to retaining some trees. In accordance with the Inland Fisheries Division Riparian Corridor policy, the Department recommends that every effort be made to maintain a 100 ft. wide natural undisturbed riparian buffer adjacent to the Natchaug River. See link for a copy of the policy: [Riparian Corridor Policy](#). A significant riparian buffer adjacent to the river that regulates water temperatures and minimizes sedimentation into the river is also essential to minimize impacts to state-listed damselflies and freshwater mussels.

Clearing within the sandplain habitat located north of Runway 18 and south of the Natchaug River is of particular concern to the Natural Diversity Data Base. Additional detail will be required for work to be conducted in this area, including any grading and how trees will be removed. Host plants of state-listed invertebrates, including scrub oak (*Quercus ilicifolia*), pitch pine (*Pinus rigida*), wild lupine (*Lupinus perennis*), old-field toadflax (*Nuttallanthus canadensis*) and wild indigo (*Baptisia tinctoria*), should be preserved.

The Natural Diversity Data Base recommends the retention of pitch pines, wherever they are found, as it is a tree species utilized by rare lepidoptera that has come under threat by the range expansion of the Southern pine beetle (*Dendroctonus frontalis*). In addition, crowns should not be chipped and distributed in areas where pitch pine and scrub oak occur. The deposition of wood chips in these areas have the potential to smother native herbaceous growth, facilitate colonization of invasive species and impact State-listed invertebrates (especially those which are ground-nesting).

Most of the work seems to skirt the grassed areas in the airport. If grassland habitat will be impacted, it should not be during the avian nesting season (May 1- August 15).

Both pages 4-8 and 5-15 describe the Natchaug River meeting the Willimantic River; the confluence of these rivers is several miles to the south in Willimantic. On page 5-15, IWRD is incorrectly identified as Inland Wetland Resources Division.

Thank you for the opportunity to review this proposal. If there are any questions concerning these comments, please contact me.

cc: Jeff Caiola, DEEP/IWRD
Nelson DeBarros, DEEP/NDDB
Robert Hannon, DEEP/OPPD
William Hochholzer, DEEP/FD
Christopher Martin, DEEP/FD

Dawn McKay, DEEP/NDDB
Brian Murphy, DEEP/IFD
Laura Saucier, DEEP/NDDB
Graham Stevens, DEEP/OPPD
Tom Tyler, DEEP/SPD

STATE OF CONNECTICUT

DEPARTMENT OF PUBLIC HEALTH



Raul Pino, M.D., M.P.H.
Commissioner

Dannel P. Malloy
Governor
Nancy Wyman
Lt. Governor

Drinking Water Section

May 23, 2016

Mr. Robert J. Bruno
Director of Planning, Engineering, & Environmental
Connecticut Airport Authority
334 Ella Grasso Turnpike, Suite 160
Windsor Locks, CT 06096

Re: Notice of Environmental Assessment for the Connecticut Airport Authority (CAA) Off-Airport Tree Obstruction Removal at the Windham Airport
DPH Project No.: 2015-0237

Dear Mr. Bruno:

The Department of Public Health (DPH) Drinking Water Section (DWS) has reviewed the Environmental Assessment for above noted project. The CAA proposes to selectively remove obstructions (trees) to promote safety by bringing the airport into compliance with Federal Aviation Administration design standards and regulations regarding clear air space. Affected parcels 1 and 36 through 39 are located within the public water supply watersheds of the Willimantic Reservoir and Mansfield Hollow Reservoir, sources of public drinking water for the customers of Windham Water Works (PWSID# CT1630011). Parcel 1 appears to be owned by the Town of Windham and if so, would be classified as Class I and II water company land.

The CAA selected Modified Obstruction Removal as the preferred alternative to meet the project need. The DPH has reviewed the Environmental Assessment for this Proposed Action. It appears that not all trees will be cleared, those that are felled will be left in place and vegetation will remain undisturbed. The EA proposes to utilize numerous good management practices to mitigate the impact of the Proposed Action on wetlands and habitat. These practices will also serve to protect the source of public drinking water. In addition to the practices already incorporated into the EA, the DPH requests that the following comments are incorporated into the final Environmental Assessment:

- The CAA should consult with Windham Water Works during the design phase of the project to ensure that the Project is implemented in a manner that balances public health protection with airport safety.



Phone: (860) 509-7333 • Fax: (860) 509-7359 • VP: (860) 899-1611

410 Capitol Avenue, P.O. Box 340308, MS#51WAT

Hartford, Connecticut 06134-0308

www.ct.gov/dph/publicdrinkingwater


Affirmative Action/Equal Opportunity Employer

Mr. Bruno
May 23, 2016
Page 2

- The CAA should include the recommendations found in [General Construction Best Management Practices for Sites within a Public Drinking Water Supply Area.](#)
- The CAA should refrain from the use of pesticides and herbicides within the public drinking water supply source water area.

If you have any questions, you may contact Pat Bisacky of my staff at the number below.

Sincerely,

A handwritten signature in dark ink, appearing to read 'Eric McPhee', with a long horizontal flourish extending to the right.

Eric McPhee
Supervising Environmental Analyst
Drinking Water Section

Cc: Patrice Sulik, Director of Health, North Central District Health Department
James Hooper, Windham Water Works

Loewenstein, Jean

From: Labadia, Catherine <Catherine.Labadia@ct.gov>
Sent: Wednesday, January 04, 2017 2:27 PM
To: Loewenstein, Jean
Cc: McDonnell, Paul
Subject: RE: Environmental Assessment for Obstruction Removal and Lighting- CAA General Aviation Airports and Bradley International Airport

Jean,
I am very embarrassed to say that I am finally getting to review items from November – my apologies. Yes, the surveys are not required if the beacons are no longer part of the project.
Thank you for providing the additional information,
Cathy

From: Loewenstein, Jean [mailto:RLoewenstein2@chacompanies.com]
Sent: Tuesday, October 18, 2016 10:55 AM
To: Labadia, Catherine
Cc: McDonnell, Paul
Subject: FW: Environmental Assessment for Obstruction Removal and Lighting- CAA General Aviation Airports and Bradley International Airport

Good Morning Catherine,
I am following up on my email and phone call of last week regarding the CAA's Environmental Assessments for Obstruction Removal. We would like to confirm that as the installation of beacons is no longer a part of any of these projects, the request for professional cultural resource assessment and reconnaissance surveys no longer applies.

Please contact me with any questions.

Jean

From: Loewenstein, Jean
Sent: Monday, October 10, 2016 10:22 AM
To: 'Labadia, Catherine' <Catherine.Labadia@ct.gov>
Cc: McDonnell, Paul <PMcDonnell@chacompanies.com>; Martelle Sr, Jeremy <JMartelle@chacompanies.com>
Subject: Environmental Assessment for Obstruction Removal and Lighting- CAA General Aviation Airports and Bradley International Airport

Good Morning Catherine,
I am contacting you in regard to the above referenced projects and correspondence from your office dated November 17, 2015 (attached). In this correspondence your office indicated that while tree removal would not result in impacts to archeological sites, the installation of beacons would require the completion of professional cultural resource assessment and reconnaissance surveys prior to their installation. Since the date of this correspondence, the planned beacons have removed from all five general aviation airports and Bradley International airport and as such the projects will not require the completion of the above referenced surveys.

Should you have any questions, please do not hesitate to contact me.

Jean Loewenstein
Principal Planner

CHA ~ *design/construction solutions*

Office: (518) 453-8771

jloewenstein@chacompanies.com

www.chacompanies.com



Responsibly Improving the World We Live In





U.S. Department
of Transportation
**Federal Aviation
Administration**

Federal Aviation Administration
New England Region

12 New England Executive Park
Burlington, MA 01803

November 8, 2016

Ms. Catherine Labadia, Staff Archeologist
Connecticut Department of Economic & Community Development
Offices of Culture and Tourism, State Historic Preservation Office
One Constitution Plaza-2nd Floor
Hartford, CT. 06103

RE: Connecticut Airport Authority - Obstruction Removal at various Airports

Dear Ms. Labadia:

This is in regards to past correspondence dated September 30, 2015 to your office as it relates to historic and archeological resources. In your November 17, 2015 response SHPO identified no issues with tree removal but did identify a potential concern as it relates to the installation of beacons. Past correspondence is attached for your convenience.

Since that time the installation of beacons has been eliminated from consideration at all the above referenced airports. After review of the relevant information, the FAA issues a Section 106 Finding of No Adverse Effects to Historic Properties.

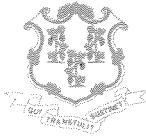
If you have any questions, please feel free to contact me at 781-238-7613 or richard.doucette@faa.gov or the CAA Director of Engineering Robert Bruno at (860) 254-5516 or rbruno@ctairports.org

Sincerely,

Richard P. Doucette
Manager of Environmental Programs
FAA New England Region

Enclosures

Cc: Colin Goegel, Project Manager, CAA
Robert Bruno, Director of Planning Engineering and Environmental, CAA
Kurt Sendlein, Airport Manager



November 17, 2015

Ms. Jean Lowenstein
CHA, Inc.
3 Winners Circle
Albany, NY 12205

Subject: Connecticut Airport Authority NEPA Environmental Assessment for Obstruction
Removal and Lighting at
Hartford-Brainard Airport, Hartford (CHA 29067)
Danielson Airport, Killingly (CHA 29067)
Waterford-Oxford Airport, Oxford (CHA 29067)
Windham Airport, Windham (CHA 29067)
Bradley International Airport, Windsor Locks (CHA 29055)

Dear Ms. Lowenstein:

The State Historic Preservation Office (SHPO) has reviewed your request for our comments regarding potential effects to historic properties for the referenced project. The existing airports referenced above have been identified as needing tree removal and pole mounted obstruction beacons. The review request currently exceeds the staffing available at this office. A preliminary review completed by this office identified archeological sites and/or historic districts within or in close proximity to each of the identified facilities. SHPO understands that the tree removal will be done with as little ground disturbance as possible, without grubbing and grading. As a result, this office considers the potential impact to archeological sites from obstruction removal to be minimal, if any.

SHPO is concerned, however, with the effects of the proposed beacons on archeological sites and historic buildings. Several of the proposed beacons are located in areas where archeological sites have been reported, as well as historic buildings or districts. We are therefore requesting that a professional cultural resources assessment and reconnaissance survey be completed prior to construction of any beacons. The survey should take into consideration potential indirect impacts on structures older than fifty years that may be eligible for listing on the National Register of Historic Places. An archeological assessment should determine the appropriate level of investigation based on sufficient research and field visits. Subsurface testing for archeological resources, if warranted, should assess all areas of anticipated ground disturbance that are considered to have a moderate/high sensitivity for containing significant archeological deposits. All work should be in compliance with our *Environmental Review Primer for Connecticut's Archaeological Resources* and no construction or other project-related ground disturbance should be initiated until SHPO has had an opportunity to review and comment upon the requested survey.

The SHPO appreciates the opportunity to review and comment upon this project. These comments are provided in accordance with the Connecticut Environmental Policy Act and Section 106 of the National Historic Preservation Act, as amended. For additional information, please contact me at (860) 256-2764 or catherine.labadia@ct.gov.

Sincerely,

Catherine Labadia
Deputy State Historic Preservation Officer

State Historic Preservation Office

One Constitution Plaza | Hartford, CT 06103 | P: 860.256.2800 | Cultureandtourism.org

An Affirmative Action/Equal Opportunity Employer An Equal Opportunity Lender



September 30, 2015

Ms. Catherine Labadia, Staff Archeologist
Connecticut Department of Economic & Community Development
Offices of Culture and Tourism
State Historic Preservation Office
One Constitution Plaza-2nd Floor
Hartford, CT. 06103

**RE: Connecticut Airport Authority- Windham Airport
NEPA Environmental Assessment (and CEPA EIE) for Obstruction Removal &
Lighting
CHA Project No.: 29067**

Dear Ms. Labadia:

Thank you for your recent assistance regarding submittal requirements to the Connecticut SHPO. On behalf of the Connecticut Airport Authority, CHA is submitting a request for review of the above referenced project located at Windham Airport and vicinity, in the Town of Windham, Windham County Connecticut.

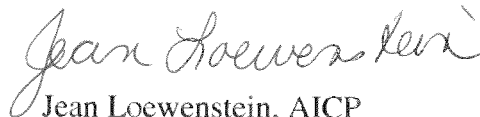
The Connecticut Airport Authority (CAA) previously conducted a detailed study to evaluate existing obstructions that penetrate the federally protected airspace. These obstructions are primarily trees located near runway ends or located on small hills surrounding the Airport. As a follow-up study, the CAA is reviewing the potential impacts of tree removal, and selective clearing or installation of pole-mounted red obstruction beacons in areas that contain airspace obstructions. Objects that penetrate these surfaces are classified as airspace obstructions, and should be removed to safely accommodate approaching and departing aircraft.

To accomplish this, the CAA is conducting an NEPA Environmental Assessment (EA) and CEPA Environmental Impact Evaluation (EIE) to identify affected properties and any potential environmental issues of removing trees and/or installing obstruction lights. No actual tree removal or construction activities are pending at this time; just the required evaluation. Tree removal or obstruction light installation will be accomplished under a future project. Maps outlining the potential location for tree removal and possible siting locations for the beacons are enclosed and can also be found at the project website. The web address is as follows: <http://windhamairport.caa-analysis.com/>.

As part of this evaluation of potential impacts we are requesting that SHPO review the draft mapping of potential tree removal areas and beacon installation locations as it relates to historic and archeological resources so that potential impacts may be considered in future actions. It should also be noted that when tree removal does occur it will generally include clearing, without grubbing or grading and will be implemented with minimal soil disturbance (e.g., removal to trees, with retention stumps and undergrowth).

Thank you for your prompt attention to this matter. If you have any questions, please feel free to contact me at 518-453-8771 or jloewenstein@chacompanies.com or the CAA Director of Engineering Robert Bruno at (860) 254-5516 or rbruno@ctairports.org.

Sincerely,



Jean Loewenstein, AICP
Senior Planner

JL/sc

Enc.

Cc: Colin Goegel, Project Manager, CAA
Robert Bruno, Director of Planning Engineering and Environmental, CAA
Kurt Sendlein, Airport Manager

v:\projects\any\k3\29067\corres\shpo\windham.doc





September 30, 2015

Mr. Thomas Tyler, Director
Bureau of Outdoor Recreation
Connecticut Department of Energy & Environmental Protection
79 Elm Street
Hartford, Connecticut 06106-5127

**RE: Connecticut Airport Authority- Windham Airport
Environmental Assessment for Obstruction Removal and Lighting
CHA File: 29067**

Dear Mr. Tyler:

On behalf of the Connecticut Airport Authority (CAA), CHA is submitting a request for review of the above referenced project located at Windham Airport and vicinity, in the Town of Windham, Windham County Connecticut as it relates to resources defined by Section 4(f) of the Department of Transportation Act of 1966.

The CAA has conducted a detailed study to evaluate existing obstructions that penetrate the federally protected airspace. These obstructions are primarily trees located near runway ends or located on small hills surrounding the Airport. As a follow-up study, the CAA and FAA are reviewing the potential impacts of tree removal, and selective clearing or installation of pole-mounted red obstruction beacons in areas that contain airspace obstructions. Objects that penetrate these surfaces are classified as airspace obstructions, and should be removed to safely accommodate approaching and departing aircraft.


To accomplish this, the CAA is conducting a NEPA Environmental Assessment (EA) and CEPA Environmental Impact Evaluation (EIE) to identify affected properties and any potential environmental issues of removing trees and/or installing a pole-mounted red obstruction lights. No actual tree removal or construction activities are pending at this time; just the required evaluation. Tree removal or obstruction light installation will be accomplished under a future project following appropriate approvals. Maps identifying the potential location for tree removal and possible siting locations for the beacons are enclosed and can also be found at the project website. The web address is as follows:
<http://windhamairport.caa-analysis.com/>.

Two areas have been identified for the selective removal of trees near Runways 27 and 36. Nearby resources include Mansfield Hollow State Park and the Alpine North State Park Trail. In addition a pole mounted obstruction beacon may be installed in Beaver Brook State Park (Beacon IJD-1). Recognizing that these parks are an important statewide resource, we would like your office to review the locations of the potential selective thinning and clearing and beacon installation as it relates to 4(f) resources. It should be noted that when tree removal does occur it will generally include clearing, without grubbing or grading

and will be implemented with minimal soil disturbance (e.g., removal to trees, with retention stumps and undergrowth).

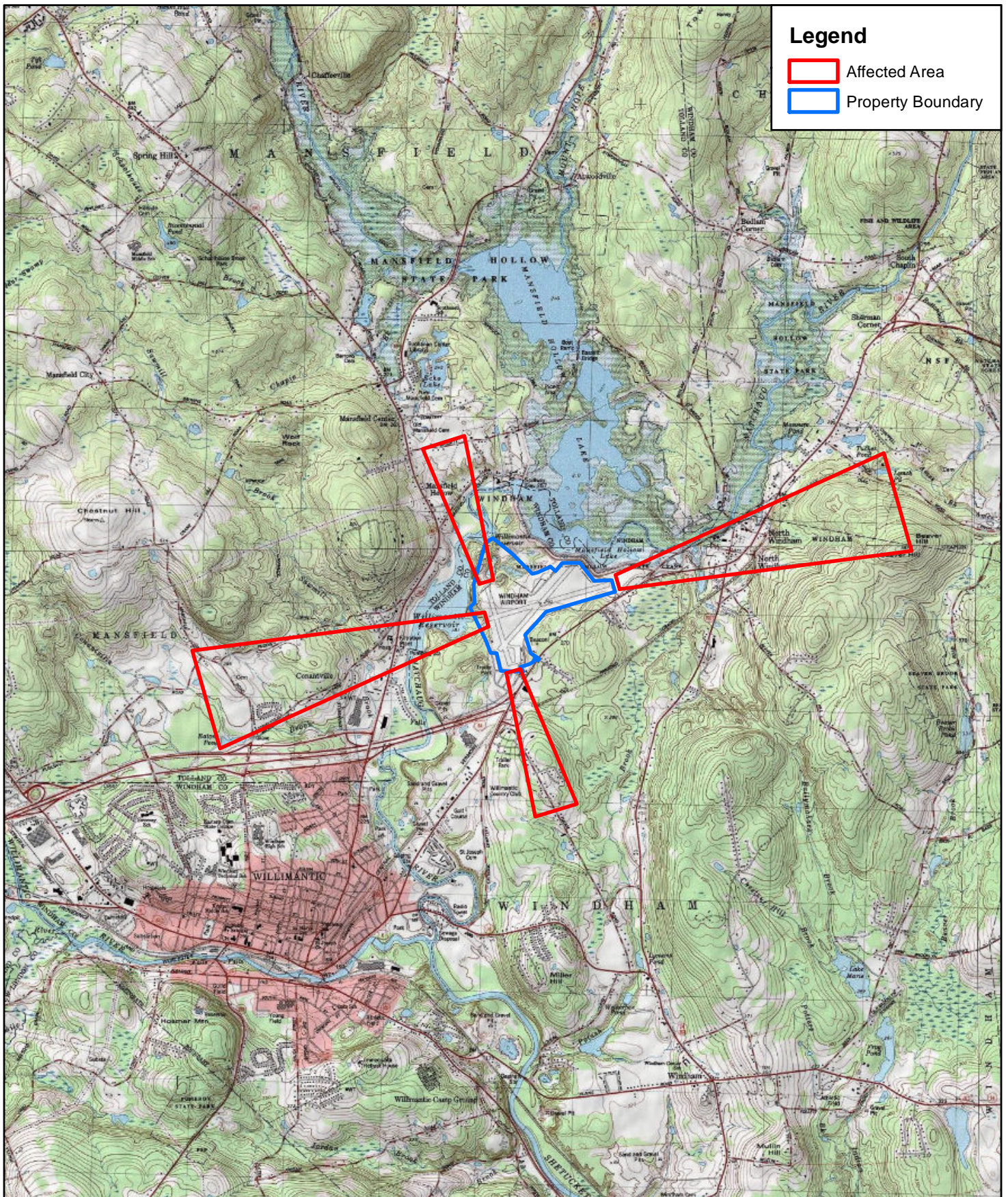
Thank you for your prompt attention to this matter. If you have any questions regarding this project, please feel free to contact me at 518-453-8771 or jloewenstein@chacompanies.com or the CAA Director of Engineering, Robert Bruno at (860) 254-5516 or rbruno@ctairports.org.



Sincerely,


Jean Loewenstein, AICP
Senior Planner

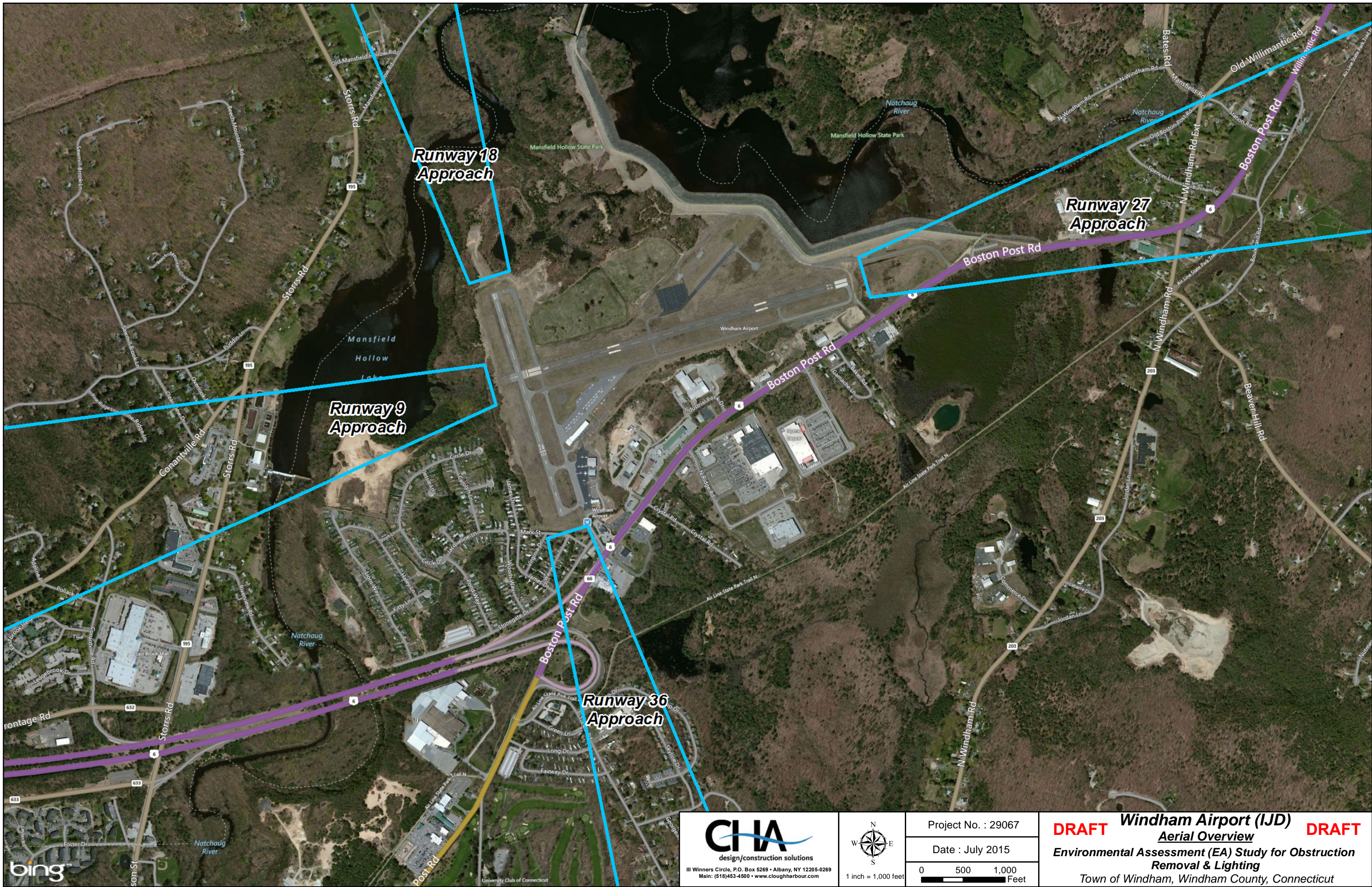
Enc.

cc: Colin Goegel, Project Manager, CAA
Robert Bruno, Director of Planning, Engineering and Environmental, CAA
Kurt Sendlein, Airport Manager



			CAA Environmental Assessment (EA) for Obstruction Removal Project Study Area
	Scale 1" = 4500'	Project No. 29067	

Windham Airport (IJD)
North Windham, Windham County, Connecticut
Willimantic & Spring Hill USGS Quadrangles

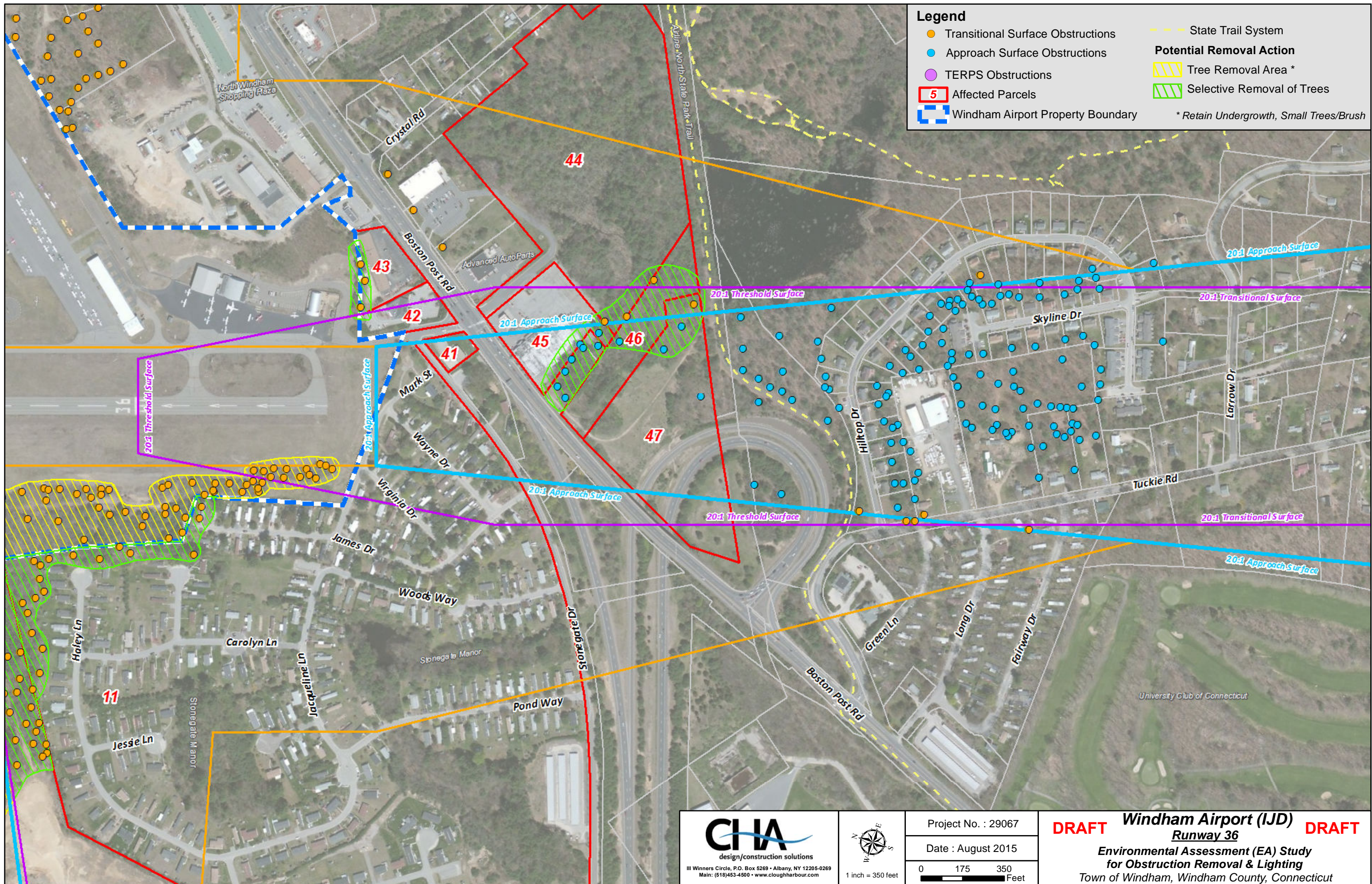


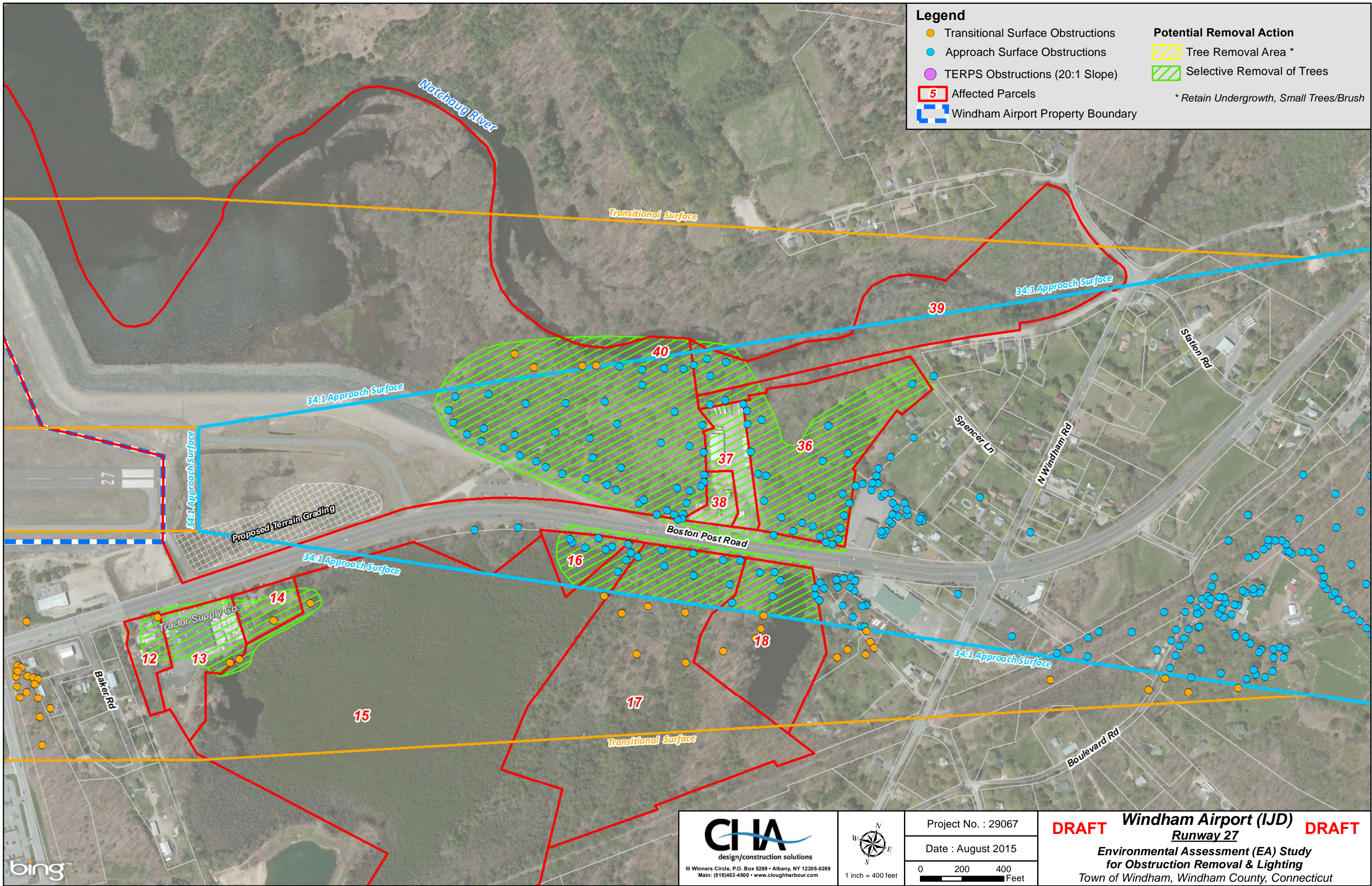
CIA
design/construction solutions
III Winners Circle, P.O. Box 5269 • Albany, NY 12205-0269
Main: (518)453-4500 • www.cloughharbour.com

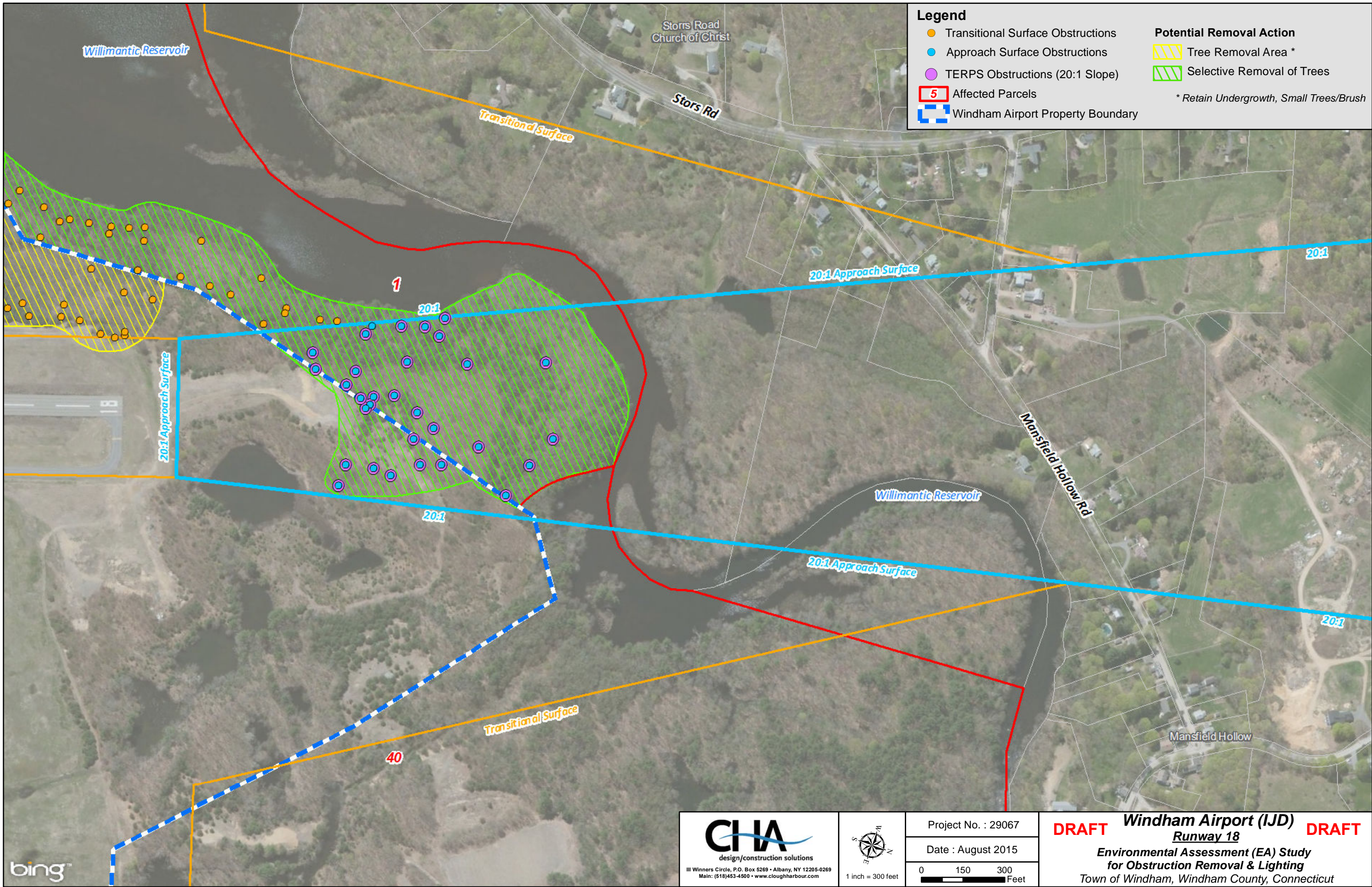
North Arrow
1 inch = 1,000 feet

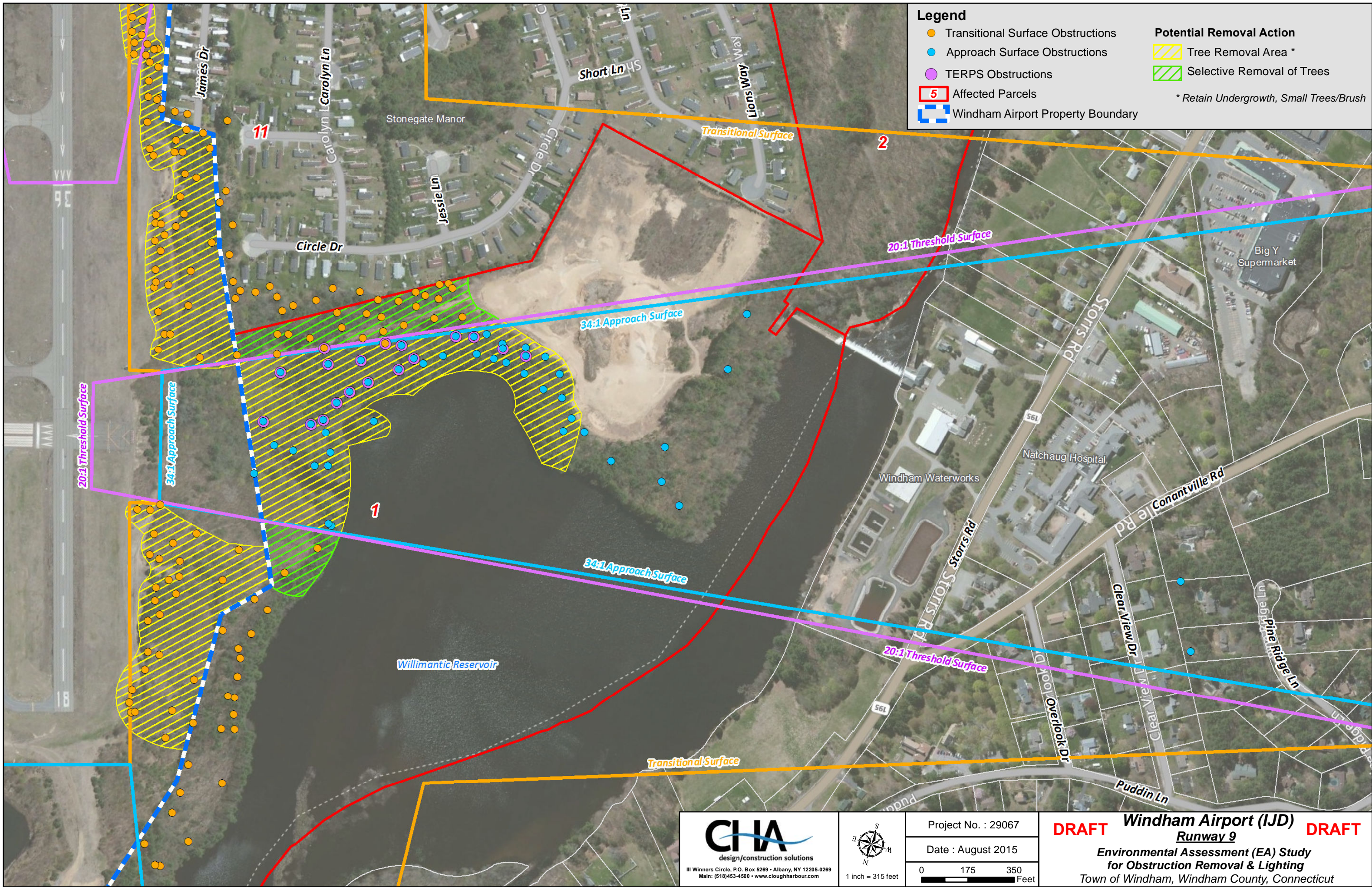
Project No. : 29067
Date : July 2015
0 500 1,000 Feet

DRAFT **Windham Airport (IJD)** **DRAFT**
Aerial Overview
Environmental Assessment (EA) Study for Obstruction
Removal & Lighting
Town of Windham, Windham County, Connecticut









Legend

- Transitional Surface Obstructions
- Approach Surface Obstructions
- TERPS Obstructions
- 5** Affected Parcels
- Windham Airport Property Boundary

Potential Removal Action

- Tree Removal Area *
- Selective Removal of Trees

* Retain Undergrowth, Small Trees/Brush



U.S. Department
of Transportation
**Federal Aviation
Administration**

OCT 20 2015

New England Region
Office of the Regional Administrator

12 New England Executive Park
Burlington, MA 01803

CERTIFIED MAIL – RETURN RECEIPT REQUESTED

Kathleen Knowles
Tribal Historic Preservation Officer
Mashantucket Pequot Tribal Nation
550 Trolley Line Blvd., P.O. Box 3202
Mashantucket, CT 06338

Dear Ms. Knowles:

**Government-to-Government Consultation Invitation
Airport Projects at six Connecticut Airports**

The Federal Aviation Administration (FAA), in cooperation with airport owners and operators, is proposing projects at six Connecticut Airports, as outlined herein.

Purpose of Government-to-Government Consultation

The purpose of Government-to-Government consultation as described in the National Historic Preservation Act, Section 106, Federal Executive Order 13175, "Consultation and Coordination with Indian Tribal Governments," and FAA's Order 1210.20, "American Indian and Alaska Native Tribal Consultation Policy and Procedures," is to ensure that Federally Recognized Tribes are given the opportunity to provide meaningful and timely input regarding proposed FAA undertakings that uniquely or significantly affect Tribes.

Consultation Initiation

With this letter, the FAA is inviting the Mashantucket Pequot Tribal Nation to consult on concerns that may significantly affect your Tribe related to the proposed airport improvements. Early identification of Tribal concerns will allow the FAA and the airport owner and operator to consider ways to avoid, mitigate, or minimize potential impact to Tribal resources and practices as project alternatives are developed and refined.

Project Information

The Connecticut Airport Authority proposes to clear trees and install lights around Bradley International Airport, Waterbury-Oxford Airport, Danielson Airport, Hartford-Brainard Airport, Windham Airport and Groton-New London Airport. Enclosed are individual plans showing the location of the areas potentially affected by the proposed clearing and lighting. More detailed plans can be found at the Airport Websites. See the web links below. All the

maps are located under the *project documents* tab. Please let us know if you would like hardcopies of any individual plans.

- <http://bradleyairport.caa-analysis.com>
- <http://waterburyairport.caa-analysis.com>
- <http://hartfordairport.caa-analysis.com>
- <http://danielsonairport.caa-analysis.com>
- <http://grotonairport.caa-analysis.com>
- <http://windhamairport.caa-analysis.com>

Confidentiality

We understand that you may have concerns regarding the confidentiality of the information on areas or resources of religious, traditional, and cultural importance to the tribe. We would be happy to discuss these concerns and develop procedures to ensure the confidentiality of such information is maintained.

FAA Contact Information

Your timely response will assist us in incorporating your concerns into project planning. For that reason, we respectfully request that you contact FAA within thirty days of your receipt of this correspondence as to your interest in Government-to-Government Consultation regarding these projects.

You may contact FAA's Regional Tribal Consultation Official, Todd Friedenberg by telephone at 781-238-7022, or by email at Todd.D.Friedenberg@faa.gov. At that time, the consultation request will be provided to the FAA, Airports Division.

Sincerely,



Amy L. Corbett
Regional Administrator

Enclosures



U.S. Department
of Transportation
**Federal Aviation
Administration**

New England Region
Office of the Regional Administrator

12 New England Executive Park
Burlington, MA 01803

OCT 20 2015

CERTIFIED MAIL – RETURN RECEIPT REQUESTED

James Quinn
Tribal Historic Preservation Officer
Mohegan Tribe
13 Crow Hill Rd.
Uncasville, CT 06382

Dear Mr. Quinn:

**Government-to-Government Consultation Invitation
Airport Projects at six Connecticut Airports**

The Federal Aviation Administration (FAA), in cooperation with airport owners and operators, is proposing projects at six Connecticut Airports, as outlined herein.

Purpose of Government-to-Government Consultation

The purpose of Government-to-Government consultation as described in the National Historic Preservation Act, Section 106, Federal Executive Order 13175, "Consultation and Coordination with Indian Tribal Governments," and FAA's Order 1210.20, "American Indian and Alaska Native Tribal Consultation Policy and Procedures," is to ensure that Federally Recognized Tribes are given the opportunity to provide meaningful and timely input regarding proposed FAA undertakings that uniquely or significantly affect Tribes.

Consultation Initiation

With this letter, the FAA is inviting the Mohegan Tribe to consult on concerns that may significantly affect your Tribe related to the proposed airport improvements. Early identification of Tribal concerns will allow the FAA and the airport owner and operator to consider ways to avoid, mitigate, or minimize potential impact to Tribal resources and practices as project alternatives are developed and refined.

Project Information

The Connecticut Airport Authority proposes to clear trees and install lights around Bradley International Airport, Waterbury-Oxford Airport, Danielson Airport, Hartford-Brainard Airport, Windham Airport and Groton-New London Airport. Enclosed are individual plans showing the location of the areas potentially affected by the proposed clearing and lighting. More detailed plans can be found at the Airport Websites. See the web links below. All the

maps are located under the *project documents* tab. Please let us know if you would like hardcopies of any individual plans.

- <http://bradleyairport.caa-analysis.com>
- <http://waterburyairport.caa-analysis.com>
- <http://hartfordairport.caa-analysis.com>
- <http://danielsonairport.caa-analysis.com>
- <http://grotonairport.caa-analysis.com>
- <http://windhamairport.caa-analysis.com>

Confidentiality

We understand that you may have concerns regarding the confidentiality of the information on areas or resources of religious, traditional, and cultural importance to the tribe. We would be happy to discuss these concerns and develop procedures to ensure the confidentiality of such information is maintained.

FAA Contact Information

Your timely response will assist us in incorporating your concerns into project planning. For that reason, we respectfully request that you contact FAA within thirty days of your receipt of this correspondence as to your interest in Government-to-Government Consultation regarding these projects.

You may contact FAA's Regional Tribal Consultation Official, Todd Friedenbergl by telephone at 781-238-7022, or by email at Todd.D.Friedenberg@faa.gov. At that time, the consultation request will be provided to the FAA, Airports Division.

Sincerely,



Amy L. Corbett
Regional Administrator

Enclosure



June 5, 2015

Mayor Elizabeth C. Patterson
Audrey P. Beck Municipal Building
4 South Eagleville Road
Mansfield, CT 06268

RE: Windham Airport
Environmental Assessment for Obstruction Removal and Lighting
Connecticut Airport Authority

Dear Mayor Patterson:

The Connecticut Airport Authority (CAA) has conducted a detailed study to evaluate existing obstructions that penetrate Windham Airport's (Airport) federally protected airspace. These obstructions are primarily trees located near runway ends or located on small hills surrounding the Airport. As a follow-up study, the CAA is reviewing the potential impacts of removing trees and/or installing a pole-mounted red obstruction light in areas that contain airspace obstructions.

To accomplish this, the CAA is conducting an Environmental Assessment (EA) under federal and state regulations to identify affected properties and any potential environmental issues of removing trees and/or installing pole-mounted red obstruction lights. No actual tree removal or construction activities are pending at this time; just the required evaluation. As more information becomes available it will be posted on the following website: <http://windhamairport.caa-analysis.com>.

Several properties in the Town of Mansfield have been identified as potentially having an obstruction that penetrates the federally protected airspace. A map identifying the existing tree obstruction areas and a list of affected parcel is enclosed.

The CAA has contracted with the consulting firm of Clough Harbour Associates (CHA) to prepare the required environmental assessment. CHA will be conducting visual reviews of the subject areas. In many instances the field personnel will complete their review from the public right-of-way; however in certain instances personnel may find it necessary to briefly enter private property to observe trees and site conditions with permission from homeowners. These inspections will occur in the spring and summer of 2015. These personnel will all carry proper identification (sample attached).

Should you have any questions or concerns regarding this project, please contact Jean Loewenstein with CHA. She can be reached (518) 453-8771 or via email at jloewenstein@chacompanies.com.

Sincerely,

Kevin A. Dillon, A.A.E.
Executive Director

Enclosure



June 5, 2015

Mayor Ernest Eldridge
979 Main Street
Windham Town Hall
Willimantic, CT 06226

RE: Windham Airport
Environmental Assessment for Obstruction Removal and Lighting
Connecticut Airport Authority

Dear Mayor Eldridge:

The Connecticut Airport Authority (CAA) has conducted a detailed study to evaluate existing obstructions that penetrate Windham Airport's (Airport) federally protected airspace. These obstructions are primarily trees located near runway ends or located on small hills surrounding the Airport. As a follow-up study, the CAA is reviewing the potential impacts of removing trees and/or installing a pole-mounted red obstruction light in areas that contain airspace obstructions.

To accomplish this, the CAA is conducting an Environmental Assessment (EA) under federal and state regulations to identify affected properties and any potential environmental issues of removing trees and/or installing pole-mounted red obstruction lights. No actual tree removal or construction activities are pending at this time; just the required evaluation. As more information becomes available it will be posted on the following website: <http://windhamairport.caa-analysis.com>.

Several properties in the Town of Windham have been identified as potentially having an obstruction that penetrates the federally protected airspace. A map identifying the existing tree obstruction areas and a list of affected parcel is enclosed.

The CAA has contracted with the consulting firm of Clough Harbour Associates (CHA) to prepare the required environmental assessment. CHA will be conducting visual reviews of the subject areas. In many instances the field personnel will complete their review from the public right-of-way; however in certain instances personnel may find it necessary to briefly enter private property to observe trees and site conditions with permission from homeowners. These inspections will occur in the spring and summer of 2015. These personnel will all carry proper identification (sample attached).

Should you have any questions or concerns regarding this project, please contact Jean Loewenstein with CHA. She can be reached (518) 453-8771 or via email at jloewenstein@chacompanies.com.

Sincerely,

Kevin A. Dillon, A.A.E.
Executive Director

Enclosure



September 29, 2015

Town of Windham
979 Main Street
Willimantic, CT 06226

RE: Windham Airport
Environmental Assessment for Obstruction Removal and Lighting
Connecticut Airport Authority

Dear Mayor Eldridge:

In May I sent you a letter informing you of an ongoing Environmental Assessment Project to evaluate existing obstructions that penetrate the federally protected airspace at Windham Airport. As part of this project, the Connecticut Airport Authority (CAA) in conjunction with the Federal Aviation Administration (FAA) is reviewing the potential environmental impacts to install pole-mounted red obstruction beacons in these areas.

No actual tree removal or construction activities are pending at this time. Maps outlining the obstructions and possible locations for the beacons are located on the project website. The web address is: <http://windhamairport.caa-analysis.com/>.

Several properties in your Town have been identified as potentially serving as a location for the access route to the beacon site or a location for the installation of the beacon. As a result, the study requires a CAA consultant, Clough Harbour & Associates (CHA), to conduct visual reviews of the subject areas. In many instances, the field personnel will conduct their review from the public right-of-way; however, personnel may find it necessary to briefly enter private property to determine appropriate access and observe site conditions in the fall of 2015. These personnel will all carry proper identification (see attached). A list of affected properties is attached for your reference.

Should you have any questions or concerns regarding the field observation, please contact Jean Loewenstein with CHA. Ms. Loewenstein can be reached at (518) 453-8771 or via email at jloewenstein@chacompanies.com.

Sincerely,

A handwritten signature in dark ink, appearing to read 'Kevin A. Dillon', is written over the printed name.

Kevin A. Dillon, A.A.E.
Executive Director



September 29, 2015

Town of Mansfield
Audrey P. Beck Municipal Building
4 South Eagleville Road
Mansfield, CT 06268

RE: Windham Airport
Environmental Assessment for Obstruction Removal and Lighting
Connecticut Airport Authority

Dear Mayor Paterson:

In May I sent you a letter informing you of an ongoing Environmental Assessment Project to evaluate existing obstructions that penetrate the federally protected airspace at Windham Airport. As part of this project, the Connecticut Airport Authority (CAA) in conjunction with the Federal Aviation Administration (FAA) is reviewing the potential environmental impacts to install pole-mounted red obstruction beacons in these areas.

No actual tree removal or construction activities are pending at this time. Maps outlining the obstructions and possible locations for the beacons are located on the project website. The web address is: <http://windhamairport.caa-analysis.com/>.

Several properties in your Town have been identified as potentially serving as a location for the access route to the beacon site or a location for the installation of the beacon. As a result, the study requires a CAA consultant, Clough Harbour & Associates (CHA), to conduct visual reviews of the subject areas. In many instances, the field personnel will conduct their review from the public right-of-way; however, personnel may find it necessary to briefly enter private property to determine appropriate access and observe site conditions in the fall of 2015. These personnel will all carry proper identification (see attached). A list of affected properties is attached for your reference.

Should you have any questions or concerns regarding the field observation, please contact Jean Loewenstein with CHA. Ms. Loewenstein can be reached at (518) 453-8771 or via email at jloewenstein@chacompanies.com.

Sincerely,

Kevin A. Dillon, A.A.E.
Executive Director



September 29, 2015

Town of Chaplin
495 Phoenixville Road
Chaplin, CT 06235

RE: Windham Airport
Environmental Assessment for Obstruction Removal and Lighting
Connecticut Airport Authority

Dear First Selectman Rose:

In May I sent you a letter informing you of an ongoing Environmental Assessment Project to evaluate existing obstructions that penetrate the federally protected airspace at Windham Airport. As part of this project, the Connecticut Airport Authority (CAA) in conjunction with the Federal Aviation Administration (FAA) is reviewing the potential environmental impacts to install pole-mounted red obstruction beacons in these areas.

No actual tree removal or construction activities are pending at this time. Maps outlining the obstructions and possible locations for the beacons are located on the project website. The web address is: <http://windhamairport.caa-analysis.com/>.

Several properties in your Town have been identified as potentially serving as a location for the access route to the beacon site or a location for the installation of the beacon. As a result, the study requires a CAA consultant, Clough Harbour & Associates (CHA), to conduct visual reviews of the subject areas. In many instances, the field personnel will conduct their review from the public right-of-way; however, personnel may find it necessary to briefly enter private property to determine appropriate access and observe site conditions in the fall of 2015. These personnel will all carry proper identification (see attached). A list of affected properties is attached for your reference.

Should you have any questions or concerns regarding the field observation, please contact Jean Loewenstein with CHA. Ms. Loewenstein can be reached at (518) 453-8771 or via email at jloewenstein@chacompanies.com.

Sincerely,

A handwritten signature in dark ink, appearing to read 'Kevin A. Dillon', is written over the printed name.

Kevin A. Dillon, A.A.E.
Executive Director



June 31, 2015

RE: Windham Airport
Environmental Assessment for Obstruction Removal and Lighting
Affected Property Address:

Dear Property Owner:

The Connecticut Airport Authority (CAA) has conducted a detailed study to evaluate existing obstructions that penetrate the federally protected airspace. These obstructions are primarily trees located near runway ends or located on small hills surrounding the Airport. As a follow-up study, the CAA is reviewing the potential environmental impacts of tree removal, and selective clearing and/or thinning in areas that contain airspace obstructions.

To accomplish this, the CAA is conducting an Environmental Assessment (EA) under federal and state procedures to identify affected properties and any potential environmental issues of removing trees and/or installing a pole-mounted red obstruction lights. No actual tree removal or construction activities are pending at this time; just the required evaluation. A map of the existing tree obstruction areas is included. As more information becomes available it will be posted on the following website: <http://windhamairport.caa-analysis.com/>.

Your property has been identified as potentially having an obstruction that penetrates the federally protected airspace. As a result of the possible obstruction, the study requires a CAA contractor, Clough Harbour Associates (CHA) to conduct visual reviews of the subject areas. In many instances the field personnel will conduct their review from the public right-of-way; however in certain instances personnel may find it necessary to briefly enter private property to observe trees and site conditions in the summer and fall of 2015. These personnel will all carry proper identification.

Should you have any questions or concerns regarding the field observation, please contact Jean Loewenstein with CHA. She can be reached at (518) 453-8771 or via email at rloewenstein2@chacompanies.com.

Sincerely,

Robert J. Bruno
Director of Planning, Engineering and Environmental
Connecticut Airport Authority

Loewenstein, Jean

From: Loewenstein, Jean
Sent: Friday, October 09, 2015 9:36 AM
To: 'Tim Saternow'
Cc: Martelle Sr, Jeremy
Subject: RE: Environmental Assessment for Obstruction Removal and Lighting Letter

Good morning Mr. Saternow,

Thank you for your interest in the Environmental Assessment being conducted by the CAA. In regards to the potential for beacon installation, the CAA is only conducting an Environmental Assessment (EA) under federal and state procedures to identify affected properties and any potential environmental issues of removing trees and/or installing a pole-mounted red obstruction lights at this time. No tree removal or construction activities are pending. The letter you received is intended to inform you of the ongoing assessment and to alert you that personnel may find it necessary to make visual inspections on or near your property.

The mapping represents a preliminary evaluation of potential affected parcels. We have alerted our field staff to your email and concerns and they will review as needed. Once the results of this required evaluation is reviewed and approved by the FAA, a separate project would be initiated to conduct any construction activities.

If you have any additional questions please do not hesitate to contact me.

Jean Loewenstein, AICP

Senior Planner

CHA ~ *design/construction solutions*

518.453.8771

jloewenstein@chacompanies.com

www.chacompanies.com

Follow us on [Twitter](#), [LinkedIn](#), and [Facebook](#)!



Please consider the environment before you print this email.

From: Tim Saternow [mailto:tim.saternow@gmail.com]
Sent: Thursday, October 08, 2015 8:19 PM
To: Loewenstein, Jean <RLoewenstein2@chacompanies.com>
Subject: Environmental Assessment for Obstruction Removal and Lighting Letter

Dear Mr. Lowenstien,

I have just received a letter from Robert J. Bruno concerning the Environmental Assessment for Obstruction Removal and Lighting and notice that my property at 310 Mansfield City Road might make a good location for pole mounted red obstruction beacons.

I'm a little confused by this letter. Is this a done deal with no chance of review?

My property is just 50' wide and full of trees. Could I request that the CAA look a few feet north of my property. It's a large piece of open farm land. And just directly south of me is the easement for the huge power lines that cut through this part of Connecticut.

Both of these neighboring properties are of higher elevation than my property and they are already clear of trees.

Will the field observation be able to confirm my observations?

Thank you.

Sincerely,

Tim Saternow

PS: My property will soon be sold. Please direct any future letters to:

310 Mansfield City Road
Mansfield Center, CT 06250

Loewenstein, Jean

From: Loewenstein, Jean
Sent: Monday, August 10, 2015 10:19 AM
To: 'carol.person12@yahoo.com'
Subject: Windham Airport Tree Removal and Lighting

Good Morning Carol,

This is regarding the ongoing environmental assessment study for obstruction removal and lighting. Currently the CAA is only conducting a study of the potential environmental issues of removing trees and/or installing pole mounted obstruction lights, no actual work will occur as part of this study. This study must be approved by the FAA and any physical work to be completed would occur under another project. You would be contacted if the FAA determined that trees would need to be removed from your property.

As stated in the letter, in most instances field personnel will be able to complete their work from the public Right of Way. If you have additional questions or concerns please do not hesitate to call me at the number below. I am in the office every day this week. I tried to contact you earlier this morning but did not reach you.

Finally if you do not want anyone on your property we will inform field personnel.

Thanks,

Jean Loewenstein, AICP

Senior Planner

CHA ~ *design/construction solutions*

518.453.8771

jloewenstein@chacompanies.com

www.chacompanies.com

Follow us on [Twitter](#), [LinkedIn](#), and [Facebook](#)!



Please consider the environment before you print this email.

Loewenstein, Jean

From: Person, Carol (RIS-HBE) <carol.person@lexisnexis.com>
Sent: Friday, August 07, 2015 3:58 PM
To: Loewenstein, Jean
Subject: Windham Airport - tree removal and lighting

Jean
I am Carol Person, my husband and I received a letter in July that our property has been identified as potentially having an obstructions that penetrates the airspace.

I would like to set up some time with you to discuss this and exactly what this means. I am not expecting that anyone will be coming on our property without proper notice. Let me know when we can chat in the next couple of weeks.

Look forward to speaking to you.

Thanks

Carol
Carol Person
559 North Windham Rd
North Windham, CT 06256

860-450-1888
carol.person12@yahoo.com

----- The information contained in this e-mail message is intended only for the personal and confidential use of the recipient(s) named above. This message may be an attorney-client communication and/or work product and as such is privileged and confidential. If the reader of this message is not the intended recipient or an agent responsible for delivering it to the intended recipient, you are hereby notified that you have received this document in error and that any review, dissemination, distribution, or copying of this message is strictly prohibited. If you have received this communication in error, please notify us immediately by e-mail, and delete the original message.

COMMENT FORM

**Environmental Assessment & Environmental Impact Evaluation
for Obstruction Removal
Windham Airport**

Public Information Meeting (March 29, 2016)

Name: (optional) Ann Durnack (Joshua's Land Trust)

Address: _____

Email: adurnack@charter.net

Telephone: 860-228-3992

Date: 3/28/2016

Comment(s): The Atlantic White Cedar Bog is a very
rare and sensitive environment/habitat.
The utmost care must be taken to min-
imize any impact on this habitat throughout
this project.

Comments can be submitted on this form or through <http://windhamairport.caa-analysis.com/>

Loewenstein, Jean

To: Loewenstein, Jean
Subject: RE: Windham Airport Tree Cutting

From: Loewenstein, Jean
Sent: Thursday, March 16, 2017 12:09 PM
To: Loewenstein, Jean <RLoewenstein2@chacompanies.com>
Subject: FW: Windham Airport Tree Cutting

From: Corey Sipe [<mailto:coreys@thechronicle.com>]
Sent: Wednesday, April 20, 2016 7:53 PM
To: Environmental <environmental@ctairports.org>
Subject: Windham Airport Tree Cutting

Mr. Bruno,

I am curious as to whether a determination has been made of how many trees would need to be cut down as a result of the off-airport tree removal project.

Specifically, I'd like to find out how that would impact Natchaug State Forest, Mansfield State Forest, Air Line Trail and other public areas.

Corey Sipe
The Chronicle

CONFIDENTIALITY NOTICE: This e-mail transmission (and any attachments accompanying it) is privileged, confidential and intended only for the individual(s) or entity named. If you or your office is not the intended recipient, the dissemination, distribution or copying of this communication is strictly prohibited. If you have received this transmission in error, please notify us immediately by reply e-mail and destroy all copies of this transmission. Thank You.

APPENDIX C

THREATENED & ENDANGERED SPECIES DOCUMENTATION

Connecticut Airport Authority - Windham Airport

IPaC Trust Resource Report

Generated September 17, 2015 01:27 PM MDT



US Fish & Wildlife Service

IPaC Trust Resource Report



Project Description

NAME

Connecticut Airport Authority -
Windham Airport

PROJECT CODE

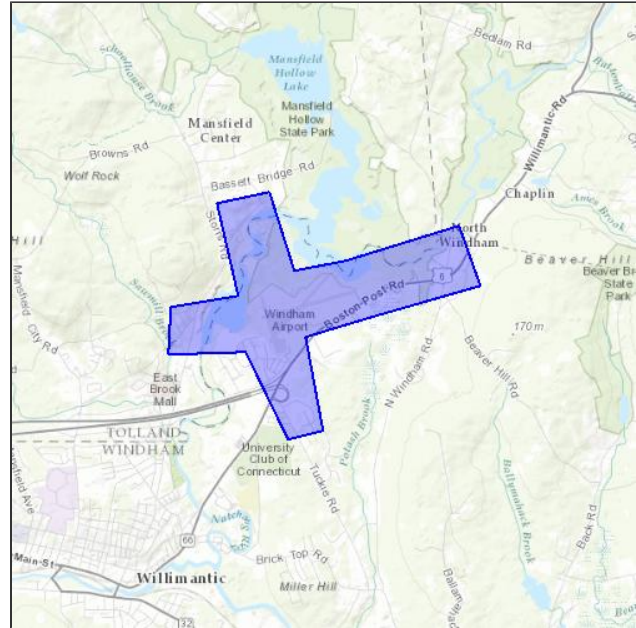
VFERF-G56IB-FRBGC-7JDZU-LKXRAU

LOCATION

Tolland and Windham counties,
Connecticut

DESCRIPTION

Environmental Assessment for
Obstruction Removal and Lighting



U.S. Fish & Wildlife Contact Information

Species in this report are managed by:

New England Ecological Services Field Office

70 Commercial Street, Suite 300

Concord, NH 03301-5094

(603) 223-2541

Endangered Species

Proposed, candidate, threatened, and endangered species that are managed by the [Endangered Species Program](#) and should be considered as part of an effect analysis for this project.

This unofficial species list is for informational purposes only and does not fulfill the requirements under [Section 7](#) of the Endangered Species Act, which states that Federal agencies are required to "request of the Secretary of Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action." This requirement applies to projects which are conducted, permitted or licensed by any Federal agency.

A letter from the local office and a species list which fulfills this requirement can be obtained by returning to this project on the IPaC website and requesting an Official Species List from the regulatory documents section.

Mammals

Northern Long-eared Bat *Myotis septentrionalis*

Threatened

CRITICAL HABITAT

No critical habitat has been designated for this species.

<https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=A0JE>

Critical Habitats

Potential effects to critical habitat(s) within the project area must be analyzed along with the endangered species themselves.

There is no critical habitat within this project area

Migratory Birds

Birds are protected by the [Migratory Bird Treaty Act](#) and the Bald and Golden Eagle Protection Act.

Any activity which results in the take of migratory birds or eagles is prohibited unless authorized by the U.S. Fish and Wildlife Service ([1](#)). There are no provisions for allowing the take of migratory birds that are unintentionally killed or injured.

You are responsible for complying with the appropriate regulations for the protection of birds as part of this project. This involves analyzing potential impacts and implementing appropriate conservation measures for all project activities.

American Oystercatcher <i>Haematopus palliatus</i>	Bird of conservation concern
Season: Breeding https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?scode=B0G8	
American Bittern <i>Botaurus lentiginosus</i>	Bird of conservation concern
Season: Breeding https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?scode=B0F3	
Bald Eagle <i>Haliaeetus leucocephalus</i>	Bird of conservation concern
Year-round https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?scode=B008	
Black-billed Cuckoo <i>Coccyzus erythrophthalmus</i>	Bird of conservation concern
Season: Breeding https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?scode=B0HI	
Blue-winged Warbler <i>Vermivora pinus</i>	Bird of conservation concern
Season: Breeding	
Canada Warbler <i>Wilsonia canadensis</i>	Bird of conservation concern
Season: Breeding	
Fox Sparrow <i>Passerella iliaca</i>	Bird of conservation concern
Season: Wintering	
Least Bittern <i>Ixobrychus exilis</i>	Bird of conservation concern
Season: Breeding	
Pied-billed Grebe <i>Podilymbus podiceps</i>	Bird of conservation concern
Year-round	
Prairie Warbler <i>Dendroica discolor</i>	Bird of conservation concern
Season: Breeding	
Purple Sandpiper <i>Calidris maritima</i>	Bird of conservation concern
Season: Wintering	
Rusty Blackbird <i>Euphagus carolinus</i>	Bird of conservation concern
Season: Wintering	
Short-eared Owl <i>Asio flammeus</i>	Bird of conservation concern
Season: Wintering https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?scode=B0HD	

Upland Sandpiper *Bartramia longicauda***Bird of conservation concern**

Season: Breeding

<https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0HC>**Wood Thrush** *Hylocichla mustelina***Bird of conservation concern**

Season: Breeding

Worm Eating Warbler *Helmitheros vermivorum***Bird of conservation concern**

Season: Breeding

Refuges

Any activity proposed on [National Wildlife Refuge](#) lands must undergo a 'Compatibility Determination' conducted by the Refuge. If your project overlaps or otherwise impacts a Refuge, please contact that Refuge to discuss the authorization process.

Refuge data is unavailable at this time.

Wetlands

Impacts to [NWI wetlands](#) and other aquatic habitats from your project may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal Statutes.

Project proponents should discuss the relationship of these requirements to their project with the Regulatory Program of the appropriate [U.S. Army Corps of Engineers District](#).

DATA LIMITATIONS

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

DATA EXCLUSIONS

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tubercid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

DATA PRECAUTIONS

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

Wetland data is unavailable at this time.

Species List for NDDB Request: Windham

Scientific Name	Common Name	State Status
Freshwater Community - Other Classification		
Acidic atlantic white cedar basin swamp	<null>	
Invertebrate Animal		
Alasmidonta varicosa	Brook floater	E
Apamea burgessi	Apamea moth	SC
Callophrys henrici	Henry's elfin	SC
Callophrys irus	Frosted elfin	T
Chaetagnathaea cerata	Noctuid moth	SC
Chlosyne harrisii	Harris' checkerspot	SC*
Erynnis brizo	Sleepy duskywing	T
Erynnis horatius	Horace's duskywing	SC
Erynnis horatius	Horace's duskywing	SC
Euchlaena madusaria	Scrub euchlaena	SC
Eucrotopocnemis fimbriaris	Noctuid moth	SC
Gomphus adelphus	Mustached clubtail	T
Hetaerina americana	American rubyspot	T
Lepidolys perscripta	Noctuid moth	SC
Margaritifera margaritifera	Eastern pearl shell	SC
Schinia septentrionalis	Northern Flower Moth	Proposed as T
Schinia spinosae	Noctuid moth	SC
Zale obliqua	Noctuid moth	SC
Zanclognatha martha	Noctuid moth	T
Terrestrial Community - Other Classification		
Sand barren		<null>

E = Endangered, T = Threatened, SC = Special Concern, * Extirpated

Scientific Name	Common Name	State Status
Vascular Plant		
Platanthera flava var. herbiola	Pale green orchid	SC
Vertebrate Animal		
Aegolius acadicus	Northern saw-whet owl	SC
Ammodramus savannarum	Grasshopper sparrow	E
Eremophila alpestris	Horned lark	E
Falco sparverius	American kestrel	T
Glyptemys insculpta	Wood turtle	SC
Heterodon platirhinos	Eastern hognose snake	SC
Passerculus sandwichensis	Savannah sparrow	SC
Sturnella magna	Eastern meadowlark	SC
Sylvilagus transitionalis	New England Cottontail	Federal Candidate
Thamnophis sauritus	Eastern ribbon snake	SC
Vermivora chrysoptera	Golden-winged warbler	E



U.S. Department
of Transportation
**Federal Aviation
Administration**

Federal Aviation Administration
New England Region

12 New England Executive Park
Burlington, MA 01803

December 6, 2016

Thomas Chapman
U.S. Fish and Wildlife Service
New England Field Office
70 Commercial Street, Suite 300
Concord, NH 03301

Dear. Mr. Chapman:

The Connecticut Airport Authority proposes the removal of trees in the vicinity of several airports, in an effort to promote safe use of these airports. The Federal Aviation Administration may fund these tree removal projects.

The FAA has determined the tree clearing project is unlikely to adversely affect the northern long-eared bat (*Myotis septentrionalis*), and submits the attached Streamline Consultation Forms for USFWS review.

Please do not hesitate to contact this office if you have any questions on this matter. Thank you.

Sincerely,

Richard P. Doucette
Manager of Environmental Programs
FAA New England Region, Airports Division

Northern Long-Eared Bat 4(d) Rule Streamlined Consultation Form

Federal agencies should use this form for the optional streamlined consultation framework for the northern long-eared bat (NLEB). This framework allows federal agencies to rely upon the U.S. Fish and Wildlife Service's (USFWS) January 5, 2016, intra-Service Programmatic Biological Opinion (BO) on the final 4(d) rule for the NLEB for section 7(a)(2) compliance by: (1) notifying the USFWS that an action agency will use the streamlined framework; (2) describing the project with sufficient detail to support the required determination; and (3) enabling the USFWS to track effects and determine if re-initiation of consultation is required per 50 CFR 402.16.

This form is not necessary if an agency determines that a proposed action will have no effect to the NLEB or if the USFWS has concurred in writing with an agency's determination that a proposed action may affect, but is not likely to adversely affect the NLEB (i.e., the standard informal consultation process). Actions that may cause prohibited incidental take require separate formal consultation. Providing this information does not address section 7(a)(2) compliance for any other listed species.

Information to Determine 4(d) Rule Compliance:	YES	NO
1. Does the project occur wholly outside of the WNS Zone ¹ ?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2. Have you contacted the appropriate agency ² to determine if your project is near known hibernacula or maternity roost trees?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3. Could the project disturb hibernating NLEBs in a known hibernaculum?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4. Could the project alter the entrance or interior environment of a known hibernaculum?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
5. Does the project remove any trees within 0.25 miles of a known hibernaculum at any time of year?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
6. Would the project cut or destroy known occupied maternity roost trees, or any other trees within a 150-foot radius from the maternity roost tree from June 1 through July 31.	<input type="checkbox"/>	<input checked="" type="checkbox"/>

You are eligible to use this form if you have answered yes to question #1 **or** yes to question #2 **and** no to questions 3, 4, 5 and 6. The remainder of the form will be used by the USFWS to track our assumptions in the BO.

Agency and Applicant³

Mr. Richard Doucette, Environmental Program Manager, Airports Division

USDOT Federal Aviation Administration – New England Region

(781) 238-7613

richard.doucette@faa.gov

¹ <http://www.fws.gov/midwest/endangered/mammals/nleb/pdf/WNSZone.pdf>

² See <http://www.fws.gov/midwest/endangered/mammals/nleb/nhisites.html>

³ If applicable - only needed for federal actions with applicants (e.g., for a permit, etc.) who are party to the consultation.

Project Name: *Windham Airport Tree Obstruction Removal*

Project Location: *Windham, CT 41° 44' 39" N 072° 10' 49" W*

Basic Project Description (provide narrative below or attach additional information):

The proposed action includes removal of trees on and surrounding the Windham Airport that penetrate the federally-defined airport airspace. The project included an alternative evaluation to determine the critical areas of tree removal necessary to maintain a safe operating environment. The proposed removal includes both tree clearing and selective thinning of tall trees, with retention of stumps and undergrowth. For the purposes of this form, all areas of removal will be included in the estimate of 'forest conversion'. The tree obstructions removal at the Windham Airport includes approximately 140 acres. These estimates are conservative; it is likely the final acreage of forest conversion will be less.

All removals will occur between December and March; there is no forest conversion between April through October or June through July.

All removals are for safety purposes and to satisfy Federal Aviation Administration (FAA) standards. None of these removals are for the purposes of timber harvest.

General Project Information	YES	NO
Does the project occur within 0.25 miles of a known hibernaculum?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Does the project occur within 150 feet of a known maternity roost tree?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Does the project include forest conversion ⁴ ? (if yes, report acreage below)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Estimated total acres of forest conversion	140 acres	
If known, estimated acres ⁵ of forest conversion from April 1 to October 31	0 acres	
If known, estimated acres of forest conversion from June 1 to July 31 ⁶	0 acres	
Does the project include timber harvest? (if yes, report acreage below)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Estimated total acres of timber harvest		
If known, estimated acres of timber harvest from April 1 to October 31		
If known, estimated acres of timber harvest from June 1 to July 31		
Does the project include prescribed fire? (if yes, report acreage below)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Estimated total acres of prescribed fire		
If known, estimated acres of prescribed fire from April 1 to October 31		
If known, estimated acres of prescribed fire from June 1 to July 31		
Does the project install new wind turbines? (if yes, report capacity in MW below)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Estimated wind capacity (MW)		

Agency Determination:

By signing this form, the action agency determines that this project may affect the NLEB, but that any resulting incidental take of the NLEB is not prohibited by the final 4(d) rule.

⁴ Any activity that temporarily or permanently removes suitable forested habitat, including, but not limited to, tree removal from development, energy production and transmission, mining, agriculture, etc. (see page 48 of the BO).

⁵ If the project removes less than 10 trees and the acreage is unknown, report the acreage as less than 0.1 acre.

⁶ If the activity includes tree clearing in June and July, also include those acreage in April to October.

If the USFWS does not respond within 30 days from submittal of this form, the action agency may presume that its determination is informed by the best available information and that its project responsibilities under 7(a)(2) with respect to the NLEB are fulfilled through the USFWS January 5, 2016, Programmatic BO. The action agency will update this determination annually for multi-year activities.

The action agency understands that the USFWS presumes that all activities are implemented as described herein. The action agency will promptly report any departures from the described activities to the appropriate USFWS Field Office. The action agency will provide the appropriate USFWS Field Office with the results of any surveys conducted for the NLEB. Involved parties will promptly notify the appropriate USFWS Field Office upon finding a dead, injured, or sick NLEB.

Signature: _____

Date Submitted: _____

APPENDIX D

SUMMARY OF PUBLIC MEETING

CHRONICLE PRINTING CO.
P. O. BOX 148
WILLIMANTIC CT 06226

ORDER CONFIRMATION

Salesperson: CAROL BENDER

Printed at 03/08/16 09:38 by cldre

Acct #: 10

Ad #: 143082

Status: N

PREPAID LEGALS

Start: 03/10/2016 Stop: 03/21/2016

Times Ord: 2

Times Run: ***

LEG 2.00 X 3.71 Words: 111

Total LEG 7.42

Rate: LEG

Cost: 352.46

Class: 0005 LEGAL NOTICES

Contact:

Phone: (860)423-8466

Fax#: (000)000-0000

Email:

Agency:

Descript: LEGAL NOTICE WINDHAM AIR

Given by: *

Created: cldre 03/08/16 08:59

Last Changed: cldre 03/08/16 09:02

PUB ZONE ED TP START INS STOP SMTWTFS
CHR A 97 S 03/10,21

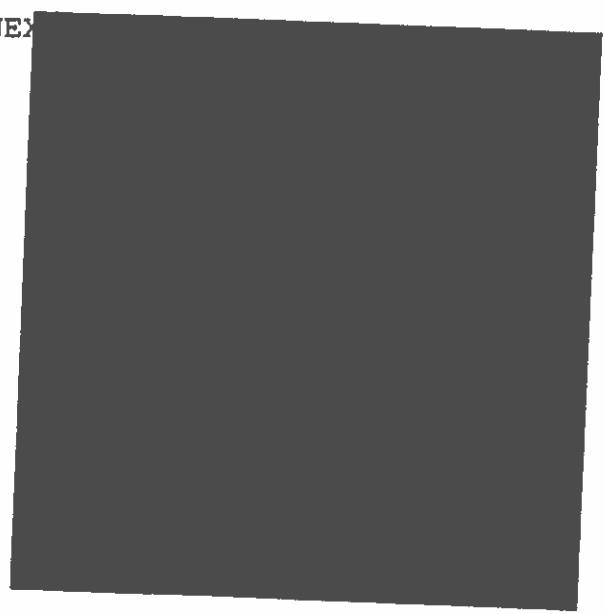
AUTHORIZATION

Under this agreement rates are subject to change with 30 days notice. In the event of a cancellation before schedule completion, I understand that the rate charged will be based upon the rate for the number of insertions used.

Name (print or type)

Name (signature)

(CONTINUED ON NEXT PAGE)



CHRONICLE PRINTING CO.
P. O. BOX 148
WILLIMANTIC CT 06226

ORDER CONFIRMATION (CONTINUED)

Salesperson: CAROL BENDER

Printed at 03/08/16 09:38 by cldre

Acct #: 10

Ad #: 143082

Status: N

Legal Notice

**Windham Airport Environmental
Assessment for Tree Clearing
and Lighting.
Notice of Public Information
Meeting**

NOTICE IS HEREBY GIVEN that the Connecticut Airport Authority (CAA) will be holding a Public Information Meeting for the Windham Airport Environmental Assessment for Tree Clearing and Lighting. At this meeting, information on the overall project and the study's findings, including the Preferred Alternative, will be presented. The meeting will be held on Tuesday, March 29 at the Mansfield Public Library in the Buchanan Auditorium (55 Warrentonville Road, Mansfield Center, CT 06250), doors open at 6:30PM with the presentation beginning at 7:00PM. The Environmental Assessment for Tree Clearing and Lighting will be available at <http://windhamairport.caa-analysis.com/>.

(860) 887-9211 • 66 Franklin Street, Norwich, CT 06360

Advertising Fax: 860-887-1949

Receipt

Account Number:

Order Number: 00210610

Salesperson: Seidl | **Printed on:** 3/8/2016

Telephone: | **Fax:**

STEPHANIE PARSONS
CHA CONSULTING
3 WINNERS CIRCLE
ALBANY, NY 12205
(518)453-4500

Title: Norwich Bulletin | **Class:** 900 Legals

Start date: 3/9/2016 | **Stop date:** 3/23/2016 |

Insertions: 2 | **Lines:** 25.78 ag

<p style="text-align: center;">LEGAL NOTICE Notice of Public Information Meeting Windham Airport Environmental Assessment for Tree Clearing and Lighting</p> <p>NOTICE IS HEREBY GIVEN that the Connecticut Airport Authority (CAA) will be holding a Public Information Meeting for the Windham Airport Environmental Assessment for Tree Clearing and Lighting. At this meeting, information on the overall project and the study's findings, including the Preferred Alternative, will be presented. The meeting will be held on Tuesday, March 29 at the Mansfield Public Library in the Buchanan Auditorium (55 Warrenton Road: Mansfield Center, CT 06250), doors open at 6:30PM with the presentation beginning at 7:00PM. The Environmental Assessment for Tree Clearing and Lighting will be available at http://windhamairport.caa-analysis.com/.</p>

Payment Information

Total Order Price: \$289.18

Payment Type: MasterCard | **Exp:** 06/2019





The Bulletin
www.NorwichBulletin.com

Employment

FIND A JOB



To advertise call 860-889-3363

or email classified@norwichbulletin.com

Mon.-Fri. 8:30am-5:00pm



Child & Family Agency
of Southeastern Connecticut, Inc.
It's About Children

COMMUNITY WORKER

Part time position available in our Teen Outreach Program (TOP), which is a teen pregnancy prevention program, conducted out of the New London Middle School. This candidate will work as a partnership to facilitate a class for the students in the school.

Interested candidates can send resume to:
Human Resources, Child & Family Agency,
255 Hempstead Street, New London, CT 06320, or email to: HR@childandfamilyagency.org AA/EOE.
For more information about our agency please visit our website at www.childandfamilyagency.org

KROPP ENVIRONMENTAL CONTRACTORS IS HIRING FOR AN EXPERIENCED FULLTIME ENVIRONMENTAL ENGINEER

The qualified candidate will provide overall support for site remediation activities; ensure that all control, monitoring, record keeping, and reporting requirements related to the project responsibilities are satisfied. The Engineer interacts with clients, agencies, consulting firms and contractors. Specific job duties include responsibilities in all aspects of site remediation including but not limited to: establishing and maintaining system groundwater confinement and hydrocarbon recovery systems; managing and directing

facility and offsite vapor intrusion studies and conducting remedial investigations; reviewing technical data for interpretation and reporting. A Bachelor's Degree in Engineering Science is required. Minimum of 2 years relevant environmental experience will be considered. Experience with remediation regulations and requirements for the remediation of contaminated sites is preferred. Excellent interpersonal skills are required. Ability to write reports, business correspondence and procedure manuals is required.

Qualified candidates should forward a resume to farrah@kroppenvironmental.com



QUIKRETE IS HIRING!

The Quikrete® Companies, Wauregan CT, a leading producer of packaged concrete and related products is hiring

**MAINTENANCE MECHANIC • MAINTENANCE ELECTRICIAN
SHIPPING/FORK TRUCK OPERATORS • PRODUCTION OPERATORS
PRODUCTION SUPERVISOR • MACHINE OPERATOR • CDLA DRIVERS**

We offer competitive wages, health/life insurance, 401K, paid vacation and holidays.

Send resume via:
E-mail to gbarlow@quikrete.com, or
fax (860) 564-1874

apply in person at:
Quikrete Companies,
526 Green Hollow Rd,
Wauregan, CT 06387 • EOE



Come Join Our Team!

District Sales Manager – The Bulletin, owned by GateHouse Media, is looking for a Top-Notch District Sales manager to join our Consumer Marketing Department.

We need a dynamic leader with a passion for customer service! If you have an entrepreneurial spirit and a can-do attitude... we want to talk to you. The schedule for this position requires early morning hours, Saturday thru Wednesday 1:00 am to 10:00 am and reliable transportation.

Position responsibilities include:

- Contract a group of Independent Contractors who deliver newspapers throughout Windham County. Distribution center is located in Plainfield.
 - Increase the subscriber base by providing quality service while implementing sales and retention initiatives to maximize route penetration.
 - Compensation includes: Competitive base salary, monthly bonus and mileage reimbursement.
- Please email cover letter, resume and salary expectations to tmacino@norwichbulletin.com. No phone calls please.



Searching For A home?



Where To Start?
We Can Help!

New Homes
Condos
Rentals
Foreclosures
Open Houses

We have the tools and the resources you need.

HomeFinder
Now on
Norwich Bulletin

Where homes and people find each other.

Legals

Starts Here Starts Here

900 Legals 900 Legals

State of Connecticut Superior Court, Juvenile Matters Order of Notice
NOTICE TO: Timothy Marcotte,
DOB: 08/10/1975
of parts unknown
A petition has been filed seeking: Commitment of minor child(ren) of the above named or vesting of custody and care of said child(ren) of the above named in a lawful, private or public agency or a suitable and worthy person.

The petition, whereby the court's decision can affect your parental rights, if any, regarding minor child(ren) will be heard on: 3/30/2016 at 10:30 a.m. at 71 Main Street, Danbury, CT 06810.
Hearing on an Order of Temporary Custody will be heard on 3/9/16 at 9:30 a.m., at 71 Main Street, Danbury, CT 06810.

Therefore, ORDERED, that notice of the hearing of this petition be given by publishing this Order of Notice once, immediately upon receipt, in **The Bulletin**, 10 Railroad Place, Norwich, CT 06360, a newspaper having a circulation in the town/city of Norwich, CT

Dated 3/3/2016
Hon Kevin Randolph M. Clay, Asst. Clerk

Right to Counsel: Upon proof of inability to pay for a lawyer, the court will make sure that an attorney is provided to you by the Chief Public Defender. Request for an attorney should be made immediately in person, by mail, or by fax at the court office where your hearing is to be held.

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

900 Legals

Antiques & Collectibles

CASH PAID: For Antiques, guitars, room \$1,000 + utility. Silver, Gold, Old Toys & Sec. 860-887-4095

Household Goods

FURN. Sets: Hendraden Sq. Walnut and tables w/ glass top \$150/ea. Matching sofa \$500. Glass top w/ coffee table, gold frame & legs \$150. Lg. trad. style hunter green Italian leather sofa & chair \$1700. Antique doll bed \$175. Chandelier NEW Gold leaf w/ black shades \$500. Maple bench w/ cushion \$125. All items in excellent cond. Hand-made cradle \$200. Colonial style high-chair \$50. Call 860-922-9081

Auctions & Flea Markets

EAST HARTFORD: Indoor/Outdoor Flea Market, 141 Piedmont Park Rd. We will be open Sat. 3/26 8-3. CLOSED EASTERN SUNDAY. Starting in April, open Saturdays & Sundays 8-3. For vendor spaces call Kim at 860-798-8500.

Misc. For Sale

ARBORVITAE SPRING SALE: Green giants or emeralds, beautiful privacy borders. FREE delivery and planting. Starting @ \$59 (860)712-5359 or www.cttrees.com

Wanted To Buy

CASH PAID: Vintage Electronics, Guitars, Amps, Pk & Vac Tube Audio, All Radios, Hi-Fi Stereo, CBs, 860-707-9350

Rentals - Apartments

TAFTHVILLE: 4 bed Antiques, guitars, room \$1,000 + utility. Silver, Gold, Old Toys & Sec. 860-887-4095

For Sale Homes

All Real Estate advertised in this newspaper is subject to the State and Federal Fair Housing Acts which makes it illegal to advertise any preference, limitation, or discrimination on basis of race, color, religion, sex, national origin, handicap, marital status, age, lawful source of income, and sexual orientation. This newspaper, knowingly accept any advertising for real estate which is in violation of the law.

CARS Starts Here

PUBLIC AUCTION 23 April 2016 10AM @ AAAA-1 SELF STORAGE 21 Terminal Way, Norwich, CT 06360 860-889-4466 All items stored in Delinquency

Recreational Vehicles

TRAVEL TRAILER: 2012 Starcraft Aft-One 1984ft. Exc. Cond. Many extras. \$9200.00. Call for details 860-983-6146

Automotive Accessories

Boy's Used

Vehicles Wanted

CT SCRAP: Will buy your scrap steel, copper, & aluminum. \$3. Per cwt. Rd. Uncls. 860-548-3366

HOMES Starts Here

Rentals - Apartments

MOOSUP: Modern 2 bedroom \$730/mo + sec. Call for details (860)564-3706

RECYCLING:

will buy your junk cars, trucks & trailers. Pick-up available. 860-928-7165

RECYCLING:

will buy your junk cars, trucks & trailers. Pick-up available. 860-928-7165

RECYCLING:

will buy your junk cars, trucks & trailers. Pick-up available. 860-928-7165

RECYCLING:

will buy your junk cars, trucks & trailers. Pick-up available. 860-928-7165

RECYCLING:

will buy your junk cars, trucks & trailers. Pick-up available. 860-928-7165

RECYCLING:

will buy your junk cars, trucks & trailers. Pick-up available. 860-928-7165

RECYCLING:

will buy your junk cars, trucks & trailers. Pick-up available. 860-928-7165

RECYCLING:

will buy your junk cars, trucks & trailers. Pick-up available. 860-928-7165

RECYCLING:

will buy your junk cars, trucks & trailers. Pick-up available. 860-928-7165

RECYCLING:

will buy your junk cars, trucks & trailers. Pick-up available. 860-928-7165

RECYCLING:

will buy your junk cars, trucks & trailers. Pick-up available. 860-928-7165

RECYCLING:

will buy your junk cars, trucks & trailers. Pick-up available. 860-928-7165

RECYCLING:

will buy your junk cars, trucks & trailers. Pick-up available. 860-928-7165

RECYCLING:

will buy your junk cars, trucks & trailers. Pick-up available. 860-928-7165

RECYCLING:

will buy your junk cars, trucks & trailers. Pick-up available. 860-928-7165

RECYCLING:

will buy your junk cars, trucks & trailers. Pick-up available. 860-928-7165

Antiques & Collectibles

CASH PAID: For Antiques, guitars, room \$1,000 + utility. Silver, Gold, Old Toys & Sec. 860-887-4095

Household Goods

FURN. Sets: Hendraden Sq. Walnut and tables w/ glass top \$150/ea. Matching sofa \$500. Glass top w/ coffee table, gold frame & legs \$150. Lg. trad. style hunter green Italian leather sofa & chair \$1700. Antique doll bed \$175. Chandelier NEW Gold leaf w/ black shades \$500. Maple bench w/ cushion \$125. All items in excellent cond. Hand-made cradle \$200. Colonial style high-chair \$50. Call 860-922-9081

Auctions & Flea Markets

EAST HARTFORD: Indoor/Outdoor Flea Market, 141 Piedmont Park Rd. We will be open Sat. 3/26 8-3. CLOSED EASTERN SUNDAY. Starting in April, open Saturdays & Sundays 8-3. For vendor spaces call Kim at 860-798-8500.

Misc. For Sale

ARBORVITAE SPRING SALE: Green giants or emeralds, beautiful privacy borders. FREE delivery and planting. Starting @ \$59 (860)712-5359 or www.cttrees.com

Wanted To Buy

CASH PAID: Vintage Electronics, Guitars, Amps, Pk & Vac Tube Audio, All Radios, Hi-Fi Stereo, CBs, 860-707-9350

Rentals - Apartments

TAFTHVILLE: 4 bed Antiques, guitars, room \$1,000 + utility. Silver, Gold, Old Toys & Sec. 860-887-4095

For Sale Homes

All Real Estate advertised in this newspaper is subject to the State and Federal Fair Housing Acts which makes it illegal to advertise any preference, limitation, or discrimination on basis of race, color, religion, sex, national origin, handicap, marital status, age, lawful source of income, and sexual orientation. This newspaper, knowingly accept any advertising for real estate which is in violation of the law.

CARS Starts Here

PUBLIC AUCTION 23 April 2016 10AM @ AAAA-1 SELF STORAGE 21 Terminal Way, Norwich, CT 06360 860-889-4466 All items stored in Delinquency

Recreational Vehicles

TRAVEL TRAILER: 2012 Starcraft Aft-One 1984ft. Exc. Cond. Many extras. \$9200.00. Call for details 860-983-6146

Automotive Accessories

Boy's Used

Vehicles Wanted

CT SCRAP: Will buy your scrap steel, copper, & aluminum. \$3. Per cwt. Rd. Uncls. 860-548-3366

HOMES Starts Here

Rentals - Apartments

MOOSUP: Modern 2 bedroom \$730/mo + sec. Call for details (860)564-3706

RECYCLING:

will buy your junk cars, trucks & trailers. Pick-up available. 860-928-7165

RECYCLING:

will buy your junk cars, trucks & trailers. Pick-up available. 860-928-7165

RECYCLING:

will buy your junk cars, trucks & trailers. Pick-up available. 860-928-7165

RECYCLING:

will buy your junk cars, trucks & trailers. Pick-up available. 860-928-7165

Antiques & Collectibles

CASH PAID: For Antiques, guitars, room \$1,000 + utility. Silver, Gold, Old Toys & Sec. 860-887-4095

Household Goods

FURN. Sets: Hendraden Sq. Walnut and tables w/ glass top \$150/ea. Matching sofa \$500. Glass top w/ coffee table, gold frame & legs \$150. Lg. trad. style hunter green Italian leather sofa & chair \$1700. Antique doll bed \$175. Chandelier NEW Gold leaf w/ black shades \$500. Maple bench w/ cushion \$125. All items in excellent cond. Hand-made cradle \$200. Colonial style high-chair \$50. Call 860-922-9081

Auctions & Flea Markets

EAST HARTFORD: Indoor/Outdoor Flea Market, 141 Piedmont Park Rd. We will be open Sat. 3/26 8-3. CLOSED EASTERN SUNDAY. Starting in April, open Saturdays & Sundays 8-3. For vendor spaces call Kim at 860-798-8500.

Misc. For Sale

ARBORVITAE SPRING SALE: Green giants or emeralds, beautiful privacy borders. FREE delivery and planting. Starting @ \$59 (860)712-5359 or www.cttrees.com

Wanted To Buy

CASH PAID: Vintage Electronics, Guitars, Amps, Pk & Vac Tube Audio, All Radios, Hi-Fi Stereo, CBs, 860-707-9350

Rentals - Apartments

TAFTHVILLE: 4 bed Antiques, guitars, room \$1,000 + utility. Silver, Gold, Old Toys & Sec. 860-887-4095

For Sale Homes

All Real Estate advertised in this newspaper is subject to the State and Federal Fair Housing Acts which makes it illegal to advertise any preference, limitation, or discrimination on basis of race, color, religion, sex, national origin, handicap, marital status, age, lawful source of income, and sexual orientation. This newspaper, knowingly accept any advertising for real estate which is in violation of the law.

CARS Starts Here

PUBLIC AUCTION 23 April 2016 10AM @ AAAA-1 SELF STORAGE 21 Terminal Way, Norwich, CT 06360 860-889-4466 All items stored in Delinquency

Recreational Vehicles

TRAVEL TRAILER: 2012 Starcraft Aft-One 1984ft. Exc. Cond. Many extras. \$9200.00. Call for details 860-983-6146

Automotive Accessories

Boy's Used

Vehicles Wanted

CT SCRAP: Will buy your scrap steel, copper, & aluminum. \$3. Per cwt. Rd. Uncls. 860-548-3366

HOMES Starts Here

Rentals - Apartments

MOOSUP: Modern 2 bedroom \$730/mo + sec. Call for details (860)564-3706

RECYCLING:

will buy your junk cars, trucks & trailers. Pick-up available. 860-928-7165

RECYCLING:

will buy your junk cars, trucks & trailers. Pick-up available. 860-928-7165

RECYCLING:

will buy your junk cars, trucks & trailers. Pick-up available. 860-928-7165

RECYCLING:

will buy your junk cars, trucks & trailers. Pick-up available. 860-928-7165

Antiques & Collectibles

CASH PAID: For Antiques, guitars, room \$1,000 + utility. Silver, Gold, Old Toys & Sec. 860-887-4095

Household Goods

FURN. Sets: Hendraden Sq. Walnut and tables w/ glass top \$150/ea. Matching sofa \$500. Glass top w/ coffee table, gold frame & legs \$150. Lg. trad. style hunter green Italian leather sofa & chair \$1700. Antique doll bed \$175. Chandelier NEW Gold leaf w/ black shades \$500. Maple bench w/ cushion \$125. All items in excellent cond. Hand-made cradle \$200. Colonial style high-chair \$50. Call 860-922-9081

Auctions & Flea Markets

EAST HARTFORD: Indoor/Outdoor Flea Market, 141 Piedmont Park Rd. We will be open Sat. 3/26 8-3. CLOSED EASTERN SUNDAY. Starting in April, open Saturdays & Sundays 8-3. For vendor spaces call Kim at 860-798-8500.

Misc. For Sale

ARBORVITAE SPRING SALE: Green giants or emeralds, beautiful privacy borders. FREE delivery and planting. Starting @ \$59 (860)712-5359 or www.cttrees.com

Wanted To Buy

CASH PAID: Vintage Electronics, Guitars, Amps, Pk & Vac Tube Audio, All Radios, Hi-Fi Stereo, CBs, 860-707-9350

Rentals - Apartments

TAFTHVILLE: 4 bed Antiques, guitars, room \$1,000 + utility. Silver, Gold, Old Toys & Sec. 860-887-4095

For Sale Homes

All Real Estate advertised in this newspaper is subject to the State and Federal Fair Housing Acts which makes it illegal to advertise any preference, limitation, or discrimination on basis of race, color, religion, sex, national origin, handicap, marital status, age, lawful source of income, and sexual orientation. This newspaper, knowingly accept any advertising for real estate which is in violation of the law.

CARS Starts Here

PUBLIC AUCTION 23 April 2016 10AM @ AAAA-1 SELF STORAGE 21 Terminal Way, Norwich, CT 06360 860-889-4466 All items stored in Delinquency

Recreational Vehicles

TRAVEL TRAILER: 2012 Starcraft Aft-One 1984ft. Exc. Cond. Many extras. \$9200.00. Call for details 860-983-6146

Automotive Accessories

Boy's Used

Vehicles Wanted

CT SCRAP: Will buy your scrap steel, copper, & aluminum. \$3. Per cwt. Rd. Uncls. 860-548-3366

HOMES Starts Here

Rentals - Apartments

MOOSUP: Modern 2 bedroom \$730/mo + sec. Call for details (860)564-3706

RECYCLING:

will buy your junk cars, trucks & trailers. Pick-up available. 860-928-7165

RECYCLING:

will buy your junk cars, trucks & trailers. Pick-up available. 860-928-7165

RECYCLING:

will buy your junk cars, trucks & trailers. Pick-up available. 860-928-7165

RECYCLING:

will buy your junk cars, trucks & trailers. Pick-up available. 860-928-7165

Antiques & Collectibles

CASH PAID: For Antiques, guitars, room \$1,000 + utility. Silver, Gold, Old Toys & Sec. 860-887-4095

Household Goods

FURN. Sets: Hendraden Sq. Walnut and tables w/ glass top \$150/ea. Matching sofa \$500. Glass top w/ coffee table, gold frame & legs \$150. Lg. trad. style hunter green Italian leather sofa & chair \$1700. Antique doll bed \$175. Chandelier NEW Gold leaf w/ black shades \$500. Maple bench w/ cushion \$125. All items in excellent cond. Hand-made cradle \$200. Colonial style high-chair \$50. Call 860-922-9081

Auctions & Flea Markets

EAST HARTFORD: Indoor/Outdoor Flea Market, 141 Piedmont Park Rd. We will be open Sat. 3/26 8-3. CLOSED EASTERN SUNDAY. Starting in April, open Saturdays & Sundays 8-3. For vendor spaces call Kim at 860-798-8500.

Misc. For Sale

ARBORVITAE SPRING SALE: Green giants or emeralds, beautiful privacy borders. FREE delivery and planting. Starting @ \$59 (860)712-5359 or www.cttrees.com

Wanted To Buy

CASH PAID: Vintage Electronics, Guitars, Amps, Pk & Vac Tube Audio, All Radios, Hi-Fi Stereo, CBs, 860-707-9350

Rentals - Apartments

TAFTHVILLE: 4 bed Antiques, guitars, room \$1,000 + utility. Silver, Gold, Old Toys & Sec. 860-887-4095

For Sale Homes

All Real Estate advertised in this newspaper is subject to the State and Federal Fair Housing Acts which makes it illegal to advertise any preference, limitation, or discrimination on basis of race, color, religion, sex, national origin, handicap, marital status, age, lawful source of income, and sexual orientation. This newspaper, knowingly accept any advertising for real estate which is in violation of the law.

CARS Starts Here

PUBLIC AUCTION 23 April 2016 10AM @ AAAA-1 SELF STORAGE 21 Terminal Way, Norwich, CT 06360 860-889-4466 All items stored in Delinquency

Recreational Vehicles

TRAVEL TRAILER: 2012 Starcraft Aft-One 1984ft. Exc. Cond. Many extras. \$9200.00. Call for details 860-983-6146

Automotive Accessories

Boy's Used

Vehicles Wanted

CT SCRAP: Will buy your scrap steel, copper, & aluminum. \$3. Per cwt. Rd. Uncls. 860-548-3366

HOMES Starts Here

Rentals - Apartments

MOOSUP: Modern 2 bedroom \$730/mo + sec. Call for details (860)564-3706

RECYCLING:

will buy your junk cars, trucks & trailers. Pick-up available. 860-928-7165

RECYCLING:

will buy your junk cars, trucks & trailers. Pick-up available. 860-928-7165

RECYCLING:

will buy your junk cars, trucks & trailers. Pick-up available. 860-928-7165

RECYCLING:

will buy your junk cars, trucks & trailers. Pick-up available. 860-928-7165

Antiques & Collectibles



Summary

Project: Environmental Assessment (EA) & Environmental Impact Evaluation (EIE) for Obstruction Removal - Windham Airport (IJD)

Location: Mansfield Public Library – Buchannan Auditorium

Meeting: Public Information Meeting #1

Date: March 29, 2016 – 6:30 p.m.

Summary:

A public information meeting (PIM) for the Environmental Assessment & Environmental Impact Evaluation for Obstruction Removal - Windham Airport (IJD) was held at the Mansfield Public Library on March 29, 2016 at 6:30 p.m. The meeting presentation outlined the overarching purpose of the EA and EIE, which is to promote safety by bringing the airport into compliance with Federal Aviation Administration (FAA) design standards and regulations regarding clear airspace as well as the process of identifying and evaluation potential obstructions. The study documents potential impacts of tree obstruction removal, includes trees both on and off the airport, satisfies the requirements of the National Environmental Policy Act (NEPA) and Connecticut Environmental Policy Act (CEPA) and is consistent with applicable FAA guidance.

Approximately 10 persons were in attendance, including the following representatives of the Airport.

Attendee	Affiliation
• Bob Bruno	Connecticut Airport Authority
• Colin Goegel	Connecticut Airport Authority
• Barry Pallanck	Windham Airport
• Sally Snyder	Connecticut Airport Authority
• Paul McDonnell	CHA (study consultant)
• Jean Loewenstein	CHA (study consultant)

The following is a summary of comments and questions discussed during the meeting:

- Comment/Question: An area adjacent to Route 6 near Runway 27 is higher in elevation than Runway 27 – will that be addressed? If so will the area be maintained (mowed)?
- Answer: Yes that area will be regraded (lowered) and reseeded.
- Comment/Question: How will tree removal/regrading adjacent to Route 6 impact drainage as it relates to White Cedar Swamp (Parcel 15, 16), a rare and sensitive habitat?
- Answer: There are no trees in this location, however coordination with DEEP will take place during design and prior to any work (regrading) so as to not impact this habitat. It is anticipated that State Permits will be required.

- **Comment/Question:** Are there any documented pitch pine areas within removal areas?
- **Answer:** We will review the report and confirm the presence of this vegetation.
- **Note:** The EA identifies a sand barren located intermittently between Runway 18 and 27. Pitch pine was not identified during the course of field work by FHI.

- **Comment/Question:** Is the clearing that occurred several years ago near the Levee part of this project?
- **Answer:** No, that area is owned by the Army Corps of Engineers; any work completed at that location would be completed at their direction.

- **Comment/Question:** The east end of Runway 27 is a dangerous area.
- **Answer:** Filling of wetlands is not part of this project.

- **Question:** When will removals occur?
- **Answer:** Removal will be part of a separate design/permitting project.

- **Comment/Question:** Were utility poles, buildings or other obstructions aside from trees identified in this study?
- **Answer:** There are some a topographical obstructions and utility line obstructions beyond the study limits that are not part of the preferred alternative. Only tree obstructions were identified under the preferred alternative.

Sign-In Sheet (Public Information Meeting)



PROJECT: Environmental Assessment & Environmental Impact Evaluation for Obstruction Removal at Windham Airport
LOCATION: Mansfield Public Library- Buchanan Auditorium
DATE: 03/29/2016

Name	Affiliation	Phone Number	Email (print clearly)
James Fingar	Town of Windham	860-465 3045	jfiger@windhamct.com
COLIN GOEGEL	CAA	860 254 5628	cgoegel@ctairports.org
Bob Bruu	CAA	860-254-5516	rbruu@ctairports.org
Linda Fawick	Town of Windham	860-429-3330	lfaulkner@windhamct.com
Ann Dunnack	Joshua's Trust	860.228-3992	adunnack@charter-net
PHILIP RUSCH	—	860-617-9005	phrusher52@gmail.com
Paul W. Stanton	Fitzgerald & Halladay Inc	860 305 3893	pstanton@fluplan.com
Steve Morfko	Wishford Resident	860-680-5728	smorfko@yahoo.com
Lisa Wade	New England Cultural Inst.	860-304-6184	lwade@cal.com

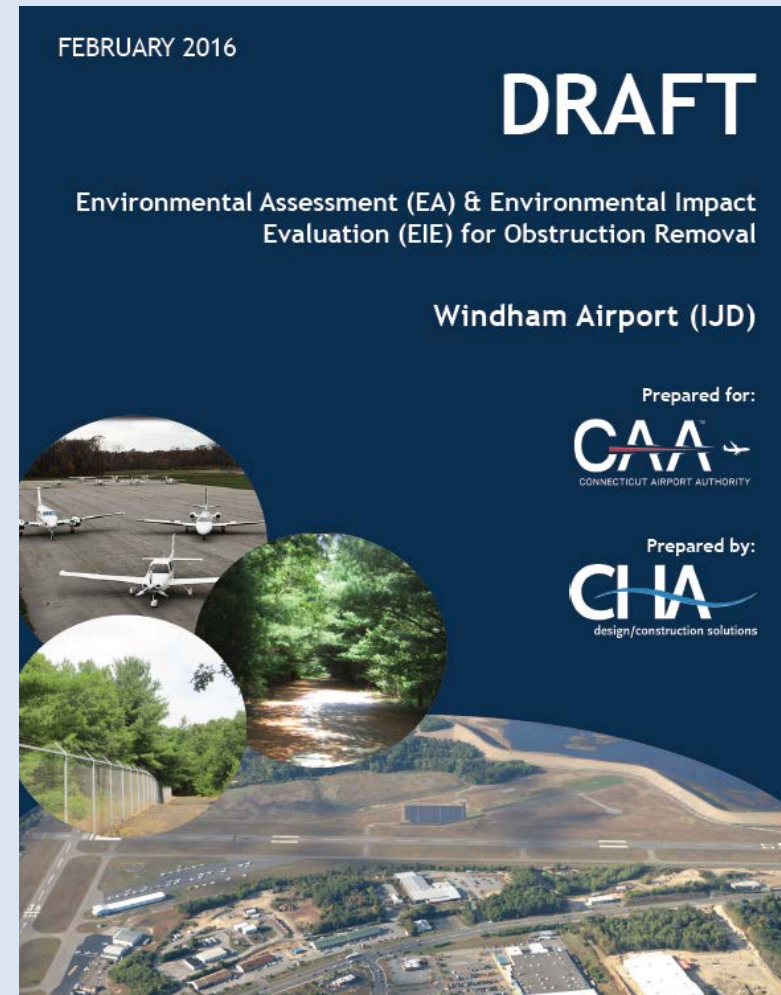
Windham Airport (IJD)

Environmental Assessment for Tree Obstruction Removal



Draft Environmental Assessment Report for Windham Airport

February 2016



Project Background

- The Environmental Assessment (EA) documents the potential impacts of tree obstruction removal at Windham Airport
- Include trees located on and off airport property
- Study satisfies both the National Environmental Policy Act (NEPA) and Connecticut Environmental Policy Act (CEPA)
- Consistent with FAA guidance:
 - Order 1050.1F – Environmental Impacts: Policies and Procedures
 - Order 5050.4B – NEPA Implementing Instructions for Airport Actions



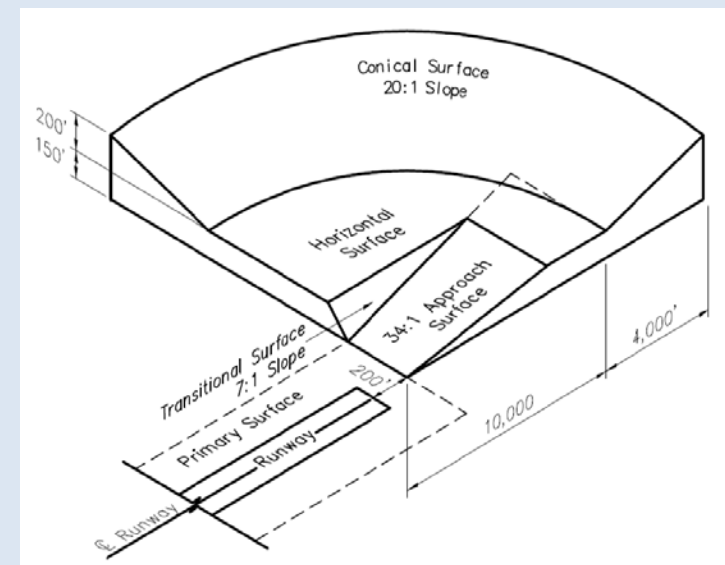
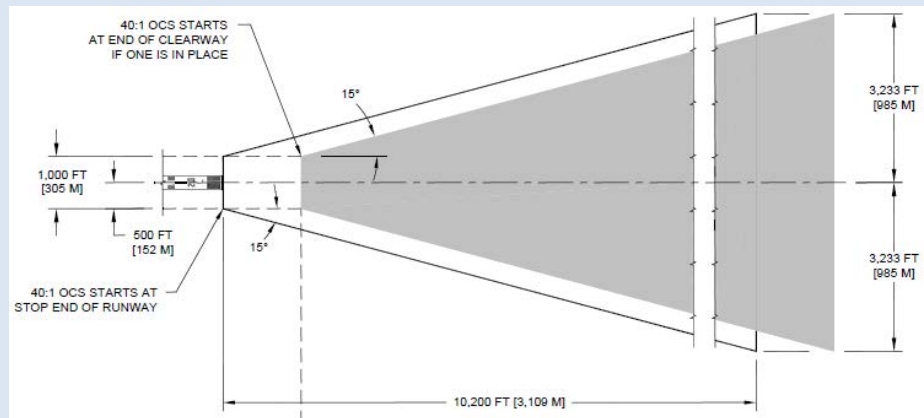
Project Background

- EA includes both on and off-airport obstruction removal

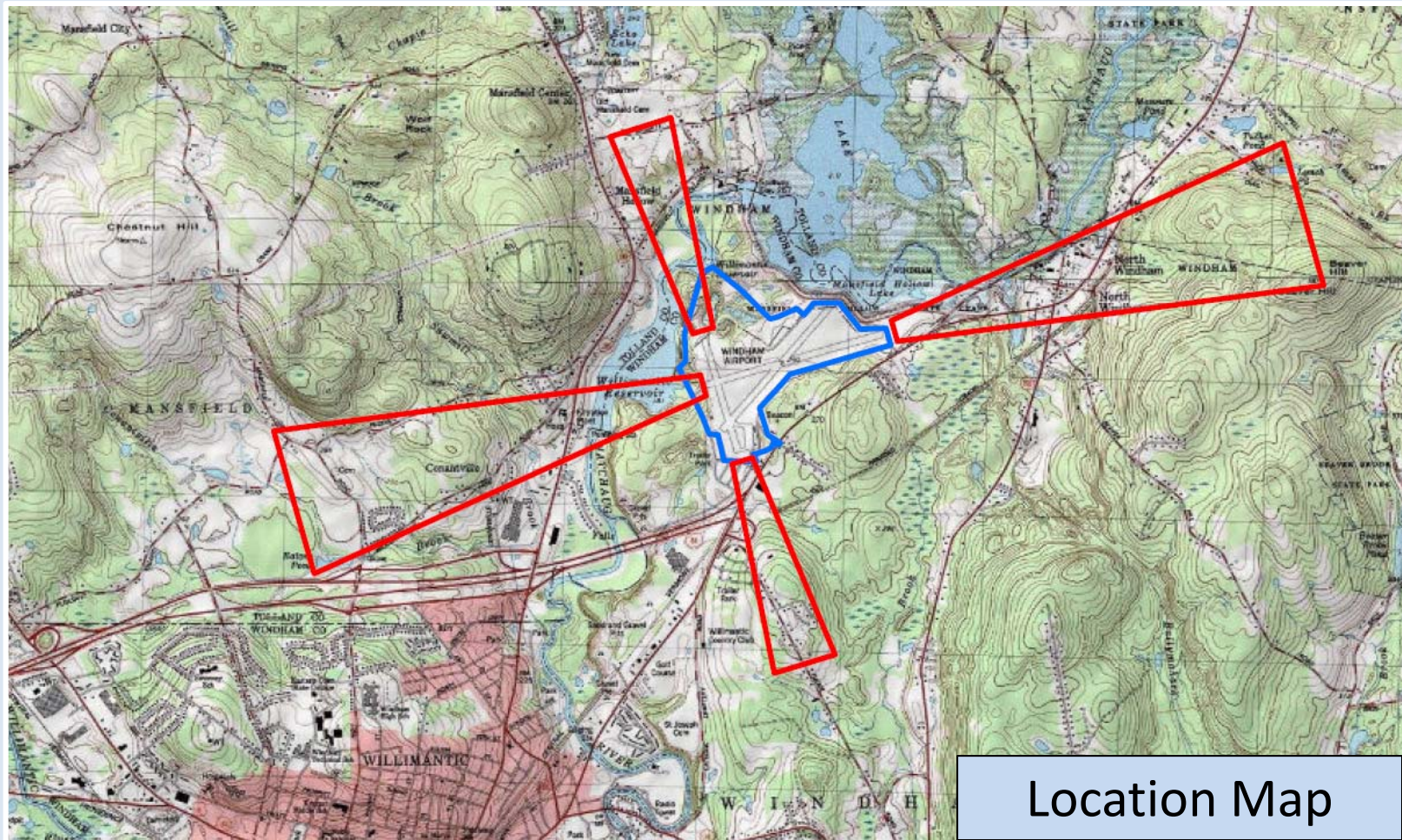


Project Background

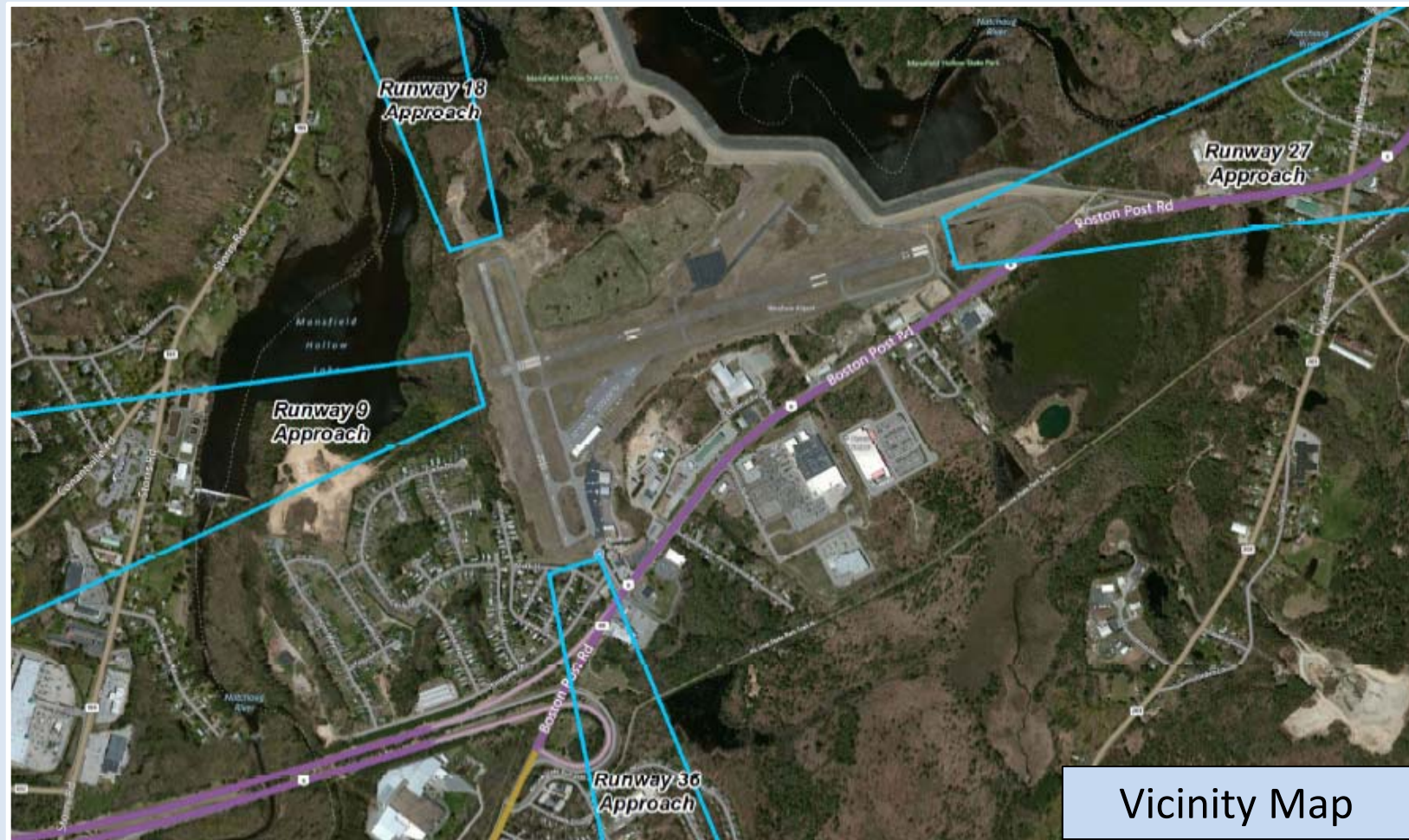
- Objects that penetrate the defined airspace are classified as obstructions, and should be removed to safely aircraft operations
- The EA addresses tree removal associated with:
 - Federal (i.e., FAR Part 77) Navigable Airspace
 - Terminal Instrument Procedures (TERPS)
 - **FAA Design Standards**



Project Background



Project Background



Purpose and Need

- Purpose:
 - Improve airport safety by removing tree obstructions (compliance with FAA design standards).
- Need:
 - FAA has established airspace and design criteria to provide for safe aircraft operations.
 - The 2012 airspace analysis identified existing safety deficiencies.
 - **The Airport is required to address the safety deficiencies to the extent feasible.**



Alternatives Analysis and Proposed Action

- No Action Alternative
- Full Obstruction Removal Alternative
- Modified Obstruction Removal Alternative

No Action Alternative

No Action Alternative	
Goal(s): This option minimizes impacts (no action is taken)	
Description: hazards would remain in place, and potentially increase in size and penetration with additional tree growth.	
Advantages	Disadvantages
<ul style="list-style-type: none">• No wetland impacts• No impacts to biological resources, habitats, or species of concern• No impacts to parks or recreation• No to property owners• No project costs	<ul style="list-style-type: none">• Retains hazards to airport users• Retains a hazard to people and property on the ground• Does not comply with FAA design standards• Risks future FAA funding

Full Obstruction Removal Alternative

Full Obstruction Removal Alternative	
Goal(s): Removes all penetrations to the FAR Part 77 Approach and Transitional Surfaces, with obstruction lighting for the Horizontal and Conical Surfaces.	
Description: A comprehensive removal of obstructions, with outer surfaces protected with lighting.	
Advantages	Disadvantages
<ul style="list-style-type: none">• Clears or lights all surfaces• Satisfies federal design standards• Comprehensive removal of hazards• Improves safety for people on the ground	<ul style="list-style-type: none">• Impacts to wetlands• Impacts to biological resources, habitats, or species of concern• Substantial coordination with property owners• The need for easements may prevent completion and extend schedule• High project costs• Success is questionable

Full Obstruction Removal Alternative



Full Obstruction Removal Alternative



Full Obstruction Removal Alternative



Modified Obstruction Removal Alternative

Modified Obstruction Removal Alternative	
Goal(s): Removes penetrations to minimum design standards.	
Description: A reduced removal alternative intended to clear the critical penetrations, while minimizing the impacts.	
Advantages	Disadvantages
<ul style="list-style-type: none">• Clears the critical obstructions• Satisfies federal design standards• Improves safety for people on the ground• Reduces environmental impacts• Reduces the number of affected properties• Reduces costs	<ul style="list-style-type: none">• Potential impacts to wetland, biological, habitat, or species of concern remain present• Easement are required with property owners• Less critical obstructions will remain• Outer surfaces are not addressed

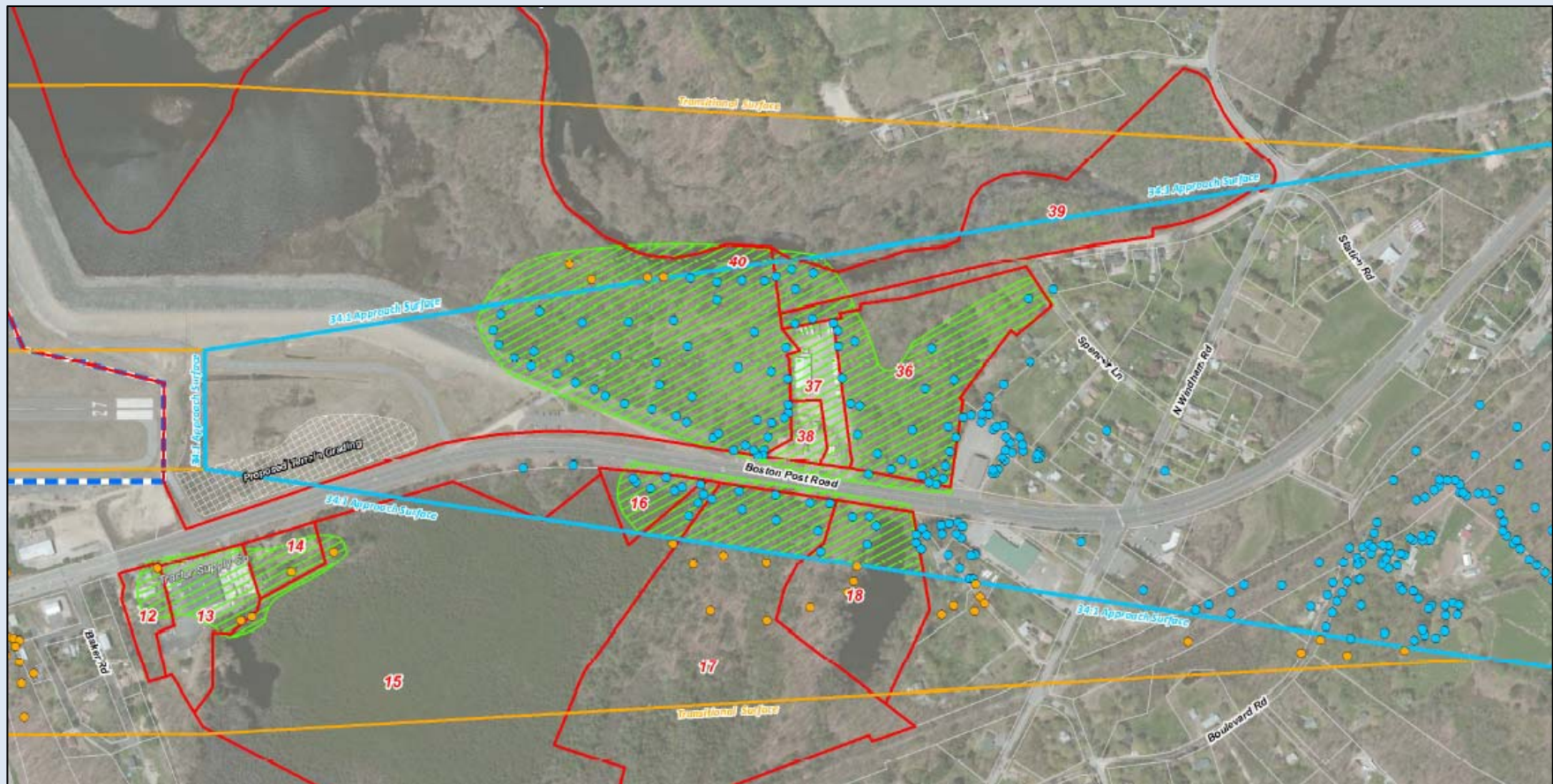
Runway 9



Runway 9



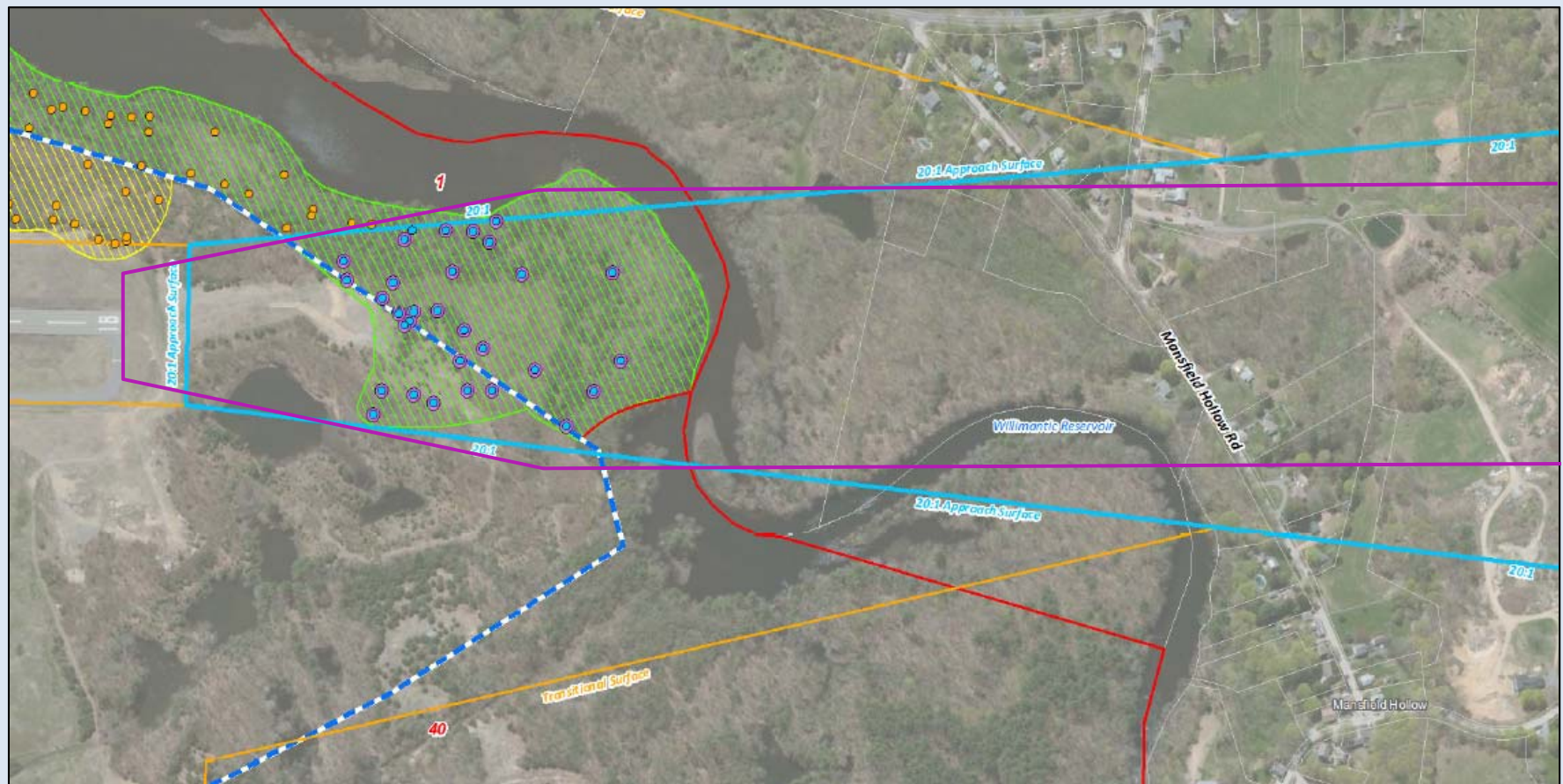
Runway 27



Runway 27



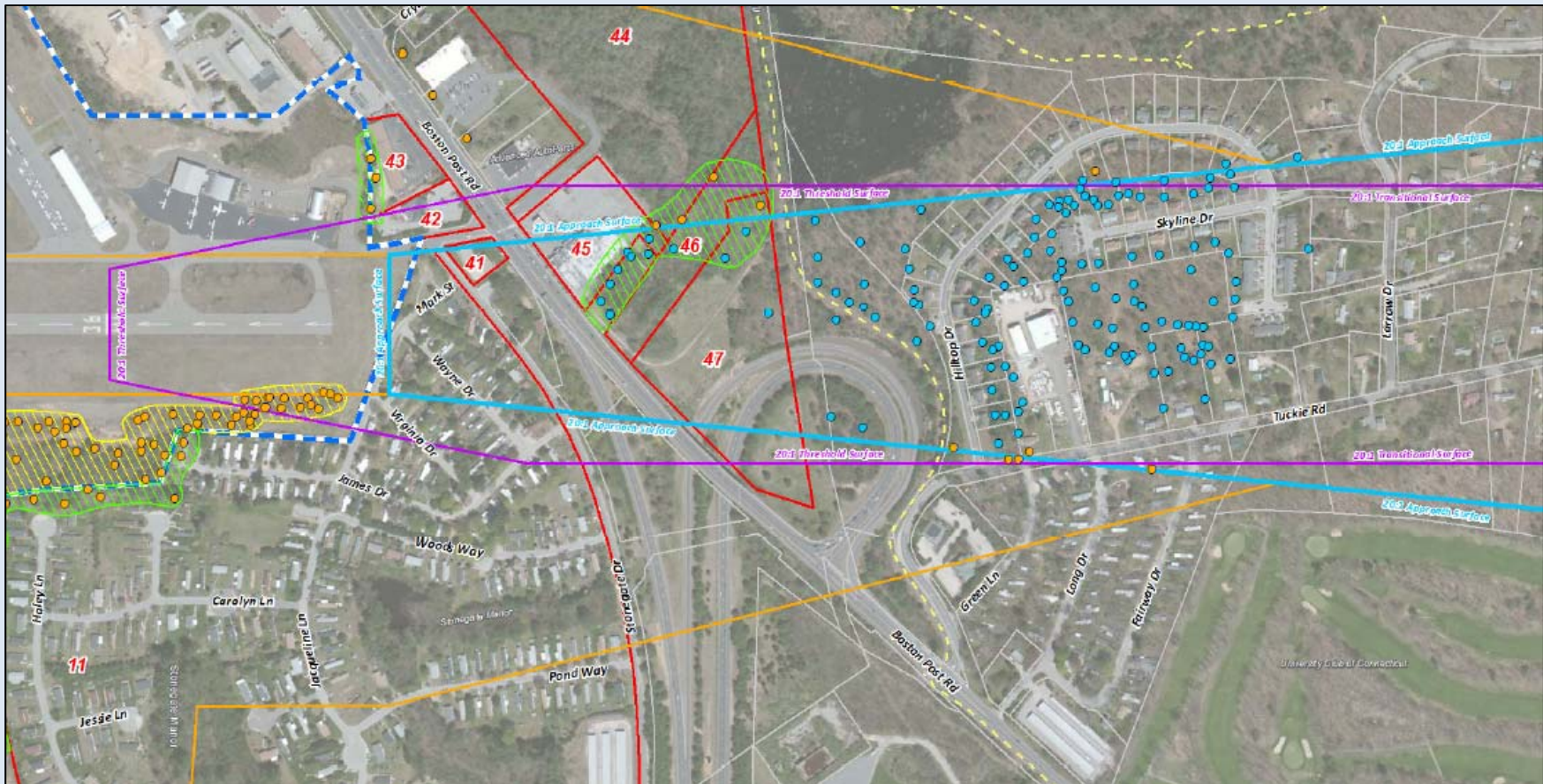
Runway 18



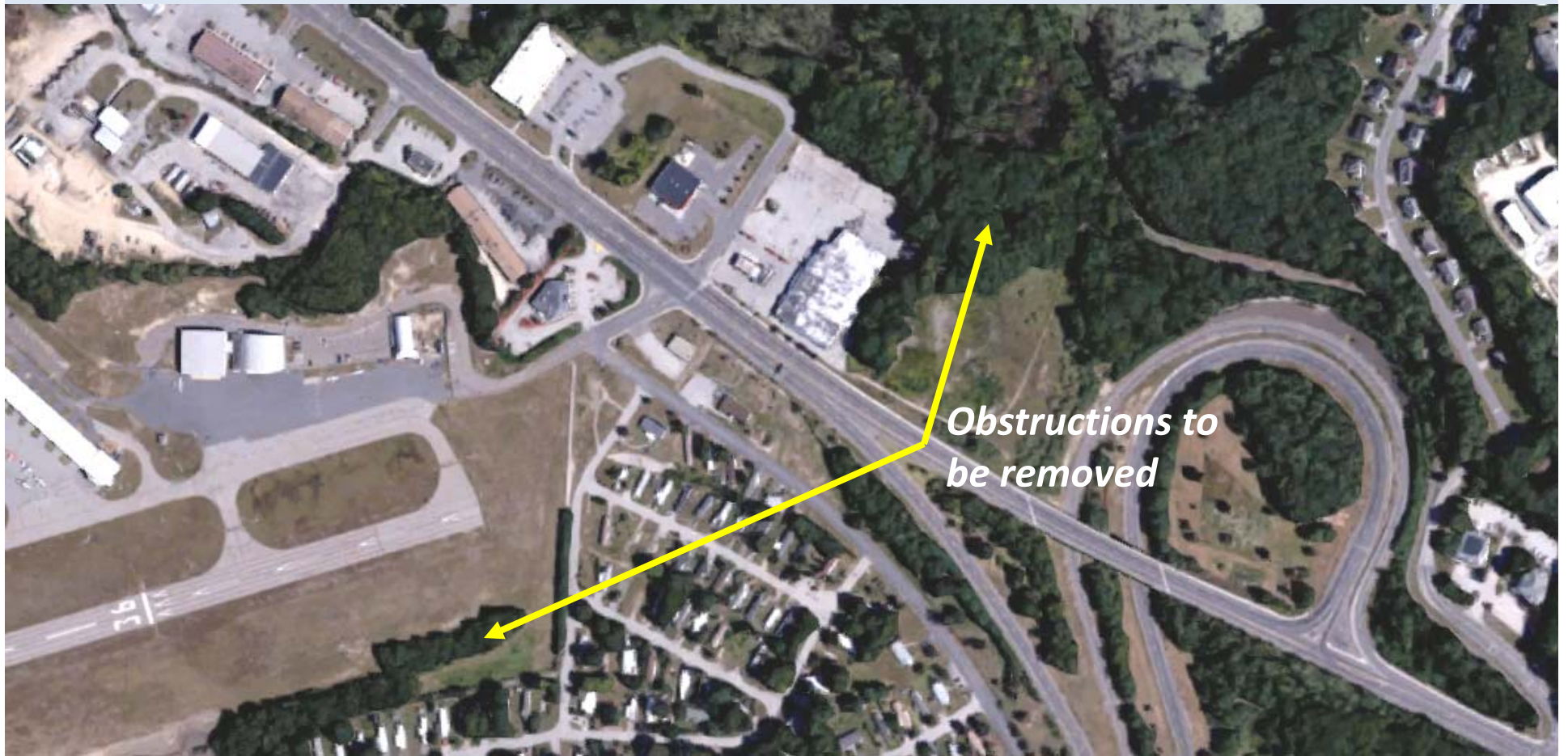
Runway 18



Runway 36



Runway 36



Recommended Alternative

Modified Obstruction Removal Alternative

- The CAA and FAA have identified this alternative as the most practical solution.
- Balances airport safety with environmental considerations, minimizing cost, and private property disturbance.

Recommended Alternative



Affected Environment & Environmental Consequences

Consistent with the FAA guidelines, the following impact categories addressed:

- Air Quality
- Compatible Land Use
- Construction Impacts
- Parks and Recreational Facilities (Section 4(f))
- Farmland
- Fish, Wildlife, and Plants
- Floodplains
- Hazardous Materials and Solid Waste
- Historical, Archeological and Cultural Resources
- Light Emissions and Visual
- Natural Resources and Energy Supply
- Noise
- Socioeconomic Impacts
- Water Quality
- Wetlands



Affected Environment & Environmental Consequences

- Key Issues Identified:
 - Parks and Recreation Facilities
 - Threatened & Endangered Species
 - Wetlands



Affected Environment & Environmental Consequences

- Parks and Recreation (publicly owned lands)
 - Impacts to publicly owned land requires approval
- Local Recreation Facilities
 - Mansfield Hollow State Park
 - Flood Control Levee Trail
 - Airline North State Park Trail
 - Natchaug State Forest



Affected Environment & Environmental Consequences

- Parks & Recreation Facilities (minimize impacts)
 - Selective thinning in Mansfield Hollow State Park & Natchaug State Forest
 - Minimize tree removal along State Park Trails
 - Tree removal will not change access or use



Affected Environment & Environmental Consequences

- Threatened and Endangered Species
 - Coordinated with CT DEEP and US Fish & Wildlife Service
 - Species of Concern:
 - Northern Goshawks: threatened
 - Northern Long-eared Bat: endangered/threatened
 - Migratory bird species
 - Habitat is Present



Affected Environment & Environmental Consequences

- Threatened and Endangered Species
 - Prior to any tree removal activities:
 - Biological survey may be required
 - Seasonal restrictions on cutting (winter removals)



Affected Environment & Environmental Consequences

- Wetlands

- Coordination with US Army Corps of Engineers - no federal permits anticipated
- Coordination with CT DEEP Inland Wetlands Resources Division- [State permits anticipated](#)
- Best management practices to avoid impacts
 - Winter removal to reduce impacts
 - Use of temporary mats
 - Use of non-mechanized cutting
 - Retain stumps and small trees
 - Leave cut trees in wetland



Study Information


*Please visit the
project website at:*

windhamairport.caa-analysis.com

Windham Airport (IJD)

Environmental Assessment (EA) for Obstruction Removal and Lighting


[Home](#)
[Project Meetings](#)
[Project Documents](#)
[Links](#)
[Contact](#)
[FAQ](#)



Project Information

The Connecticut Airport Authority (CAA) has conducted a detailed study to evaluate existing obstructions that penetrate the federally protected airspace. These obstructions are primarily trees located near runway ends or located on small hills surrounding the Airport. As a follow-up study, the CAA is reviewing the potential impacts of tree removal, and selective clearing and/or thinning in areas the area that contain airspace obstructions. Objects that penetrate these surfaces are classified as airspace obstructions, and should be removed to safely accommodate approaching and departing aircraft.

To accomplish this, the CAA is conducting an Environmental Assessment (EA) under federal and state




just the required evaluation.

This study is being performed by Clough Harbor Associates LLP (a subsidiary of CHA Consulting, Inc.). The study is being conducted for the Connecticut Airport Authority (CAA), referred to by the FAA as the "Sponsor." The lead agency for the EAs will be the Federal Aviation Administration (FAA).

***Project EIE Notice posted on CEQ
Environmental Monitor Online
Portal – March 22, 2016***

<http://www.ct.gov/ceq/site/default.asp>



March 22, 2016

2. Notice of Environmental Assessment for the Connecticut Airport Authority (CAA) – Off-Airport Tree Obstruction Removal at the Windham Airport

Municipality where project is proposed: Town of Windham.

Address of Possible Project Location: Airport Road, Windham, CT (off of US Route 6).

Project Description: Preparation of National Environmental Policy Act (NEPA) and Connecticut Environmental Policy Act (CEPA) environmental document as required to evaluate the potential impacts associated with tree obstruction removal in areas surrounding Windham Airport. The evaluation addresses tree obstruction removals associated with Federally-defined airspace surfaces surrounding the airport necessary for the continued safe operation of aircraft. Objects that penetrate these surfaces are classified as obstructions by the Federal Aviation Administration (FAA).

The project sponsoring agencies, the Connecticut Aviation Authority (CAA), and FAA have identified that trees penetrate the airspace at Windham Airport, including locations beyond the airport property boundaries. Per FAA practice, review of off-airport obstruction removal should be evaluated and documented via a NEPA Environmental Assessment (EA) and state CEPA Environmental Impact Evaluation (EIE). This project includes the identification of each affected property owner and associated parcels (both public and private) with anticipated obstruction removals.

Project Diagram: Project maps can be found at the following location:
<http://windhamairport.caa-analysis.com/project-documents/>

The EA/EIE can be viewed in person at:
Mansfield Public Library
55 Warrenville Road
Mansfield Center, CT 06250

The EA/EIE can also be found on the study website:
<http://windhamairport.caa-analysis.com/project-documents/>

Written comments on this EA/EIE will be accepted until the close of business on: **Monday, May 31, 2016.**

Written comments should be sent to:

Name: Mr. Robert J. Bruno, Director of Planning, Engineering, & Environmental
Agency: Connecticut Airport Authority
Address: 334 Ella Grasso Turnpike, Suite 160
Windsor Locks, CT 06096
Phone: (860) 254-5516
E-Mail: environmental@ctairports.org

The CAA is holding an informal **Public Information Meeting** on **Tuesday, March 29th 2016** from 7 to 9 PM, at the Mansfield Public Library in the Buchanan Auditorium (55 Warrenville Road, Mansfield Center, CT 06250). A formal public hearing has not been scheduled.

Questions and Comments?

Please provide comments by April 29th to:

Colin Goegel

Connecticut Airports Authority

334 Ella Grasso Turnpike, Suite 160

Windsor Locks, CT 06096

CGoegel@ctairports.org

windhamairport.caa-analysis.com



APPENDIX E

SUMMARY OF COMMENTS/RESPONSES

CT DEEP provided comments on the Draft EA/EIS for the above referenced project on May 31, 2016. CHA has prepared the responses below to address the subject comments. The responses include several clarifications regarding the alternatives to address DEEP questions, as well as concurrence to adhere to environmental and best practices. Many of the responses are related to activities that will occur in the future, during the design and permitting process.

For the convenience of the reader, both the comment and response are provided below.

Comment (3rd paragraph): We realize that detailed information on the extent of clearing may not be available at this time. As noted in our scoping comments for all 6 CAA airports, post-CEPA review by the multidisciplinary DEEP Property Management Review Team will be the appropriate forum to identify more specific mitigation measures for any project elements on DEEP property. Wetland permitting will serve a similar role for tree cutting within regulated areas. Additional information required for these review processes include specific extent of area to be cleared, methodology for tree removal, disposal of crowns, any treatment of stumps to prevent regrowth, access routes and staging areas.

Response: *Agreed. The design and permitting process for each location will provide detailed removal plans, access, methods, etc. The EA/EIE is intended to identify the overall project effort and potential impacts, prior to the implementation.*

Comment (4th paragraph): The text describing alternatives outlines the full and modified obstruction removal options, which appear to involve the same techniques, as noted on page 3-5, but which differ in the airspace surfaces used to define penetrations. The preferred alternative, modified obstruction removal, uses the 20:1 threshold surface for off-airport locations that would define fewer obstructions than the 34:1 approach surface. However, the figure depicting the Runway 27 end shows only the 34:1 approach surface and does not differentiate between approach surface and TERPS obstructions as in the Runway 9 and 18 figures. DEEP property at parcels 16, 18, 36 and 40 are all off the Runway 27 end. It appears that use of the steeper surface would require removal of fewer trees in these areas.

Response: *Correct, the full and modified obstruction removal alternatives involve the same techniques, but differ in the slope of the surface to clear, i.e., the type of “surfaces” as defined by the FAA to be protected. Furthermore, it is also correct that the full build alternative includes removal of penetrations to the approach surface, with a flatter 34:1 slope and more penetrations for Runways 9 and 27, than the steeper 20:1 threshold surface of the modified build alternative.*

Runway ends 9 and 36 have displaced thresholds, meaning the landing point is displaced from the physical end of the runway. For these runways the figures depict an approach surface based on the runway end, and a separate threshold surface based on the displaced threshold location.

Runway ends 18 and 27 do not have displaced thresholds, and the approach surface and threshold surface start at the same location (overlay each other), and differ primarily in their slope. For these figures, only one surface is shown on the illustration.

For Runway 27, it is correct that TERPS obstructions are not depicted in the illustration; however, tree clearing is still recommended in this unique case. This distinct recommendation for Runway 27 is due to the nature of the terrain. Although there are a substantial number of tree obstructions to the approach surface (blue dots). At the time of the obstruction survey, there were no threshold or TERPS surface penetrations (purple/magenta) dots. However, as the terrain beyond the runway end slopes up, and trees heights are very close to the 20:1 threshold surface, it is recommended that selective tree thinning is included in the EA/EIE. This will avoid the need for an additional

environmental evaluation for the Runway 27 end as trees grow. The shaded clearing area on each map is the preferred alternative, and is intended to proactively improve airport safety.

As tree heights are dynamic, it is impractical to conduct studies and complete removal projects only after trees exceed the threshold surfaces. For safety, it is important to prevent obstructions, as oppose to merely react to them after the fact. As such, the proposed action includes removal of existing penetrations to the threshold surfaces, as well as to some additional critical areas where future penetrations are likely. It is also correct that the steeper threshold surface reduces the recommended three removal area, including on DEEP parcels 16, 18, 36, and 40 in proximity to the runway end. On these parcels selective removal of the tallest trees (i.e., greatest penetrations) will be the goal of the removal project. During the design/permitting process, individual trees can be identified for removal to the extent practical.

Comment (5th paragraph): In addition, the figures depict different areas for ‘Tree Removal’ and ‘Selective Removal of Trees.’ The former is noted to involve retaining undergrowth and small trees and brush, which corresponds to the techniques listed on page 3-5. The text of the document does not discuss selective removal of trees, which presumably involves less impact in those areas. This should be clarified. Again, this pertains to DEEP property off the Runway 27 end.

Response: *The tree removal areas vs the selective removal areas are based on the relative number of obstructions within a given area. Areas identified for selective thinning will remove specific trees that are identified in the field as obstructions. In these locations, the survey data indicates that obstructions are limited to a few airspace penetrations. As such, only those trees are targeted for removal. Selective removal is used in areas that do not appear to require a substantial clearing effort, which reduces the potential impacts and project costs. The draft report refers to “remove all sizable trees.” In the field, this will involve flagging individual trees to be cut, or defining a tree height for removal, such as “remove all trees in area that are greater than 60 feet in height.*

Comment (6th paragraph): The figure for the Runway 9 end identifies a Tree Removal Area, not a Selective Removal Area, on the banks of the Willimantic Reservoir; the differential impact of this designation should be described. Although it is understood that depicted obstructions do not identify all trees to be removed, it appears that the TERPS obstructions are generally further away from the banks of the reservoir. Based on the EIE description, the preferred (modified obstruction removal) alternative would remove trees that are TERPS obstructions of the threshold surface but not trees that are approach surface obstructions. This should also be clarified.

Response: *Due to the sensitivity of reservoir/river to erosion & sedimentation, an area within 100 feet of the banks, and other locations with fewer penetrations may be treated at selective removal, with only critical trees penetrations being cut. See below.*

Also see responses above regarding clarification between tree removal vs selective tree removal.



Comment (7th paragraph): Overall, the EIE should outline specific criteria that will be utilized to identify tree obstructions slated for removal under the modified obstruction removal alternative in both ‘tree removal’ and ‘selective tree removal’ areas. The height of ‘sizable’ or ‘tall’ trees that would result in removal should be discussed. Perhaps, maps could be generated by using GIS data for ground elevation and threshold surface elevation that would depict the height of obstructions that would penetrate the threshold surface at various locations. It would be helpful if some rough of numbers of trees to be eliminated could be estimated.

Response: *The EA/EIE is intended to identify broad ‘worst case’ removals areas to improve safety. As tree heights are variable and change overtime, and height data accuracy is limited to the date of the survey acquisition. The identified ‘tree removal’ locations are intended to eliminate the need to determine the height and penetration of each tree, which is generally impractical. This is why in areas with numerous obstructions, the practical solution is to removal all trees, and leave only underbrush and vegetation under 10-15 feet in height. This also prevents the need for removal every few years as trees will continue to grow and penetrate the overlying surface.*

Within the “selective removal” areas, the removal plans/design will include GIS or similar data for determining the heights of trees to be removed. These area will be identified for removal of tree heights that are say 50-, 60-, 70-foot plus, and will consider the ground elevation and surface height. The design and permitting effort can provide a rough number of trees to be removed.

Comment (8th paragraph): The table describing the full obstruction removal alternative notes that outer surfaces are to be protected with lighting and the title of the document in the header, but not the cover, includes lighting. However, lighting is not mentioned in the table describing the preferred modified obstruction removal alternative. The absence of beacons or other lighting under the preferred alternative should be confirmed. Alternatively, if lighting is proposed, additional information regarding locations, construction techniques and potential impacts should be provided.

Response: *The preferred (modified) obstruction removal alternative does not include new obstruction beacons or towers. Existing or proposed electrical transmission lines may include obstruction lighting; however, such activities are included in the required evaluation of the transmission line by the Siting Commission, not by the CAA.*

Comment (9th paragraph): The EIE notes that a state wetlands permit will likely be required. The Inland Water Resources Division (IWRD) confirms that this is the case. Conversely, the document concludes that a Section 401 Water Quality Certification and Section 404 Permit will not be required. However, based on recent information from the Army Corps of Engineers, the use of timber mats in wetlands are considered temporary fill and any ground disturbance (soil movement and redeposition of wetland soils) is considered to be a discharge, so if these activities are proposed, the project would require certification and a permit.

Response: *The CT DEEP comments confirm that that a state wetlands permit WILL be required for tree cutting or tree removal from state jurisdictional wetlands,*

In federal jurisdictional wetland resource areas, Section 401 Water Quality Certification and Section 404 Wetland Permits will NOT be required. The project specifications will avoid the use of timber mats by requiring non-mechanized removal techniques. Alternatively, if frozen ground is present during tree removal, traditional clearing may be possible without temporary fills or soil disturbance. As frozen ground cannot be relied upon, hand cutting (i.e. using chainsaws) is anticipated within wetland areas.

Comment (11th paragraph): The figure for Runway 27 depicts proposed terrain grading just southeast of the runway end within the Mansfield Hollow Wildlife Area. The picture on page 4-9 shows this as one location of wetlands. If wetlands are proposed to be graded, the need will have to be demonstrated during permitting.

Response: *The high terrain in the area is an obstruction. However, the grading area shown on the figure has been reduce in size, and is now limited to the upland areas. As grading in proximity to wetlands is necessary, design and construction parameters will be employed to prevent both temporary and permanent wetland impacts, and will be addressed during design and permitting.*

Comment (12th paragraph). For any tree clearing on State property, the DEEP will request that all commercially viable material be cut to specifications to be provided by the Division of Forestry and delivered to the DEEP sawmill located at the Portland Depot, 163 Great Hill Road, Portland.

Response: *Comment noted. Transportation of the cut materials for harvesting is an acceptable practice under FAA funded project, where a formal program has been established and transportation distances/costs are reasonable. The FAA does not have a defined maximum distance for transportation of cut logs or materials; however, at under 30 miles from the Airport, it is assumed that the distance to the Portland Depot is reasonable.*

Comment (13th paragraph): At the ends of Runways 18 and 27, areas for selective removal of trees extend to the banks of the Natchaug River. The Natchaug River supports a diverse, coldwater fish community consisting of stocked and wild trout. Page 5-15 explains the importance of maintaining streambank vegetation and notes that steep banks may lead to retaining some trees. In accordance with the Inland Fisheries Division Riparian Corridor policy, the Department recommends that every effort be made to maintain a 100 ft. wide natural undisturbed riparian buffer adjacent to the Natchaug River. See link for a copy of the policy: [Riparian Corridor Policy](#). A significant riparian buffer adjacent to the river that regulates water temperatures and minimizes sedimentation into the river is also essential to minimize impacts to state-listed damselflies and freshwater mussels.

Response: *The project design will include an effort to maintain a 100 foot wide undisturbed vegetated buffer adjacent to the Natchaug River to the greatest extent possible. The goal is to*

maintain water temperatures, minimize sedimentation into the river, and to minimize impacts to state-listed damselflies and freshwater mussels that may reside within the river reach. Also see response above to change the recommendation to selective removal along the river.

Comment (14th paragraph): Clearing within the sandplain habitat located north of Runway 18 and south of the Natchaug River is of particular concern to the Natural Diversity Data Base. Additional detail will be required for work to be conducted in this area, including any grading and how trees will be removed. Host plants of state-listed invertebrates, including scrub oak (*Quercus ilicifolia*), pitch pine (*Pinus rigida*), wild lupine (*Lupinus perennis*), old-field toadflax (*Nuttallanthus canadensis*) and wild indigo (*Baptisia tinctoria*), should be preserved.

Response: *Noted. Grading is not proposed and appropriate removal techniques will be defined in the plans within these sensitive locations. As design progresses, the mentioned host plants will be field-located by qualified personnel, their locations recorded via GPS, and depicted on plan sheets in order to provide additional detail to the Natural Diversity Data Base. The engineering and design team can then work with the NDDB personnel to avoid or minimize impacts to populations of the flora of conservation concern.*

Comment (15th paragraph): The Natural Diversity Data Base recommends the retention of pitch pines, wherever they are found, as it is a tree species utilized by rare lepidoptera that has come under threat by the range expansion of the Southern pine beetle (*Dendroctonus frontalis*). In addition, crowns should not be chipped and distributed in areas where pitch pine and scrub oak occur. The deposition of wood chips in these areas have the potential to smother native herbaceous growth, facilitate colonization of invasive species and impact State-listed invertebrates (especially those which are ground-nesting).

Response: *Removal of pitch pines can be minimized during the design process. CAA concurs that wood chips are a potential waste generated on site that will have to be managed properly as recommended. The prevention of wood chip deposition on site is a standard practice for contractor specifications, and proper waste management and handling measures for the wood chips will be incorporated in the project plans. Proper disposal may also be a condition of permit.*

Comment (16th paragraph): Most of the work seems to skirt the grassed areas in the airport. If grassland habitat will be impacted, it should not be during the avian nesting season (May 1- August 15).

Response: *The tree removals do avoid the grassed areas of the airport. Efforts will be made to minimize impacts to this rare habitat both spatially and temporally in order to avoid impacts to nesting birds of conservation concern.*

Comment (17th paragraph): Both pages 4-8 and 5-15 describe the Natchaug River meeting the Willimantic River; the confluence of these rivers is several miles to the south in Willimantic. On page 5-15, IWRD is incorrectly identified as Inland Wetland Resources Division.

Response: *Comments noted.*

Public Comment: *I am curious as to whether a determination has been made of how many trees would need to be cut down as a result of the off-airport tree removal project. Specifically, I'd like to find out how that would impact Natchaug State Forest, Mansfield State Forest, Air Line Trail and other public areas.*

Response:

Thank you for your interest in the Environmental Assessment (EA) and Impact Evaluation (EIE) Study for Obstruction Removal at the Windham Airport. As you may already be aware the draft document as well as other project information can be found at <http://windhamairport.caa-analysis.com/>.

A count of the number of trees that may be potentially be removed has not been conducted as part of this project. The study's purpose is to identify the general location, area and type of obstruction penetrating the federally protected airspace and evaluate the potential impact of various tree removal options (total removal or selective thinning) but not to identify specific trees. Maps identifying these areas are included in the EA and can also be found on the project website listed above.

You asked specifically about the potential impacts to public areas including Natchaug State Forest, Mansfield State Forest, and Airline State Park Trail. Section 5.5 of the EA discusses publically owned lands also known as Section 4(f) lands and identifies parcels where tree removal or selective thinning activities could occur. The project will require selective thinning of trees within an area of Mansfield Hollow State Park (Parcel 40) and a small area of Natchaug State Forest located East of Runway 27 (Parcel 18). Both of these areas are undeveloped, consist of mature stands of trees, and are available for passive recreational use. Upon completion of the tree thinning or removal operations described above, the use and access to these areas of the State Park and State Forest will remain unchanged.

Airline State Park Trail which runs west to east is located south of Runway 36. Selective thinning has been identified on Parcel 46 adjacent to the Trail and minimally extends into the trail Right of Way. Selective removal near the trail will retain a vegetative buffer to avoid changing the overall character of this section. Although the trail is bordered by forested areas in this location it is also in close proximity to a housing development and several roadways. No tree removal will occur on the trail itself and the project will not impact its future use.

The Flood Control Levee foot path is also a publicly owned recreation area to the north of Runway 27, however there are no trees on either side of the trail in this area and as such there will be no change to the surrounding vegetation or the use of the trail.

The FAA has established airspace and design criteria to provide for safe aircraft operations. The 2012 obstruction study completed by the CAA identified existing safety deficiencies at Windham airport including multiple obstructions to the Federal Aviation Regulation (FAR) Part 77 surfaces, Terminal Instrument Procedures (TERPS), and Airport Design Standards. In short the results of this Study identified that the Airport does not provide adequate airspace surfaces to its runways. The removal of obstructions will promote safety and bring the airport into compliance with FAA design standards for clear airspace with minimal impacts on public lands.

Comment: *I wanted to find out how many people have submitted comments regarding this project and what concerns they had. Also, what is DEEP's position on this?*

Response:

A summary of the tree removal & thinning plan was presented to at the public meeting last month. As of this date (4-22-16), we have not yet received other comments on this issue. The public comment period remains open and all comments received will be published in the Final EA.

We have spoken with representative of the DEEP regarding the Draft EA and proposed action, and anticipated receiving written comment from DEEP in the near future.