# FINAL

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

**Groton-New London Airport (GON)** 

Prepared for:





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

**GROTON-NEW LONDON AIRPORT (GON)** 

FAA AIP NO. 3-09-0900-010-2014 CAA CONTRACT NO. 2014-02 CHA CONTRACT NO. 29067

June 2017

Prepared for: Connecticut Airport Authority (CAA)



Prepared BY: CHA Consulting, Inc.



Groton-New London Airport (GON)
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: Richard Doucette Date
Manager, Environmental Programs

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

**GROTON-NEW LONDON AIRPORT (GON)** 

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 where retained for informational purposes.

### 1.0 DECISION

The Connecticut Airport Authority (CAA), owner and operator of the Groton-New London Airport (GON) intends to implement the proposed action detailed in the Environmental Assessment and Environmental Impact Evaluation for Obstruction Removal issued on June 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 Groton-New London Airport is a public-use, publicly owned general aviation (GA) airport situated on approximately 489 acres in the Town of Groton, Connecticut, and is located along the Poquonnock River at an average elevation of nine feet above mean sea level (MSL). The airport is located approximately seven miles driving distance southeast of downtown New London and 55 miles southwest of Providence, Rhode Island. The Airport is bordered by Interstate 95 to the north and Fishers Island South and Backers Cove to the south.

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 Groton-New London 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 November 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.



In November 2016 the Draft EA/EIE was issued and made available for review and comment on the CAA project website (http://grotonairport.caa-analysis.com/) and published in the Environmental Monitor (http://www.ct.gov/ceq/site/default.asp). 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 hearing, and details on the comment process, was advertised in The Day website. The advertisement was posted on November 8<sup>th</sup>, 2016 and December 2<sup>nd</sup>, 2016. Per CEPA requirements, this notice was also mailed to CTDEEP, the City of Groton, and the Connecticut Office of Policy and Management (OPM). Comments were accepted through Tuesday, January 24<sup>th</sup>, 2017. Approximately 74 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 hearing was held on December 8<sup>th</sup>, 2016 at the City of Groton Council Chambers, 295 Meridian Street, Groton, CT 06340. 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 fifty-nine (59) members of the public. The public hearing transcript can be found in Appendix D of the accompanying EA/EIE.

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://grotonairport.caa-analysis.com/) 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://grotonairport.caa-analysis.com/



# FINAL ENVIRONMENTAL ASSESSMENT (EA) & ENVIRONMENTAL IMPACT (EIE) EVALUATION FOR OBSTRUCTION REMOVAL GROTON-NEW LONDON AIRPORT (GON)

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.

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### **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				
GON	Groton-New London Airport				
NAAQS	National Ambient Air Quality Standards				
NEPA	National Environmental Policy Act of 1969				
PIAS	National Plan of Integrated Airport Systems				
03	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 Groton-New London 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. It is noted that tree removal activities may require environmental permits based on site conditions, as well as the purchase of a permanent easements for removals located on private property.

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 including 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 Groton-New London 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

### 1.1 PROJECT LOCATION AND EXISITING FACILITIES

The Groton-New London Airport is a public-use, publically owned general aviation (GA) airport situated on approximately 489 acres in the Town of Groton, Connecticut, and is located along the Poquonnock River at an average elevation of nine feet above mean sea level (MSL). The airport is located approximately seven miles driving distance southeast of downtown New London and 55 miles southwest of Providence, Rhode Island. The Airport is bordered by Interstate 95 to the north and Fishers Island Sound and Bakers Cove to the south. Appendix A provides a map which depicts the location of the Groton-New London Airport relative to the surrounding area.

### **Runway 5-23**

Runway 5-23 serves as the primary runway and is 5,000 feet long and 150 feet wide. Refer to Table 1 for a side by side comparison to the intersecting Runway 15-33.



### **Runway 15-33**

Runway 15-33 serves as the crosswind runway and is 4,000 feet long and 100 feet wide. The Runway 15 approach end has a 230 foot displaced threshold due to obstructions (i.e., trees) located within the FAR Part 77 approach surface and the Runway 33 approach end has a 205 foot displaced threshold. Refer to Table 1 for a side by side comparison to the intersecting Runway 5-23.

TABLE 1- EXISTING AIRPORT FACILITIES						
RUNWAY 5-23 RUNWAY 15-33						
Runway Length (Feet)	5,000'	Runway Length (Feet)	4,000'			
Width (Feet)	150'	Width (Feet)	100'			
Surface Type	Bituminous concrete	Surface Type	Bituminous concrete			
Parallel Taxiway	TWY C	Parallel Taxiway	TWY B			
Threshold Displacement	RWY 5: None	Threshold Displacement	RWY 15: 307'			
(Feet) <sup>1</sup>	RWY 23: None	(Feet)	RWY 33: 205'			

EMAS Installed<sup>1</sup>

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

### 1.2 BASED AIRCRAFT AND AVIATION ACTIVITY

Groton-New London Airport is a general aviation facility that serves private, corporate, and charter aircraft operating for recreational/personal, training, and business purposes. The Airport is also one of four airports in Connecticut that maintains a Federal Aviation Regulation Part 139 Airport Operating Certificate. Airport Operating Certificates serve to ensure safety in air transportation. The Part 139 certificate requires the Airport to meet certain operational and safety standards and provide for essential services such as firefighting and rescue equipment. These requirements vary depending on the size of the airport and the type of flights available. While the Groton-New London Airport maintains its commercial operating certificate, the Airport does not offer scheduled airline service. The FAA's most recent 5010 Airport Master Record Data from which is dated 2016 lists the total number of based aircraft at 51. Table 2 lists the existing based aircraft and Table 3 lists the annual operations at the airport.

TABLE 2- BASED AIRCRAFT							
SINGLE ENGINE MULTI ENGINE JET ROTOR GLIDERS MILITARY TOTAL							
Based Aircraft	36	7	5	1	0	2	51

Source: FAA 5010 Database (2016)

TABLE 3- ANNUAL OPERATIONS						
AIR CARRIER AIR TAXI GA LOCAL GA ITINERANT MILITARY TOTAL						
Operations	0	1,665	13,220	21,888	2,098	38,871

Source: FAA 5010 Database (2016)

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) <sup>1</sup>			AIRPLANE DESIGN GROUP (ADG) <sup>2</sup>			
CATEGORY	APPROACH SPEED	GROUP	TAIL HEIGHT	WINGSPAN		
А	Approach speed less than 91 knots	1	< 20'	<49'		
В	Approach speed 91 knots or more but less than 121 knots	Ш	20' - < 30'	49' - < 79'		
C Approach speed 121 knots or more but less than 141 knots		Ш	30' - < 45'	79' - < 118'		
D	D Approach speed 141 knots or more but less than 166 knots		45' - < 60'	118' - < 171'		
E	E Approach speed 166 knots or more		60' - < 66'	171' - < 214'		
		VI	66' - < 80'	214' - < 262'		

Source: FAA AC 150-5300-13A, Airport Design<sup>1</sup>

As previously identified, Groton-New London Airport is served by two runways (Runway 5-23 and Runway 15-33). The design aircraft for Runway 5-23 is the Citation 680 which has an aircraft approach category (AAC) of C and an airplane design group (ADG) of II. Therefore, based on these design aircraft characteristics for Runway 5-23, the airport reference code is C-II. The design aircraft for crosswind Runway 15-33 has been identified as a Beechcraft King Air 200. The Runway is therefore classified with an AAC of B and an ADG of II. Therefore, based on these design aircraft characteristics Runway 15-33 has an ARC of B-II. Table 5 provides a summary of the runway design codes (RDC) classifications for both runways at the Airport.

TABLE 5 - RUNWAY DESIGN CODE SUMMARY					
Runway Design Aircraft AAC ADG					
5-23	5-23 Citation 680		II		
15-33	Beechcraft King Air 200	В	11		

Source: Airport Master Plan Update Dated (2013)

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 5-23 (primary runway) is classified with the highest RDC at the Airport. Therefore, the ARC for the Groton- New London Airport is classified as C-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 Groton-New London Airport.

TABLE 6- FAR PART 77 SURFACE DIMENSIONS (FEET)					
SURFACE	RUNWAY 5	RUNWAY 23	RUNWAY 15	RUNWAY 33	
Primary Surface Width	1,000	1,000	500	500	
Horizontal Surface Radius	10,000	10,000	5,000	10,000	
Approach Surface Width at End	16,000	3,500	1,500	3,500	
Approach Surface Length	10,000/40,000	10,000	5,000	10,000	
Approach Procedure	Precision	Non-Precision	Visual	Non-Precision	
Approach Slope	50:1/40:1	34:1	20:1	34:1	

Source: CHA Consulting, Inc.



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 Groton-New London Airport. Based on the FAA design criteria, the results of this analysis identified exiting safety deficiencies at the Airport 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 the Groton-New London Airport. The recent airport obstruction study identified substatial 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 devloped.

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 2013 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 reduces 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	Advantages Disadvantages				
<ul> <li>No wetland impacts (temporary or permanent)</li> <li>No impacts to biological resources, habitats, or species of concern</li> <li>No impacts to parks or recreation</li> <li>No impacts or disturbance to property owners</li> </ul>	<ul> <li>Retains potential hazards to airport users</li> <li>Retains a potential hazard to people and property on the ground surrounding the airport</li> <li>Does not comply with FAA design standards or grant assurances</li> </ul>				

### 3.1.2 Full Obstruction Removal Alternative

No project costs

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.

Risks future FAA funding for

improvements to 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 penetrations to the Approach Surface and orange dots for obstructions to the Transitional Surfaces. These dots represent the most critical obstructions only, there are likely many more trees penetrations than shown by the dots. As such, in order to remove all obstructions per this alternative, comprehensive tree clearing would be necessary in all locations where these dots are present.



For Groton-New London Airport, the approach surfaces to the primary runway include a relatively flat 50:1 slope on Runway 5 and a 34:1 slope on Runway 23, resulting in penetrations over a several areas beyond both runway end. The majority of obstructions on both runway ends lie either within airport property or on land that is part of Bluff Point State Park. For the crosswind runway, Runway 15 also has a steeper 20:1 slope, while Runway 33 has a flatter 34:1 approach surface, covering a larger area. Like both ends of the primary runway, all off-airport obstructions for Runway 33 lie within Bluff Point State Park. Runway 15 obstructions are mainly concentrated to the Birch Plain Golf Course, with some commercial properties and undeveloped land impacted as well.

For the airport as a whole, this alternative would result in approximately 75 acres of tree removal. For tree removals on 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, costal, and sensitive habitat, as well as the private properties affected. The cost and time involved to complete this alternative would be substantial, and may be beyond that need to satisfy public safety.

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, coastal areas, 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 the golf course, 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 fairways 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.



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.

mgnttime operations.	
Advantages	Disadvantages
<ul> <li>Clears or lights virtually all defined aeronautical surfaces</li> <li>Satisfies federal design standards and assurances</li> <li>Comprehensive removal of potential hazards to airport users</li> <li>Improves safety for people and property on the ground surrounding the airport</li> </ul>	<ul> <li>Potential for impacts to wetlands and coastal areas (temporary or permanent)</li> <li>Potential impacts to biological resources, habitats, or species of concern</li> <li>Substantial coordination and negotiation needed with property owners</li> <li>The need for numerous avigation easements may prevent successful completion of project and significantly extend the required schedule</li> <li>High project costs</li> <li>Successful completion is questionable</li> </ul>

### 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, total acreage, 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. In addition, for runways with displaced landing thresholds, the Threshold Surface is located based on the



displacement, as opposed to the runway end. Displaced landing thresholds are often used to alleviate penetrations to the Threshold Surfaces.

For Groton-New London Airport the Threshold Surface to Runway 5 is a 34:1 slope, with the slope of the other three runway ends are a stepper 20:1, which reduces the penetrations to a 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. This alternative would result in approximately 60 acres of tree removal on 6 individual private parcels, plus three location on Bluff Point State Park.

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

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

process – selective thinning. In other words, the hatching areas (green and yellow) indicate locations of obstructions to the threshold surfaces, which would be removed under the Modified Obstruction Removal Alternative. In some locations for preventative purposes, this alternative also recommends removals to some Part 77 surface penetrations as well. This selective thinning is use in locations where fewer obstructions are present and/or sensitive environmental conditions are anticipated (e.g., wetlands, streams). Similar to the other alternatives, for tree removals on private parcels, permanent 'avigation' easements are typically required.

Note that both ends of Runway 15-33 have 'displaced thresholds', meaning the landing point is displaced from the physical end of the runway. For this runway, the figures depict the Approach Surface based on the runway end, and the separate Threshold Surface based on the displaced threshold location. The shaded clearing areas on each map is the proposed tree removal under this alternative.

<u>Runway 5</u>: For this runway end the clearing would be limited to just a few selected trees (i.e., magenta dots) located on a peninsula of the Bluff Point State Park (owned and operated by the CTDEEP) that extends out between the Bakers Cove and Fishers Island Sound. This alternative limits tree removal activity within these coastal and tidal areas.

Runway 23: The clearing for this runway end could also be limited to just a few tall trees (magenta dots). However, as shown with green shading, additional areas of undeveloped airport and park property are suggested for clearing to prevent future penetrations to the Threshold Surface. Thus several Approach Surface obstructions (blue dots) are being recommended for removal under this alternative. CAA would work with CTDEEP to determine the extent of these removals during the design and permitting process.

<u>Runway 15</u>: Includes selected removal on six private commercial parcels, including the golf course. As discussed above, avigation easements would be needed from property owners, 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.



<u>Runway 33</u>: Depicts a sizable area of selective removal (green shading), but with very limited penetrations to the Threshold Surface (magenta dots). Similar to Runway 23, the additional area includes Park property and are suggested for clearing to prevent future penetrations to the Threshold Surface. As such, Approach Surface obstructions (blue dots) are being recommended for removal under this alternative. CAA would work with CTDEEP to determine the extent of these removals during the design and permitting process.

On all of the lands of the Bluff Point State Park, individual trees can be identified for removal, to the extent practical, with minimized clearing activities where desired. The Park including several hiking trails located in the recommended clearing area beyond Runway 33. As such, all activities will required coordination and approval by CTDEEP.

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).
- Winter removals may also be employed to reduce impacts to several bat and bird species, and reduce ground disturbance.
- Removals will be conducted in coordination with State and Federal regulatory agencies, and follow required techniques or procedures defined during the permitting process.

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.

properties and the natural environment.	
Advantages	Disadvantages
<ul> <li>Clears the critical obstructions</li> <li>Satisfies federal design standards and assurances</li> </ul>	<ul> <li>Potential impacts to wetland, biological, habitat, or species of concern remain present</li> </ul>
<ul> <li>Improves safety for people and property on the ground surrounding the airport</li> <li>Reduces impacts to environmental</li> </ul>	<ul> <li>Easement are required with property owners</li> <li>Less critical obstructions will remain</li> </ul>
resources	



reduces costs

<ul> <li>Reduces the number of affected property</li> </ul>	Outer
owners	with o
<ul> <li>Streamlines the project schedule and</li> </ul>	

Outer Part 77 surfaces are not protected with obstruction lighting

The CAA and FAA have identified this alternative as the most practical solution. This alternative balances the 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.

The CAA recognizes the unique circumstances related to activities within Bluff Point State Park, Bluff Point Natural Area and Bluff Point Coastal Reserve. Prior to design and permitting, a pre-permitting meeting will be scheduled with the CTDEEP and other agencies as appropriate to determine the need for and extent of biological surveys of critical habitat, state listed plants, threatened or endangered species (federal and state). In addition, more details regarding the specific trees to be removed and the methodology used for their removal will be thoroughly coordinated with the CTDEEP and these agencies. As such, tree removal methodologies will proceed as directed upon obtaining required project permits.

As discussed above, detailed illustrations of the removal areas for this alternative have been prepared and are provided in Appendix A. These figures 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.
- <u>Clear Cutting and Providing a Maintainable Surface</u> 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.
- <u>Further Displacement of Thresholds</u> The displacement of a runway's landing location (i.e., threshold) will reduce the amount of tree penetrations to the Threshold Surface. Currently Runway 15 has a 307 foot displaced threshold, and Runway 33 has a 205 foot displaced threshold, which reduces the need for clearing to the east and west of the airport. However, displaced thresholds reduce the landing length available for airport users. As such, this alternative was considered but dismissed for the primary Runway 5-23. Reducing the available landing length would diminish the existing capability of the airport.



- Closure of Runway 15-33 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 Groton-New London, 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 15-33, 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 review by CAA and FAA, the Modified Obstruction Removal Alternative has been chosen as the "Preferred Alternative" for Groton-New London Airport. This determination is primarily related to the Full Removal Alternative being considered not practical nor 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 alternative 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

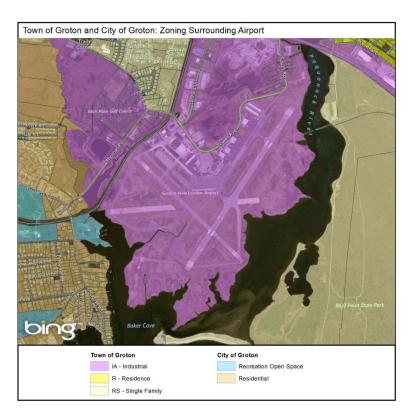


### **4.1 LAND USE AND ZONING**

The Groton-New London Airport is located in the Town of Groton and abuts the boundary of the City of Groton. The airport is on a peninsula and all of the land on the airport property is occupied for aircraft related uses with the exception of a pocket of freshwater wetlands located north-northwest of Tower Avenue.

The existing Groton-New London Airport is situated on the Connecticut coast on Fishers Island Sound and is surrounded on the southwest, south, and east by Baker Cove, the Sound, and the Poquonnock River respectively. The approximately 800 acre Bluff Point State Park including both Bluff Point Beach and Bushy Point Beach is situated east of the Airport and the Poquonnock River. The portion of the headland bluff that fronts the Sound, and the sandspit that forms the beaches are only accessible by foot or non-motorized vehicle.





To the west of Runway 15 and Thomas Road is the Birch Plain Golf Course and the Sparkle Lake Conservation Area. West and south of Runway 5 and Baker Cove is Jupiter Point and the University of Connecticut at Avery Point.

North of Tower Avenue, land use is a combination of commercial/industrial and undeveloped. Other land uses include a mix of activities typical of long-established urban and suburban communities. Development abutting the airport to the north and northwest is a business/office park, and a rail line.

Zoning of the Airport and its immediate surroundings is Industrial (IA-40) which allows a number of business and light industrial uses. To the east, Bluff Point State Park is zoned Residential Single Family (RS-20). Allowable uses include in the RS-20 zone include single family residential, library, public parks and playgrounds and public

recreation center. Areas to the west and north are also zoned IA-40. Avery Point and its environs are in the City of Groton and is residentially zoned (R-12 and R-5.1).

The proposed tree clearing of the proposed action is limited to three locations within Bluff Point State Park, as well as in the commercial area west of the Airport (IA-40 zoning), including the Birch Plain Golf Course.

### 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.

Bluff Point State Park which also includes the Bluff Point Coastal Reserve and Natural Area Preserve is located to the east and south of the Airport and includes an area identified for the selective removal of trees beyond Runways 5, 23, and 33. The special protections afforded the Bluff Point Peninsula are described below:

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. 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. This 117 acre area is to be maintained 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."

### **4.3 THREATENED AND ENDANGERED SPECIES**

The habitat assessment for the Groton-New London Airport (GNL) involved agency coordination with the CTDEEP Natural Diversity Database (NDDB), screening through the United States Fish and Wildlife Service's (USFWS) Information Planning and Conservation System (IPaC), geographic information system (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 Poquonnock River estuary lies between the GNL airport and Bluff Point State Park. The lower reaches of the river and Birch Plain Creek sustain an estuarine and amphidromous fish species community. The salt marshes associated with rivers such as these typically support a variety of fish species both within the small creeks and ditches and in the river channels that flow through the area. Creeks and ditches typically contain Atlantic Silversides (*Menidia menidia*), Common Mummichogs (*Fundulus heteroclitus*) and Striped Killifish (*Fundulus majalis*). During periods of flooding, these species of fish swim from the ditches and creeks onto the marsh where they consume mosquito larvae, other invertebrates, and detritus. In turn, they are preyed upon by Winter Flounder (*Pseudopleuronectes americanus*), Bluefish (*Pomatomus saltatrix*) and Striped Bass (*Morone saxatilis*) and other voracious piscivorous fish spp. (King 2006). The National Marine Fisheries Service (NMFS) on-line EFH Mapper tool (<a href="www.habitat.noaa.gov/protection/efh/efhmapper/">www.habitat.noaa.gov/protection/efh/efhmapper/</a>) identifies the waters off of Bushy Point Beach to lie within a larger area designated as essential fish habitat (EFH). EFH has been designated in this area for one or more life stages of the following 11 fish species:

- Winter Skate (Leucoraja ocellata)
- Little Skate (Leucoraja erinacea)
- Smooth Dogfish (Mustelus canis)
- Summer Flounder (Paralichthys dentatus)
- Black Sea Bass (Centropristis striata)
- Scup (Stenotomus chrysops)
- Longfin Inshore Squid (Loligo pealeii)
- Atlantic Mackerel (Scomber scombrus)
- Bluefish (*Pomatomus saltatrix*)
- Atlantic Butterfish (Peprilus triacanthus)
- Atlantic Herring (Clupea harengus)



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, especially among the birds. Since the site occurs along the coast, it lies along a major migratory and dispersal route for birds. A list of bird species (214 spp. as of December 2015) reported to occur from adjacent Bluff Point State Park and adjoining habitats can be obtained from eBird at the following link: <a href="http://ebird.org/ebird/hotspot/L109240">http://ebird.org/ebird/hotspot/L109240</a>. A list of 29 species reported observed at the GNL Airport can be viewed on eBird at the following link: <a href="http://ebird.org/ebird/hotspot/L2347371">http://ebird.org/ebird.org/ebird/hotspot/L2347371</a>. Szantyr (2007) documented 98 species of birds on the airport during seasonal surveys conducted in 2006.

Waterbirds are a highly visible group within the wetlands surrounding the airport. Typical species include Canada Goose (*Branta canadensis*), American Black Duck (*Anas rubripes*), Mallards (*Anas platyrhynchos*), and Double-crested Cormorants (*Phalacocorax auritus*), all of which are typically present throughout most of the year. During migration, other less frequently seen species such as American Wigeon (*Anas americana*), Green-winged Teal (*Anas crecca*), and Gadwall (*Anas strepera*) can be found. Various long-legged waders such as the Great Blue Heron (*Ardea herodias*), Great Egret (*Ardea alba*) (CT-T) and the Snowy Egret (*Egretta thula*) (CT-T) are regular visitors and are often encountered feeding within the salt marshes surrounding the airport.

Among the raptors, Osprey frequent the marshes surrounding the airport from May through September. Ospreys feed within the cove throughout the breeding season and pass through during migratory movements or post-breeding dispersal. Peregrine Falcon (*Falco peregrinus*) (CT-T) also occurs from time to time within the system during migratory movements, as does the American Kestrel (*Falco sparverius*) (CT-T) and Northern Harrier (*Circus cyaneus*). Owls are also known to occur within the project area, with Barred Owls (*Strix varia*) frequenting wooded swamps, Eastern Screech Owls (*Megascops asio*) frequenting shade trees along riparian corridors, Great Horned Owls (*Bubo virginianus*) frequenting large expanses with varied habitats, and Short-eared Owls (*Asio flammeus*) occurring from time to time within the coastal grasslands during winter. An owl roost was reported to occur within the project area by the CTDEEP NDDB.

Intertidal mud flats within the system host a number of shorebirds during northbound movements in April and May, and again during southbound migration which peaks in August. The species reported to occur within the system include plovers, yellowlegs, Willet (*Catoptrophorus semipalmatus*), and various "peep" sandpipers (*Calidris* spp.) Killdeer (*Charadrius vociferous*) commonly occurs on the mowed grassy areas of the airport as well. The American Oystercatcher (*Haematopus palliatus*) (CT-T) and Piping Plover (*Charadrius melodus*) (CT-T) occur on the barrier beach that extends eastward from Bluff Point.

Gulls and terns frequent the waterways to feed and may roost on the open water from time to time. The state special concern Common Tern (*Sturna hirunda*) and state threatened Least Tern (Sterna *antillarum*) often feed in the open water channels and the latter often nests in colonies on the west end of the barrier beach portion of Parcel 1.





Examples of two Connecticut protected Species; state threatened Piping Plover (juvenile, left) and state threatened American Oystercatcher (Adult, right). Both are known to breed on Brush Point Beach at Bluff Point State Park.

Various songbirds frequent the habitats in the project areas as well. Aerial insectivores often seen include swifts, swallows, Eastern Kingbirds (*Tyrannus tyrannus*) in open areas, and various flycatcher species within the more densely vegetated portions of the project area.

Shrubland songbirds seen along the shoreline include wrens, blackbirds, sparrows, the Common Yellowthroat (*Geothlypis trichas*), American Goldfinch (*Spinus tristis*) and Red-winged Blackbirds (*Agelaius phoeniceus*). Szantyr (2007) reported the state special concern Brown Thrasher (*Toxostoma rufum*) as a nesting species in the coastal scrub areas at the south end of the airport.

Upland grassland songbirds reported to have used the airport in the past include Savannah Sparrow (*Passerculus sandwichensis*) (CT-SC), Bobolink (*Dolichonyx oryzivorus*) (CT-SC), and Eastern Meadowlark (*Sternella magna*) (CT-T) (Szantyr, 2007). The estuarine wetland resource areas that wrap around the shoreline of the airport south of Runway 5 have been identified as potential suitable breeding habitat for the Saltmarsh Sparrow (CT SC) a saltmarsh habitat specialist. The Probability of Saltmarsh Sparrow (*Ammodramus caudacutus*) nest presence in portions of these marshes has been determined via modeling to be high (i.e., >80%).

Aside from birds, the most abundant vertebrate animals observed within the project area are Gray Squirrel (Sciurus carolinensis), and Eastern Chipmunk (Tamias striatus). White-tailed Deer (Odocoileus virginianus), are also common at Bluff Point State Park and are likely to be found within the impact area. Burrows of Woodchuck (Marmota monax) and Red Fox (Vulpes vulpes) were also encountered on or adjacent to GNL Airport. Other abundant mammals include Raccoon (Procyon lotor), Opossum (Didelphimorphia), Eastern Cottontail (Sylvilagus floridanus), and a variety of rodents. Arboreal-roosting bats are likely present in the areas as well. 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 (ESA). Another species, the Northern Long-eared Bat (Myotis septentrionalis) has recently been listed in the ESA as threated 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 the GNL Airport property and therefore have potential to occur within the certain habitats in or adjacent to the obstruction removal areas. They include both aquatic and terrestrial insect species representing



various insect orders, the most visible being dragonflies (Odonata), butterflies and moths (lepidoptera), bees, wasps, and ants (hymenoptera), etc. The river and marsh habitats support a suite of mollusks and crustaceans such as the mud snail (*Nassarius obsoletus*), the rough periwinkle (*Littorina saxatilis*), and the salt marsh snail (*Melampus bidentatus*). The ribbed mussel (*Modiolus demissus*) is likely the dominant bivalve mollusk within the salt marsh. Crustaceans, including decapod (crabs and shrimp), amphipod (sand fleas), and isopod (sowbug) crustaceans are other important food sources to fish and wildlife that are typically found in the salt marsh system. Notable species include the blue crab (*Callinectes sapidus*); and the fiddler crabs (*Uca pugnax* and *U. minax*). Abundant shrimp found in Connecticut tidal marshes tend to be the prawns *Palaemonetes vulgaris* and *Palaemonetes pugio*. Less conspicuous are the amphipods (typically three common species in Connecticut marshes) and the terrestrial or semi-terrestrial isopods. All mollusks and crustaceans are important food sources for fish and wildlife and therefore are important components of the marsh system.

The wildlife species of conservation concern with specific status as recognized by either state or federal natural resource agencies and the species' respective habitats are presented in Table 7 below.

**Plants:** A portion of the project area is characterized by a temperate deciduous forest dominated by tall 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, but vegetated habitats include dunes dominated by Beachgrass (*Ammophila breviligulata*); saltmarsh dominated by various halophytic grasses; grassland/meadows composed of a mix of grasses, sedges, and various forbs; old field / early successional habitats dominated by woody shrubs interspersed with herbaceous vegetation (forbs, grasses, and grass-like plants); and lawn areas composed of mowed grasses.

Non vegetated naturally occurring habitats include beach strand, mud flat, intertidal beach, and rocky intertidal shores.

All vegetated habitats, their characteristic vegetation, location in the project area and characteristic wildlife species of conservation concern are provided in Table 7 below.

Rare Species: A review of CTDEEP Natural Diversity Database (NDDB) GIS mapping revealed a number of mapped locations of rare breeding species sites. The CTDEEP NDDB (CTDEEP, 2016) reported at least four species of birds and 19 species of plants listed as endangered, threatened, and special concern species as now or formerly occurring on or adjacent to the GNL Airport property. These species are identified in the CTDEEP NDDB response letter which is provided in Appendix C, and in Table 7 below. A study contracted by the CTDOT in 2006 (Szantyr, 2007) resulted in the identification of 19 species of birds on site that are listed in the CT ESA as Special Concern (SC), Threatened (T), or Endangered (E). These species are also included in Table 7 below.



 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 Reported to Potentially Occur in the Project Area <sup>1, 2, 3</sup>	CT Status <sup>4</sup>	Federal Status
Deciduous Hardwood Mesophytic Forests:	Sugar Maple, Tulip, Black Birch, Red Maple. Ironwood and Witch-hazel often form sub-canopy layers; Characteristic herbs: Canada	1, 18, 26	Wood Thrush (Hylocichla mustelina) Worm-eating Warbler (Helmitheros vermivorus) Northern Long-eared Bat	GCN – Most Important GCN – Very Important Endangered	Conservation Concern Conservation Concern Threatened
	Mayflower, Christmas Fern, and Wood Fern		(Myotis septemtrionalis)	GCN – Most Important	
Appalachian Dak Forest	White Oak and Northern Red Oak, Black Birch, Black Cherry, Sassafras, and	1, 18	Worm-eating Warbler	GCN – Very Important	Conservation Concern
various hickories in tree layer; Maple-leaved Viburnum, Lowbush Blueberry, huckleberry, wild sarsaparilla in shrub layer.		Northern Long-eared Bat	Endangered GCN – Most Important	Threatened	
Mixed	White Pine with Northern	21, 22, 23, 25	Roosting owls		
Deciduous / Coniferous Forests, Woodlands, or stands	Red Oak, Black Oak, Big- toothed Aspen, and various hickories. Spruce is present at some locales (golf course) and Red Cedar is mixed in with some woodland patches		Northern Long-eared Bat	Endangered GCN – Most Important	Threatened
Red Maple Forest/ Swamps	Yellow Birch, Tupelo & 21	1, 18, 19, 20, 21, 23, 24, 25, 26	Violet Wood Sorrel ( <i>Oxalis</i> violacea)	Special Concern	
			Canada Warbler (Wilsonia candensis)	GCN – Very Important	Conservation Concern
			Rusty Blackbird (Euphagus carolinus)		Conservation Concern
			Northern Long-eared Bat	Endangered GCN – Most Important	Threatened
White Pine Forest/ Stand	White Pine in the tree layer; sparse to non-existent shrub and herb layers	1	Northern Long-eared Bat	Endangered GCN – Most Important	Threatened
Shrubland / Old Field	Big-toothed Aspen, Gray Birch, Sassafras, various cherry species in the sapling layer; Sweet Fern, Staghorn Sumac and various bramble spp., Green Bier, often interspersed with non-native invasive shrubs.	1, 18, 21, 22 North of Runway 23, southwest of Runway 5	Black-billed Cuckoo (Coccyzus erythropthalmus)	GCN – Very Important	Conservation Concern
			Blue-winged Warbler (Vermivora pinus)	GCN – Most Important	Conservation Concern
			Prairie Warbler	GCN – Most	Conservation
			(Dendroica discolor)	Important	Concern
			Brown Thrasher <sup>2</sup> ( <i>Toxostoma rufum</i> )	Special Concern GCN – Very Important	
			Yellow-breasted Chat (Icterus virens)	Endangered	
			Fox Sparrow (Passerella iliaca)	N/A	Conservation Concern



			New England Cottontail	GCN – Most	Proposed
			(Sylvilagus transitionalis)	Important	Threatened
Grasslands	Little Bluestem and other warm-season grasses, interspersed with various forbs such as goldenrods, asters, Common Mullein, Evening Primrose, Bedstraw, English Plantain, Roundheaded Bush-clover, Queen Anne's Lace, etc.	Runway 5 Runway 23 Runway 33	Yellow Thistle (Cirsium horridulum))	Endangered	
			Tufted Hairgrass (Deschampsia flexuosa)	Special Concern	
			Field Paspalum ( <i>Paspalum laeve</i> )	Threatened	
			Upland Sandpiper (Bartramia longicauda)	Endangered GCN – Most Important	Conservation Concern
			Hudsonian Godwit (Limosa haemastica)		Conservation Concern
			Northern Harrier (Circus cyaneus)	Endangered GCN – Most Important	
			Short-eared Owl (Asio flammeus)	Threatened (wintering) GCN – Important	Conservation Concern
			Horned Lark (Eremophila alpestris)	Endangered GCN – Most Important	
			Eastern Meadowlark (Sternella magna)	Threatened GCN – Most Important	
			Grasshopper Sparrow (Ammodramus savannarum)	Endangered GCN – Most Important	
			Savannah Sparrow (Passerculs sandwichensis)	Special Concern GCN – Important	
			Bobolink (Dolichonyx oryzirous)	Special Concern GCN – Very Important	
Palustrine Open Water (pond) and	Along the shoreline: Red Maple, willow sp., American Sycamore in tree layer; alder,	21	Eleocharis quadrangulata var. crassior (a spike-rush)	Endangered	
fringing emergent	Maleberry in shrub layer;  Phragmites, cattail, various other emergent vegetation		Clasping-leaved Water- horehound	Special Concern	
shorelines	in herbaceous layer		(Lycopus amplectens) Whorled Pennywort (Hydrocotyle verticillata)	Endangered	
			Pied-billed Grebe (Podilymbus podiceps)	Endangered Most Important	Conservation Concern
			American Bittern (Botaurus lentiginosus)	Endangered GCN – Very Important	Conservation Concern
			Least Bittern (Ixobrychus exilus)	Threatened GCN – Most Important	Conservation Concern
			Snowy Egret* (Egretta thula)	Threatened GCN – Most Important	Conservation Concern
			Great Egret* (Ardea alba)	Threatened GCN – Very Important	
Estuarine Salt	Spartina patens, Spartina	1, 19, 20, 25;	Lilaeopsis chinensis	Special Concern	
Marsh and	alterniflora, Juncus gerardii,	Surrounding	Tufted Hairgrass	Endangered	
adjacent brackish water marshes	Distichlis spicata, Salicornia virginica., Limonium	Runway 5, east of	Bayonet Grass (Boboschoenus	Special Concern	
marshes		Runway 23	maritimus)		



	carolinianum Atrinlovan		Scot's Louage	Endangorod	
ĺ	carolinianum, Atriplex sp.;		Scot's Lovage	Endangered	
	Iva frutescens		(Ligustricum scothicum) Seaside Dock	Consist Comment	
				Special Concern	
			(Rumex persicarioides)	Throatoned	
			Canada sand-spurry	Threatened	
			(Spergularia canadensis)	5 L LOON	
			American Bittern	Endangered GCN –	Conservation
				Very Important	Concern
			Least Bittern	Threatened GCN –	Conservation
				Most Important	Concern
			Snowy Egret*	Threatened GCN –	Conservation
				Most Important	Concern
			Great Egret*	Threatened GCN –	
				Very Important	
			Northern Harrier	Endangered	
			Short-eared Owl	Threatened	Conservation
				(Wintering	Concern
				Populations)	_
			Saltmarsh Sparrow	Special Concern	Conservation
			(Ammodramus	GCN –Most	Concern
			caudacutus)	Important	
			Seaside Sparrow	Threatened GCN –	Conservation
			(Ammodramus maritimus)	Very Important	Concern
Rocky	Fucus; Ascophyllum	1	Purple Sandpiper	N/A	Conservation
Shoreline			(Calidrus maritima)		Concern
Barrier Beach	Beach Grass, Seaside	1	Sea-coast Angelica	Endangered	
Strand,	Goldenrod		(Angelica lucida)		
associated			Seabeach Sandwort	Special Concern	
dunes and			(Honckenya peploides)		
sand flats			False beach-heather	Threatened	
			(Hudsonia tomentosa)		
			Sickle-leaved Golden	Endangered	
			Aster	GCN - Important	
			(Pityopsis falcata)		
			Seabeach Knotweed	Special Concern	
			(Polygonum glaucum)	GCN - Important	
			American Oystercatcher*	Threatened GCN –	Conservation
			(Haematopus palliatus)	Very Important	Concern
			Piping Plover	Threatened	Conservation
			(Charadrius melodus)	GCN – Most	Concern
				Important	
			Hudsonian Godwit	No Status	Conservation
					Concern
			Gull-billed Tern	No Status	Conservation
			(Gelochelidon nilotica)		Concern
			Least Tern	Threatened	Conservation
			(Sterna antillarum)	GCN – Most	Concern
				Important	
			Common Tern*	Special Concern	
			(Sterna hirundo)	GCN - Important	
			Horned Lark	Endangered GCN –	
				Most Important	
Poquonnock	Eelgrass beds, Sea Lettuce	Between R23	Pied-billed Grebe	Endangered	Conservation
River / Baker	(Ulva sp.) and other marine	& Parcels 1 &		GCN – Most	Concern
Cove and LIS	algae	18 / west of		Important	
			1		1



Runways 5 and	Horned Grebe	No Status	Conservation
15			Concern
	Bald Eagle	Threatened	Conservation
		GCN – Important	Concern
	Least Tern	Threatened	Conservation
		GCN – Most	Concern
		Important	
	Common Tern*	Special Concern	
		GCN - Important	

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

Additionally, the USFWS IPaC Online Screening Tool was referenced to obtain information on species listed by the federal Endangered Species Act. An IPaC report generated for this project (USFWS IPaC, 2015) identified one rare mammal species - the Northern Long-eared Bat (*Myotis septentrionalis*) - and 23 migratory bird species with distributional ranges that include the project area. A copy of the IPaC report is provided in Appendix B. These species are also included in Table 5.8.1 below.

**Rare Habitats:** Critical habitats were also identified within the project area. These habitats and their corresponding parcel numbers (See Appendix A) within the project area are listed as follows:

Coastal Woodland/shrubland (Parcel Nos. 1, 18, 21, 22, 25, 26)

Other habitats considered to be of conservation concern (Dowhan and Craig, 1976) that occur within the project areas include the following:

- Salt Marsh (located on Parcels 1, 18, 19, 20, 21, 25, and 26 but generally outside of or away from the impact areas, with the possible exception of Parcels 1 and 19).
- Coastal Sand Beaches and Dunes (Parcel No. 1)
- Offshore Island (Parcel No. 1 Bushy Point/Island).

Dowhan and Craig (1976) specifically mentions Bushy Point in Groton (part of Parcel 1) as an excellent example of a Coastal Sand Beach and Dune ecosystem in Connecticut. Whereas Metzler and Barrett (2006) cite Bushy Point as an example location of where one might find the "Virginian glasswort tidally-flooded forb vegetation" community.

Still other habitats are expected to host species of conservation concern as identified in Table 7 above, especially the following:

- Brackish Intertidal Marsh (Poquonnock River and associated wetlands)
- Coastal Grassland (The airport property)

Tree clearing on or within the salt marsh and barrier beach habitats is limited and would have little to no impact on habitat structure, and composition since the tree layer is lacking in these habitats under existing conditions. Similarly, no tree clearing would occur in the brackish intertidal marsh or coastal grassland habitats. In contrast, tree clearing at Brushy Point/Island would change the habitat from predominantly woodland tree cover to predominantly shrubland and second growth woody coverage. Because there are sensitive plant and wildlife species that inhabit these critical habitats throughout all seasons, their presence may have implications on how



<sup>\*</sup>Species in red were noted on site during the field visits conducted in July 2015 during the preparation of this EA

<sup>&</sup>lt;sup>1</sup>CTDEEP NDDB (2016)

<sup>&</sup>lt;sup>2</sup> Szantyr (2007)

<sup>3</sup> USFWS IPaC (2015)

<sup>&</sup>lt;sup>4</sup> CTDEEP (2015)

and when the tree clearing activities should occur. The CTDEEP recommended further consultation with CTDEEP during the planning stage as specific surveys for fauna of conservation concern (particularly avifauna) may be warranted and requested by CTDEEP in order to minimize potential impacts to these species.

#### **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 in the field were conducted by wetland scientists and encompassed the same criteria 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, as may be amended from time to time, of the Natural Resources Conservation Service (NRCS) of the United States Department of Agriculture.

The Groton-New London Airport is situated on a peninsula that is surrounded by estuarine tidal wetland associated with the Poquonnock River to the east, Baker Cove to the south, and Birch Plain Creek to the west. In general, the dominant wetland community type present consists of estuarine intertidal emergent persistent wetland that are tidally influenced. As herbaceous-dominated resource areas, very few of these wetlands would be directly impacted by tree clearing activities. Tree clearing activities that would occur within wetland resource areas are limited to small Palustrine Forested Broad-leaved Deciduous Forest inclusions (Parcels 24 and 26 on the west side and Parcel 18 on the east side of the airport). Small upland inclusions surrounded by tidal wetlands may also be subjected to tree removal activities.

Using the Cowardin et al., (1979) classification system, Poquonnock River Estuary, Baker Cove, and Birch Plain Creek are estuarine intertidal waterbodies the majority of which are mapped as unconsolidated bottom with an intertidal water regime. Various small coves and embayments occur along the shorelines and support pockets of estuarine emergent (saltmarsh) wetlands described below and depicted in Appendix A.

Parcel No. 1 – Impact Area No. 1: This area is approximately five acres of upland forest scheduled for selective removal of trees in Bluff Point State Park. No wetlands were noted within this area and there is an existing service road out to Bluff Point that can be used to provide access to this proposed tree removal area.

Parcel No 1 – Impact Area No. 2: This area consists of a group of trees in a predominantly brushy and shrubby upland inclusion surrounded by tidal marsh or estuarine open water along the east shore of the Poquonnock River.

Parcel No. 1 – Impact Area No. 3: This resource area is known as Bushy Point/Island. It lies at the western end of the barrier beach between Poquonnock Cove and Long Island Sound (LIS). At low tide, Bushy Point is connected to Bushy Point Beach by cobble and sand tidal flat (Estuarine Aquatic Bed habitat). Bushy Point is vegetated predominantly by Red Oak (*Quercus rubra*), in the tree layer. Black Oak (*Quercus velutina*) is also present. Shadbush (*Amelanchier* sp.) and Sassafras (*Sassafras albidum*) saplings form a distinct understory layer. The shrub



layer is dominated by Sweet Pepperbush (Clethra alnifolia) in moist areas on the leeward side of the island, and by Northern Bayberry (Moerella pensylvanica) on the drier and windward sides. Highbush Blueberry (Vaccinium corymbosum) was also noted in the shrub layer in the moister areas and Lowbush Blueberry (Vaccinium angustifolia) in the drier areas of the shrub layer. The discontinuous herbaceous layer is dominated by Hayscented Fern (Dennstaedtia punctilobula), Canada Mayflower (Maianthemum canadense), and American Cowwheat (Melampyrum lineare). The island was searched for colonial nesting waterbirds such as long-legged waders which typically nest or roost on off shore islands, but no evidence of these birds was noted at the time of the site visit.

Parcel No. 18: Both the Transitional Surface and Approach Surface of Runway 23 traverse Parcel No. 18. Estuarine Subtidal Unconsolidated Bottom wetland (Poquonnock River) lies between the Runway and Parcel 18. The shoreline of Parcel 18 along the Poquonnock River is composed of Estuarine Intertidal Emergent Persistent wetland from the Bluff Point Access Road, waterward (west) to the river. On the east side of the Bluff Point Access Road lies a small Palustrine Forested Broad-leaved Deciduous seasonally saturated inland wetland dominated by Red Maple that is within an area identified for selective tree removal.

Parcel Nos. 19 and 20: Two resource areas are mapped for these parcels, the Estuarine Subtidal Unconsolidated Bottom open water area of Birch Creek, and its associated fringing Estuarine Intertidal Emergent persistent wetlands dominated by *Phragmites australis*.

Parcel No. 21: Parcel No 21 is the Sparkle Lake Conservation Area. The prominent wetland resource features on this parcel consist of Sparkle Pond - a Palustrine Unconsolidated Bottom Permanently Flooded/Excavated (PUBHx) open water resource; Birch Plain Creek - an Estuarine Unconsolidated Bottom open water resource; and its associated Estuarine Intertidal Emergent marshes. Birch Plain Creek and its associated marsh span the Transitional Surface area boundary associated with Runway 15 but these resources do not lie within the proposed tree removal areas. However, Sparkle Pond lies adjacent to an area designated for selective removal of trees, as it extends into the Threshold Surface and Approach Surface areas of Runway 15.

Parcel 24: An undeveloped portion of this small parcel consists of a Red Maple Swamp which would be subjected to the selective removal of trees.

Parcel 25: Birch Plain Creek and its fringing estuarine intertidal emergent marshes lie at the western limits of this parcel. However, these resource areas lie outside of the area of selected tree removal associated with Approach Surface penetrations to Runway 15.

Parcel 26: Extensive forest cover associated with this parcel includes a large block of Palustrine Forested Broad-leaved Deciduous Seasonally Tidal forest and Estuarine Emergent intertidal persistent marsh associated with Birch Plain Creek. However, these resources occur away from the proposed impact areas. A small limited area of selective tree removal is located at the southern corner of the parcel where trees may penetrate the Approach Surface area of Runway 15. The forest block in this location includes a Palustrine Forested Broad-leaved Deciduous and apparently seasonally saturated resource area that does not appear on NWI mapping. Dominant trees within this resource include Red Maple and Black Gum (*Nyssa sylvatica*).

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



	Table 8 NWI Mapped Wetland Cover Types and/or Observed Wetlands					
Parcel No.	Wetlands Cover Types and Cowardin Classification	Location	Major Wetland Plant Associations / types			
1	Palustrine Emergent Persistent, Seasonally Flooded/Saturated (PEM1E)	East of Runway 33	Various emergent graminoids and forbs			
	Palustrine Scrub/Shrub Broad-leaved Deciduous Seasonally-flooded Tidal	East of Runway 33	Iva frutescens			
	Estuarine Intertidal Emergent Persistent (E2EM5P)	East of Runway 33	Phragmites australis is dense and dominant			
	Estuarine Subtidal unconsolidated	East of Runway 33 (Majority	No vegetation identified from			
	Bottom (E1UBL)	of Poquonnock River)	literature or viewed from nearby shorelines			
	Estuarine Intertidal Emergent Persistent (E2EM1P)	Southeast of Runway 33	Spartina alterniflora			
	Estuarine Intertidal Unconsolidated Shore Irregularly flooded (E2USP)	South of Runway 33; Southeast of Runway 5	Solidago sempervirens			
	Estuarine Subtidal Aquatic Bed rooted vascular (E1AB3L)	South of Runway 33; Southeast of Runway 5	Eelgrass			
18	Palustrine Forested Broad-leaved Deciduous Seasonally Saturated (PFO1E)	East of Runway 23	Red Maple/Spicebush/Skunk Cabbage			
	E2EM1/5	East of Runway 23	Spartina alterniflora / Phragmites australis			
	E1UBL	East of Runway 33 (Majority of Poquonnock River)	No vegetation identified from literature or viewed from nearby shorelines			
19	E2EM1/5P	West of Runway 15	Phragmites dominated			
	E1UBL	West of Runway 15 (Birch Creek)	No vegetation			
20	Palustrine Forested Broad-leaved Deciduous Seasonally-tidal (PFO1R)	West of Runway 15	Red Maple / Skunk Cabbage			
21	Palustrine Unconsolidated Bottom Permanently Flooded/Excavated (PUBHx)	West of Runway 15	Undetermined			
24	PFO1R	West of Runway 15	Red Maple			
25	E2EM1/5P	West of Runway 15	Phragmites dominated			
26	PF01R	West of Runway 15	Red Maple / Black Gum			



# **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 (O<sub>3</sub>)
- Carbon monoxide (CO)
- Particulates (PM-10 and PM 2.5)
- Sulfur dioxide (SO<sub>2</sub>)
- Nitrogen dioxide (NO<sub>2</sub>)
- Lead (Pb)

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

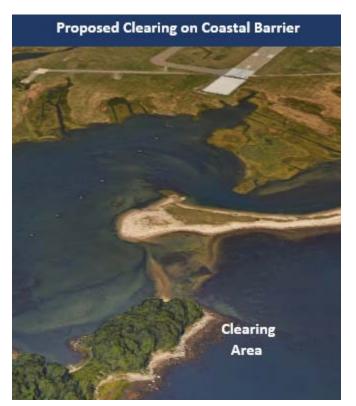
Section 176(c) of the Clean Air Act as amended in 1990, requires that Federal actions conform to the appropriate Federal or State air quality plans in order to attain the Act's air quality goals. Conformity is defined as conformity to the implementation plan's purpose of eliminating or reducing the severity and number of violations of the NAAQS and achieving expeditious attainment of such standards, and that such Federal activities will not:

- (1) Cause of 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 of any required interim emission reductions or other milestones in any area.<sup>1</sup>

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 area satisfied. No impacts are anticipated and therefore no further evaluation is needed.

#### **5.2 COASTAL RESOURCES**

A review of the Coastal Barrier System Mapper indicates that the entire airport is located in the coastal zone and the property includes portions of designated natural Coastal Barrier DCT-02 and CT-02P as defined by section 22a-94 of the Connecticut General Statues (CGS). 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.



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



Bluff Point State Park which includes a barrier beach and bluffs is an important undeveloped coastal barrier located to the east and south of the Groton-New London Airport. Any work that occurs in this area must be consistent with Coastal Barriers Resource Act (CBRA) and Connecticut Coastal Management Act (CCMA).

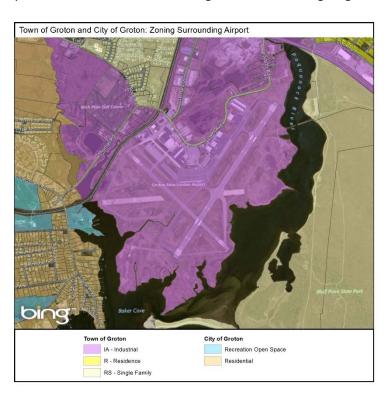
Proposed tree removals do not include any new development subject to the requirements of the Act. Nevertheless, coordination is required to address costal habitat and barriers. The proposed removals south of Runway 5 includes trees on a barrier island area. During the design process, CAA will coordinate with CTDEEP on all associated project requirements to address potential concerns.

#### **5.3 COMPATIBLE LAND USE**

Existing zoning and land use in the areas surrounding the Airport is largely consistent with the Future Land Use Map from Draft Groton Plan of Conservation and Development (2014). The removal of trees on any of the affected parcels will not impact the existing use of these parcels. Additionally, the project does not alter airport operations or flight patterns and will not have any impacts on adjacent land use or zoning as described below.

## **Runway 15 Approach**

Land use on the affected parcels at the end of Runway 15 includes the Birch Plain Golf Course, the Sparkle Point Conservation Area, and a commercial greenhouse operation. Selective tree removal has been identified on the Golf Course and the greenhouse on the north side of Thomas Road and a non-residential parcel on the south side of Thomas Road (Parcels 22, 24, 25). The selective removal of trees will not will not impact the future use or operations of these or surrounding sites. Tree clearing on golf courses can alter the difficulty, rating, and aesthetics



of the course. Within the maintained areas of the golf course, it is anticipated that clearing would include removal of tree root balls, grading and seeding, and repairs to any damaged areas. While landscaping is not eligible for funding under FAA projects, purchase of an avigation easement could include the costs for reasonable improvements to the property to maintain the quality of the golf course.

## **Runway 33 Approach**

Land use at the end of Runway 33 consists exclusively of Bluff Point State Park and Coastal Reserve; and includes an area over 10 acres for selective thinning (Parcels 1 and 18) and represents approximately 1% of the State Park. Several segments of the State trail system also traverse the area identified for the selective removal of trees. In these locations the selective removal will retain a vegetative buffer to avoid changing the overall character of this section. It is anticipated that the potential removal of trees

will not impact land use or zoning, or the continued public use of either the trails or the park itself.

# **Runway 23 Approach**



Locations for the potential selective removal of trees have been identified on Airport property and within a small area of Bluff Point State Park and Coastal Reserve (Parcel 18). As noted above, the potential removal of trees within the State Park is not anticipated to impact either zoning or the continued public use of this area.

## **Runway 5 Approach**

Parcel 1 delineated for selective removal, is located at the end of Runway 5 within an undeveloped area of Bluff Point State Park and Coastal Reserve on the peninsula that extends into the Poquonnock River. This removal area is less than 1.5 acres and the potential selective removal of trees within the State Park is not anticipated to impact the continued public use of this area.

Tree removal activities will be coordinated with the CTDEEP, and will require specific approval during the design and permitting process. Specific tree removal means and methods, and other conditions are anticipated to be required by CTDEEP. 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 is not anticipated to impact the existing use of these parcels.

#### **5.4 CONSTRUCTION IMPACTS**

The affected parcels related to obstruction removal for the Airport are generally undeveloped. At the end of Runway 15 on the opposite side of Thomas Road is the Birch Plain Golf Course and a facility with greenhouses.

Potential impacts from the removal of trees are not expected to be significant. Tree removal activities may produce temporary environmental disturbances, such as noise from equipment, air quality impacts from dust, minor soil erosion and sedimentation, and 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 Stormwater Pollution Control Plan (SWPCP) 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. The project design will required a maintenance and protection of traffic plan, as well as coordination with the Town and City of Groton.

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

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



The proposed Project includes the removal of obstructions (trees) associated with FAA design standards and Federal Aviation Regulations (FAR) Part 77 approach surface within the Bluff Point State Park in order to maintain safe, navigable airspace beyond the ends of runways.

The project will require selective thinning of trees within Bluff Point State Park in three separate locations. In addition, a section of the State Trail System traverses a tree removal areas in the park near the end of Runway 33. The affected areas of the park is not a developed with any facilities, and consist of a mature stand of

trees, available for hiking and passive recreational use. Upon completion of the tree thinning operation, the use and access to these areas of the State Park including the trail system will remain unchanged.

The CAA understands the protections afforded the three designated areas, and will work with CTDEP to address applicable statues and regulations. A pre-permitting meeting will take place prior to the initiation of the next phase. As the project advances into the permitting phase, more detail regarding the specific trees to be removed and the methodology used for their removal will be thoroughly coordinated with the CTDEEP and other regulatory agencies. Tree removal methodologies will proceed as directed in the project permits if issued by CTDEEP.



Overall the project does not alter airport operations or flight patterns, and will not directly impacts recreational uses or activity. Hiking and passive recreational areas will be exposed to some additional sunlight, but no prevention of any intended activities.

#### **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 are mapped in the vicinity of the affected parcels:

- Ninigret and Tinsbury, 0-5% slopes (21A)
- Haven and Enfield soils, 0-5% slopes (32A)

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 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 5.17). 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 "areasensitive" 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 (e.g., are protected by the Migratory Bird



Treaty Act). Avifauna 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 avifaunal populations and are also important for other, larger, forest-dwelling 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. Most of the forest blocks at GNL Airport that lie within the obstruction removal area are smaller than 125 acres. In contrast, the forest block at Bluff Point State Park to the east of the airport exceeds 400 acres. However only less than 10 acres of selective clearing is anticipated for the Bluff Point forest block, representing an impact to forest canopy cover from this block of less than 3%.

As a result of the Proposed Action, a preliminary estimate of Impact to tree coverage (either through potential clear cut or patch cut treatments) within existing forest habitat blocks associated with each airport runway is as follows:

- Runways 15 Approximately 15-acres total of scattered patch cuts throughout an undeveloped and mixed use land area.
- Runway 23 Approximately 1-3 acres out of the existing 400+ -acre contiguous forest block in Bluff Point State Park.
- Runway 33 Approximately five (5) acres out of an existing 400+ -acre contiguous forest block in Bluff Point State Park.

Regardless of the limited value of the forests to interior avifauna, the forested habitat blocks at Groton/New London 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



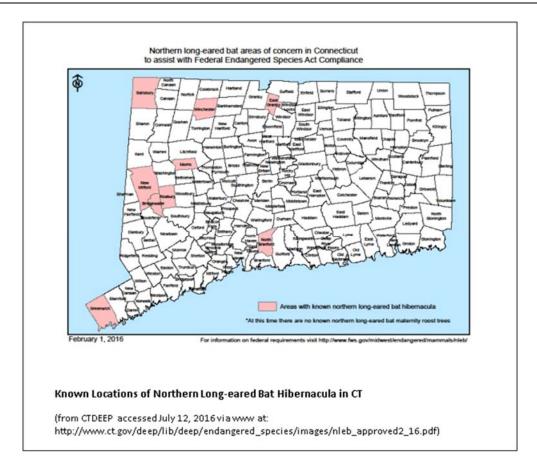
forces of wind and water. Implementation of erosion and sedimentation control BMPs would further reduce the risk of soil loss from the occasional areas where limited amounts of soil disturbance might occur from equipment access.

Many of the species reported by the natural resource regulatory agencies are dependent upon the open water or emergent wetlands (e.g., Pied-billed Grebe, Least Bittern, American Bittern), salt marsh (e.g., wintering American Bittern, Snowy Egret, Seaside Sparrow, Saltmarsh Sparrow), coastal grassland habitats (e.g., wintering Short-eared Owl, Upland Sandpiper) and barrier beach (e.g., American Oystercatcher, Least Tern, Hudsonian Godwit) where no tree work is proposed. Therefore, impact to obligate marsh-dwelling, grassland-dwelling, and coastal barrier-beach dwelling species would be avoided. Removal of the mature tree cover from within the obstruction removal areas at Groton-New London Airport in the manner discussed above would actually serve to improve the habitat for some of the species of conservation concern identified by the CTDEEP and USFWS as having potential to occur within the project area such as the New England Cottontail, the Black-billed Cuckoo (*Coccyzus erythropthalmus*), Prairie Warbler (*Setophaga discolor*), Blue-winged Warbler (*Vermivora cyanoptera*), Fox Sparrow (*Passarella iliaca*), and Yellow-breasted Chat (*Icteria virens*).

Conversely, those species listed by the regulatory agencies as forest interior species such as the Wood Thrush (*Hylocichla mustelina*) and the Worm-eating Warbler (*Helmitheros vermivorus*) could be negatively impacted by the loss of forest. However, for these forest-dwelling species, the loss of mature forest cover is not considered significant on a population level as it represents a small fraction of the total forested habitat block, and the suspected shrub and sapling regrowth would add vegetative structural diversity to the forest block, a feature that many forest birds utilize as supplemental foraging habitat.

The IPaC report also identified the Northern Long-eared Bat as having a distributional range that includes the project area. Tree clearing in general within the range of the Northern Long-eared Bat is a potential concern for the conservation of this species. However, pursuant to the Final 4(d) Special Rule under authority of the Endangered Species Act, the USFWS would not require surveys to determine the presence of Northern Long-eared Bat if the project site does not occur within a ¼ mile from a known hibernaculum or contain a maternity roost site. The USFWS defers to the state wildlife resource agencies for information on hibernacula and maternity site locations. The CTDEEP NDDB did not identify Northern Long-eared Bat as occurring within the project area. Based upon this information, it can be concluded that the Proposed Action would result in "not likely to effect" both the Northern Long-eared Bat and Indiana Bat. The sponsoring federal agency must request USFWS concurrence with this conclusion via a hard copy letter for documentation to accompany subsequent project permit applications.





**Conclusion:** For the forest/woodland dependent wildlife species that may occur within the forest blocks subject to tree cutting, a biological survey would likely be needed in order to remove trees during the breeding season. The parcels of issue include 1, 18, 22, and 25. The goal of the 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.

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, as long as the winter owl roost is not disturbed. This conclusion will be reviewed by USFWS and CTDEEP to determine if biological surveys and potential impacts are anticipated.



#### 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 09011C0508J, dated August 5, 2013), for New London County, the Airport lies in completely in the 100 year flood plain which includes Zone AE (elevation 11) and Zone VE (elevation 13). Zone VE is a coastal flood zone associated with the Long Island Sound with velocity hazard related to wave action.

Tree removal does not impact flood levels however it has potential to increase runoff rates. In this instance the potential for erosion during the selective removal of these obstructions is minimal as all remaining vegetation 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.

#### **5.9 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.

#### 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 those databases for hazardous materials spills and dumping, as these are the most likely to impact tree clearing activities.

None of the identified properties where tree removal activities are to take place 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.

## **On-site Tree Clearing Areas**

The only area on airport property slated for tree removal activities is a small area north of Runway 23. No hazardous materials were observed in this area.



## Off-site Tree Clearing Areas

West of the airport is an area designated for selective tree removal and a small area designated for complete tree removal. The small area for complete tree removal is located along Birch Creek. No hazardous materials were observed in this area. The area designated for selective tree removal is located on a golf course. No hazardous materials were observed in this area during the visual inspection.

Southwest of the airport an area slated for selective tree removal is located in a small residential development. No hazardous materials were observed on any of the properties located in this area.

Several areas designated for either selective or complete tree removal are located to the east and south of the airport. These areas are all located within the Bluff Point State Park. A small island offshore, also within the park, is designated for complete tree removal. A visual survey could not be conducted of the island due to access issues. Due to the restricted access issues, the potential for hazardous materials to be encountered on the island is considered to be extremely low. The areas of selective tree removal in Bluff Point State Park are near hiking trails. No hazardous materials were observed 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 Groton-New London 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). As such, impacts to such resources are not anticipated.

#### 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

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

## **Runway 33 Approach**

A contiguous area of selective thinning has been identified on Parcels 1 and 18 in the Bluff Point State Park and Coastal Reserve. The entire peninsula consists of the Park and Reserve; there is no residential development on the peninsula. The only "development" in this park is a parking area located near Industrial Drive and Depot Road and a State Trail system for non-motorized use. The selective thinning will occur in the vicinity of the trail in several locations, but the property will be left in an undeveloped state.

## Runway 23 Approach

An area of on-airport selective removal has been identified at the end of Runway 23 in the vicinity of South Road. A small residential area is located on both sides of South Road in this industrially zoned and developed area. The selective removal of trees in this location is limited to minor regrowth, as the affected area has been cleared in the past. The removals will not result in any change to views into the airport. It may potentially improve views to the Poquonnock River for some residences. In addition, an area of selective removal within Parcel 18 is located in an undeveloped area of Bluff Point State Park. Overall, the selective removals in the vicinity of Runway 23 are not anticipated to result in visual impacts.



# **Runway 15 Approach**

One tree removal area and two areas of selective removal have been identified at the end of Runway 15. Of the five potentially affected parcels located in the Industrial IA zone, only Parcel 22 may include a residential use conjunction with a nursery/greenhouse use on the site. As a result no significant visual impacts to residential uses have been identified.

## **Runway 5 Approach**

Obstructions to be removed at the end of Runway 5 includes one small undeveloped area within Bluff Point State Park. There are no residential uses in the vicinity and therefor no visual 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 northwest of Runway 15 on Parcel 22 which appears to include a residence as well as a greenhouse operation. Trees removal has no impact on noise from overflights and as a result 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 assistance<sup>2</sup>. 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.

The Town of Groton is not included on the 2015 CT Department of Economic and Community Development list of distressed communities, however it does include an area north of Runway 23 that is categorized by the CTDEEP "not distressed, but have census block groups with 30% of their population living below 200% of the federal

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<sup>&</sup>lt;sup>2</sup> Title VI, 42 U.S.C. § 2000d et seq, United States Department of Justice

poverty level". However, no obstruction removals have been identified in this neighborhood which is includes the streets in the vicinity of the Midway Oval and is bounded by Depot Road, Fort Hill Road and the Railroad.

The purposed of the project is to remove 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 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 private 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 CTDEEP requires that commercially viable cut materials from State property (e.g. Bluff Point State Park) 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 50 miles from the Airport, it is assumed that the distance to the Portland Depot is reasonable. Wood chips will not be spread in any removal areas. 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 AIRPORT is designated by the CTDEEP as Class GB. Class GB groundwater is found in areas with a long history of urban or industrial activity. These areas are served by public water supply systems. Groundwater with this designation is presumed not suitable for human consumption 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. Based on aerial photos there are several streams and drainage areas on the airport property. Surface waters near the Airport include the Poquonnock River, Baker Cove, and Fishers Island Sound.



These waters are all designated Class SA (coastal or marine) surface waters. Class SA designated water uses include habitat for marine fish, and other aquatic life and wildlife; shellfish harvesting for direct human consumption; recreation; industrial water supply and navigation.

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 will be constructed.

#### 5.17 WETLANDS

Palustrine vegetated 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 it is interspersed with gaps. Either way, removal of the canopy layer would impact palustrine wetland cover types as work would not be required in emergent or open water areas. Palustrine 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, removal of the woody overstory within Palustrine Forested (PFO) cover type would convert the wetland to Palustrine Scrub/Shrub (PSS) as the understory layer that is currently being shaded by the overstory would then be released to develop fully. Existing sapling hydrophytes would eventually grow to form a woody overstory canopy over time (decades). 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 expected to be insignificant. They include the following:

- The primary wetland functions 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 could potentially improve (e.g., potentially for Canada Warblers, and migratory or wintering Rusty Blackbirds).
- 3) Minimal tree removal is proposed from within the Estuarine Emergent wetlands or from within areas that would need to be accessed through bordering marshlands. Furthermore, the proposed tree removals from these areas are small and limited in extent and cover.
- 4) Release of understory hydrophytic 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 this 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.



Loss of a mature tree layer is an 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 the existing trees, or disease causes the demise of some stands (e.g., Tobacco Ringspot Virus of ash, Tobacco Mosaic Virus of Ash, Ash Yellows, etc.).

Furthermore, impact to a number of ecological functions and values would be avoided or minimized by employing BMPs for timber treatment implementation within wetlands. These BMPs include the installation and maintenance of erosion and sedimentation control measures, seasonal 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 trees 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 CTDEEP Land and Water Resources Division. To avoid impacting native plants, no chipping of felled trees would be allowed to occur within sensitive natural areas.

Therefore, soil stabilization and impact to hydric and wetland soils is not expected to be a major issue 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, and would prevent sedimentation of wetlands and waterbodies.

**Conclusion:** During the design phase of the project, coordination with the United States Army Corps of Engineers (ACOE) 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.

Coordination with the CTDEEP Inland Water Resources Division (IWRD) and CTDEEP Office of Long Island Sound Programs (OLISP) 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 CTDEEP, along with BMPs and mitigation measures. Presently the CAA is exempt from having to file Flood Management Certifications (FMC) with the CTDEEP Inland Water Resources Division (IWRD).

As this work is a state project, application to the local inland wetland and conservation commission is not required for the proposed activities.

As this project advances into the permitting phase, more detail regarding which specific trees are to be removed and the methodology used for their removal will be thoroughly coordinated with the CTDEEP and other regulatory agencies. Tree removal methodologies to be used in upland areas, within critical habitat areas, and within forested wetland areas will differ and will proceed as directed in any project permits.



## **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 the 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.			
Coastal Resources	Although the airport is located within the coastal zone, the nature of the project should not impact coastal habitat, public access, tidal, coastal and navigable waters.			
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 Bluff Point State Park and Coastal Reserve will not limit access or use of this area. As such, no impacts to 4(f) lands are expected. Coordination and approval of CTDEEP is required.			
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 Groton-New London 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	Coordination with the CTDEEP Inland Water Resources Division (IWRD) and CTDEEP Office of Long Island Sound Programs (OLISP) will be completed. There will be no filling of wetlands; however the use of timber mats, ground disturbance (soil movement and re-deposition of wetland soils) activities are would require certification and a permit. The conversion of existing forested wetlands to scrub/shrub and emergent systems will be documented and submitted to CTDEEP, along with BMPs and mitigation measures. The CAA is exempt from having to file Flood Management Certifications (FMC) with the CTDEEP Inland Water Resources Division.		
Other Categories	The analysis identified no impacts to floodplains, solid waste, or wild or scenic rivers.		



# **6.0 REPORT PREPARERS**

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

## **Federal Aviation Administration**

Richard Doucette, Environmental Protection Specialist

## **Connecticut Airport Authority**

Molly Parsons, Airport Planner Colin Goegel, Supervising Engineer

# Clough Harbour & Associates LLP (CHA)

Jeremy Martelle, Project Manager Paul McDonnell, AICP, Principal Planner Jean Loewenstein, AICP, Principal Planner Scott Rosecrans, Senior Scientist

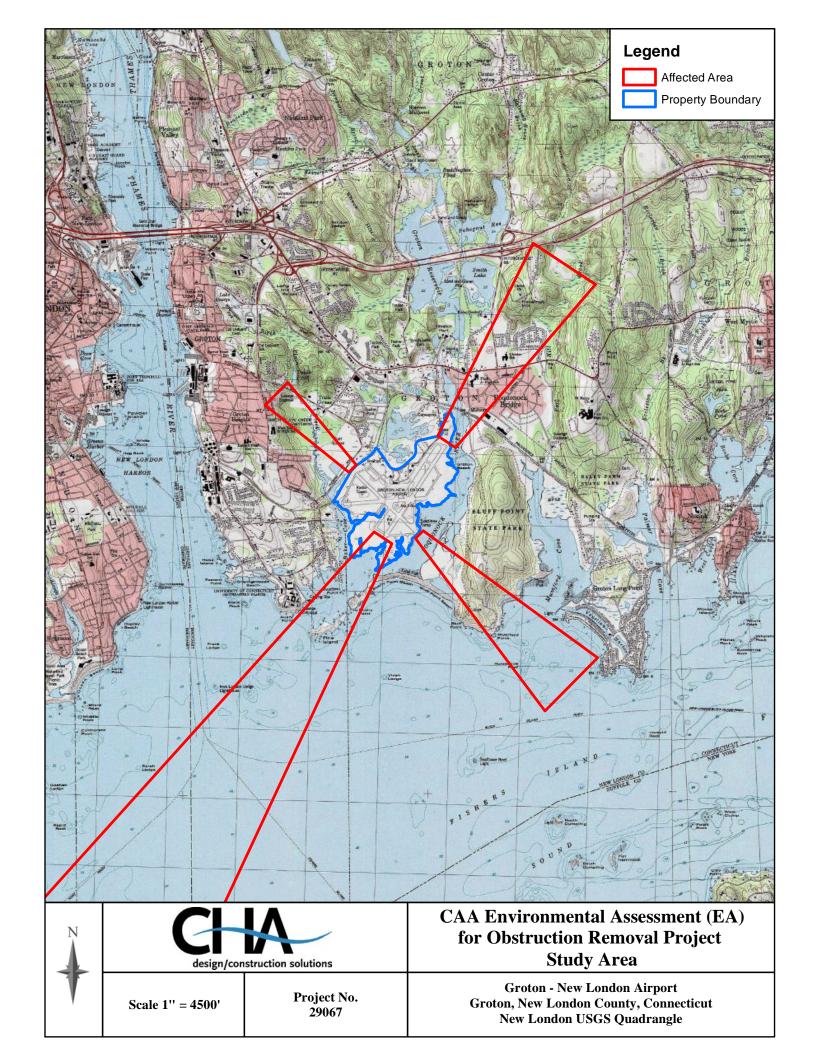
# Fitzgerald and Halliday, Inc.

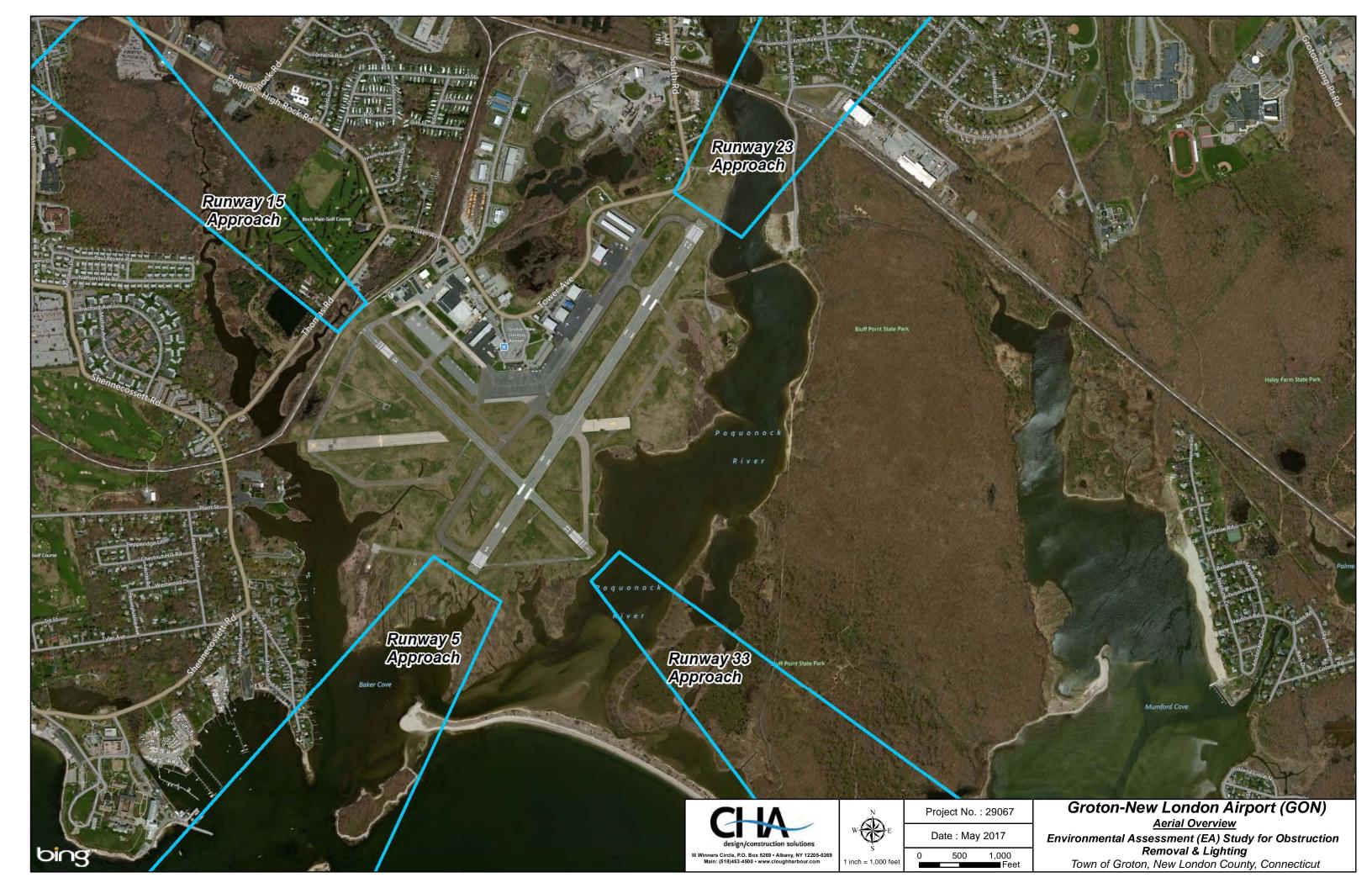
Paul Stanton, Senior Project Manager Anthony Zumba, Environmental Specialist David Laiuppa, Wetland Scientist

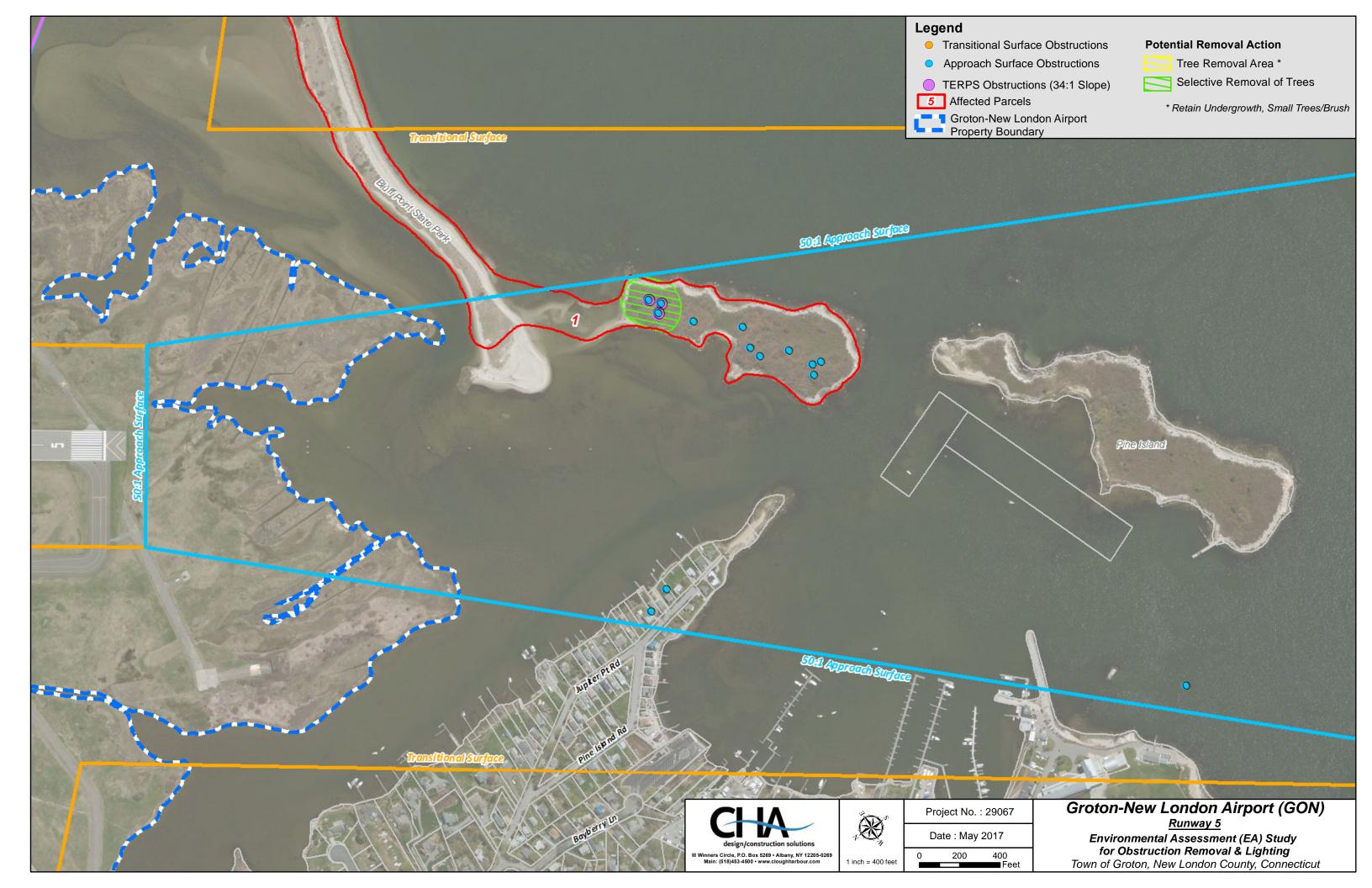


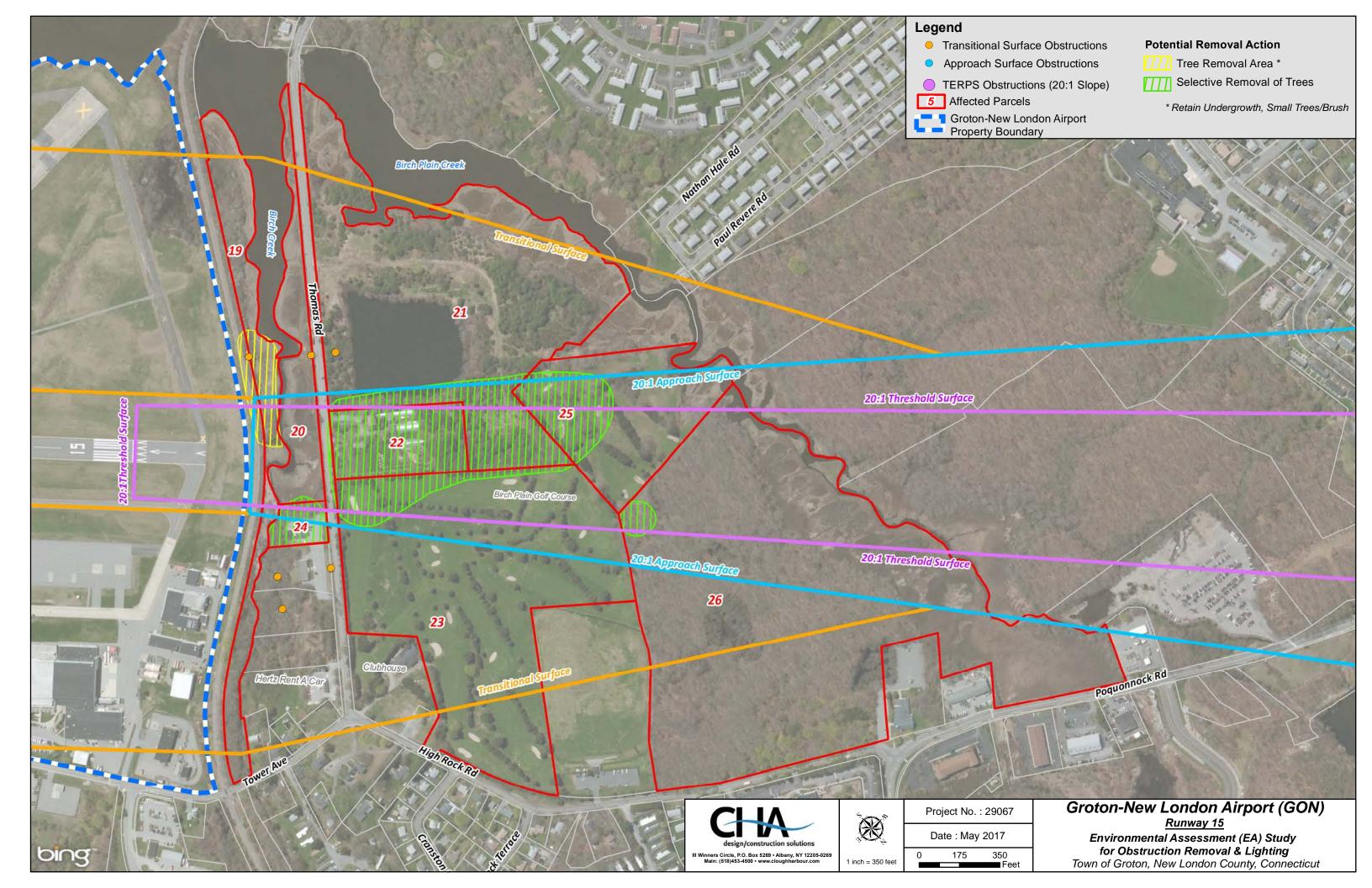
# APPENDIX A AIRPORT OBSTRUCTION MAPS

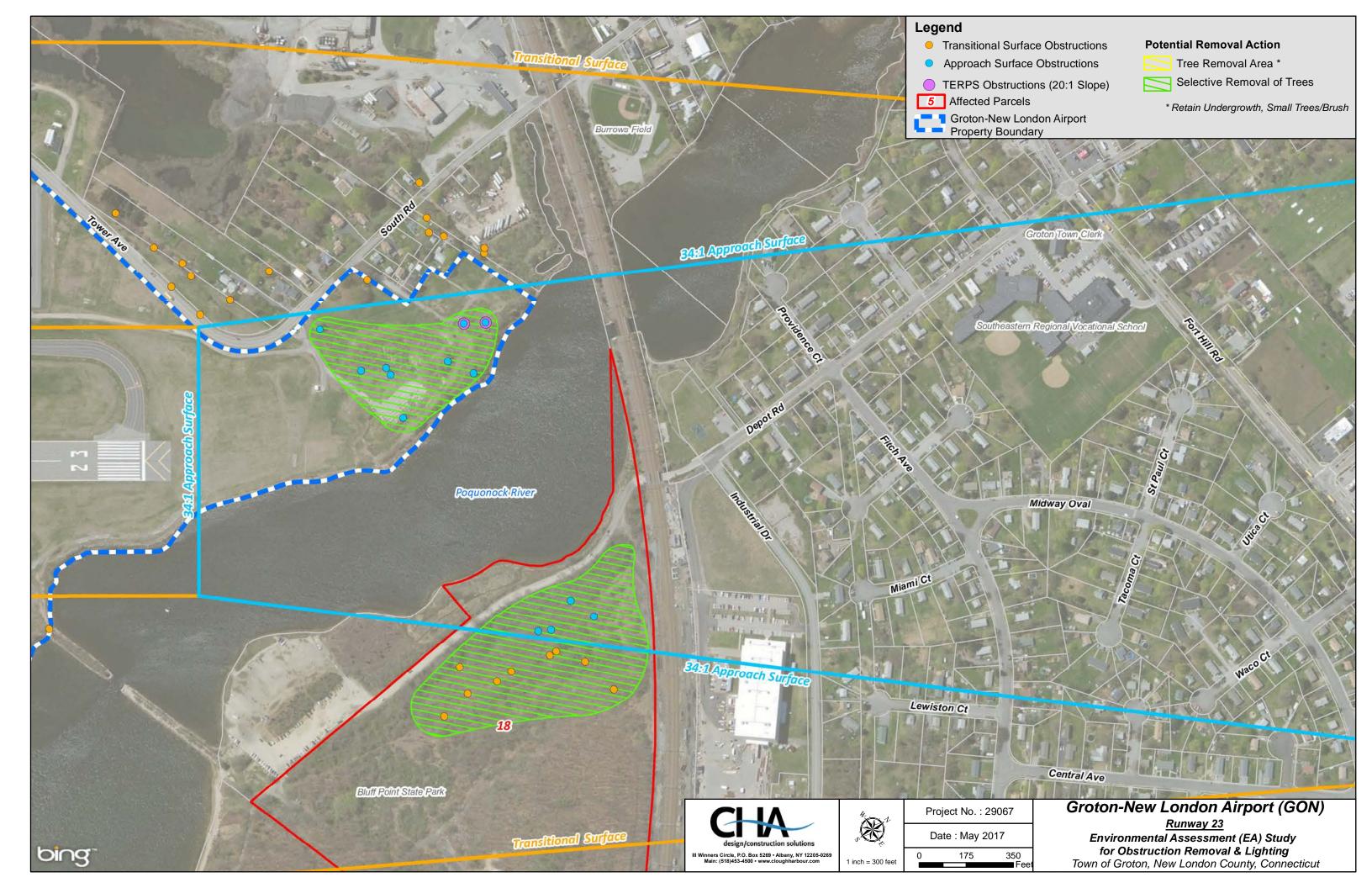


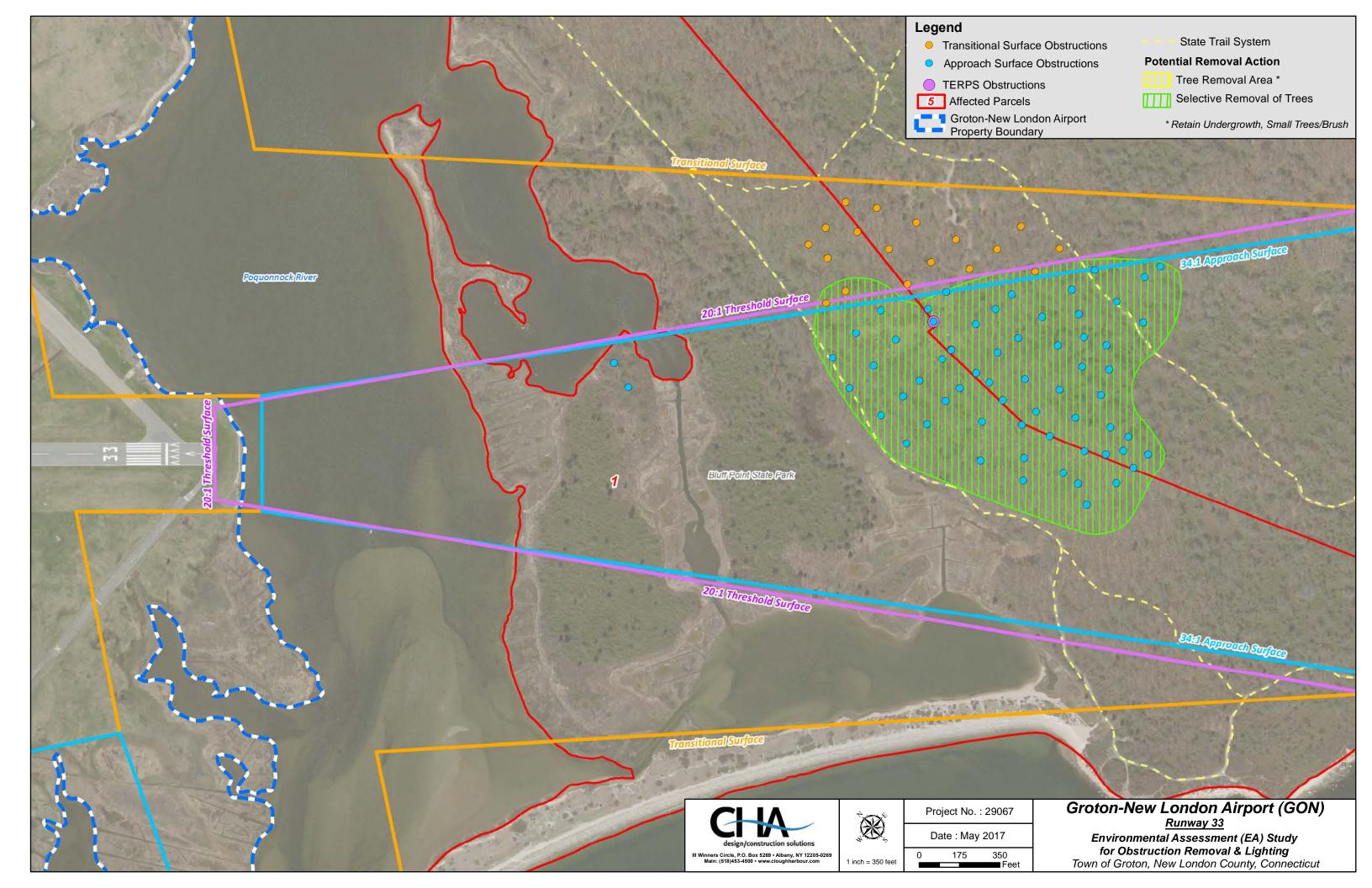


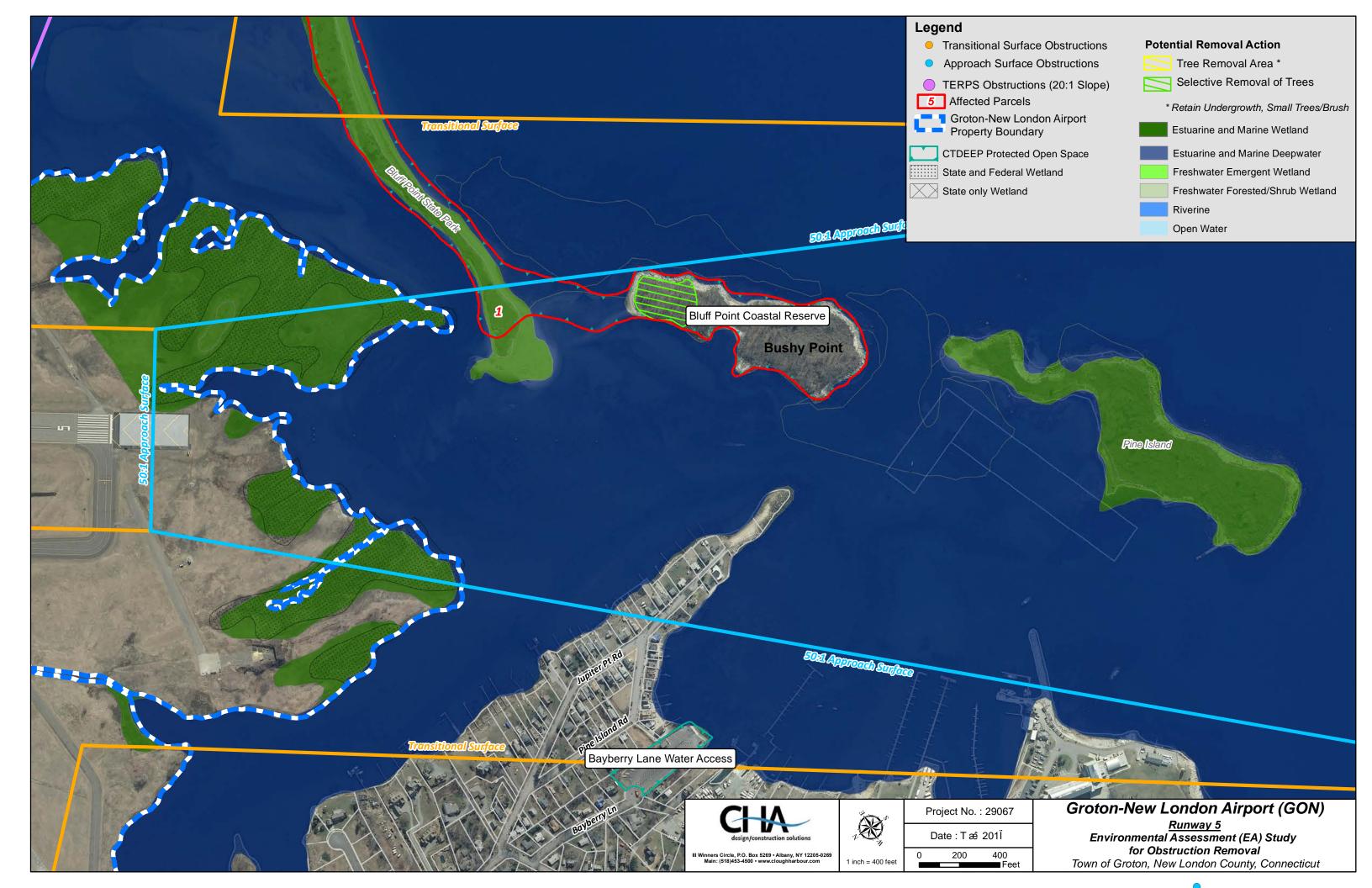


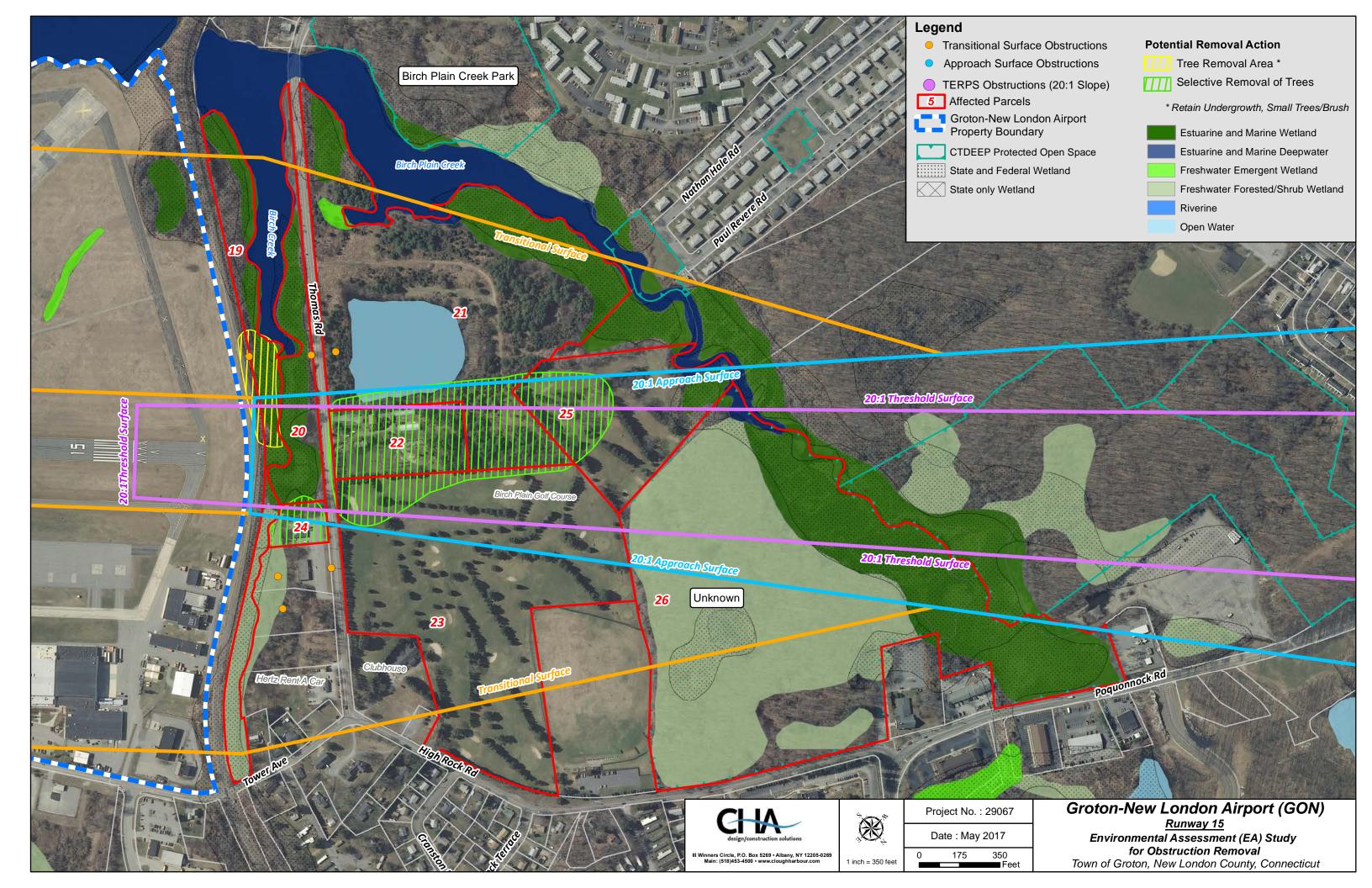


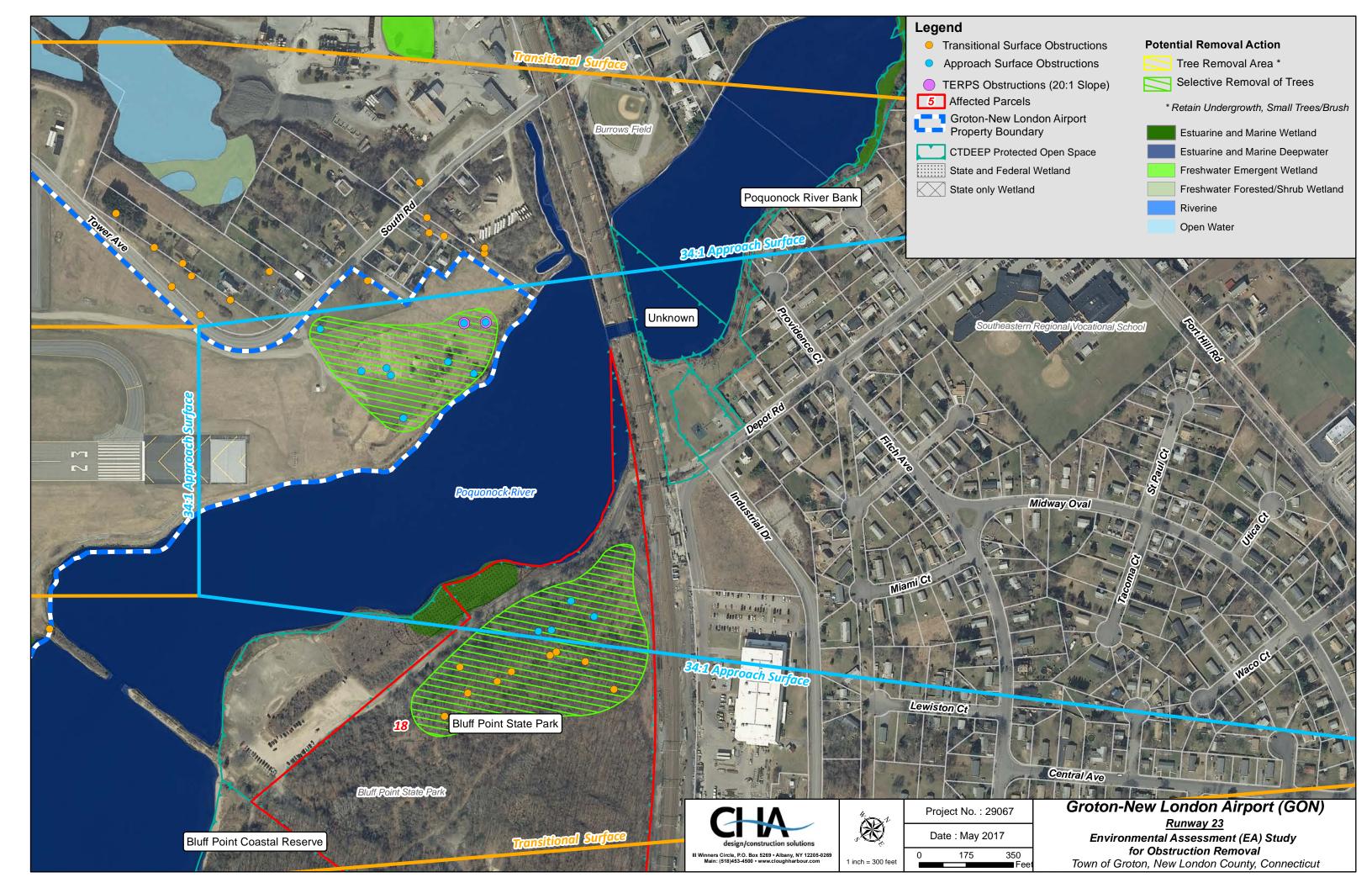


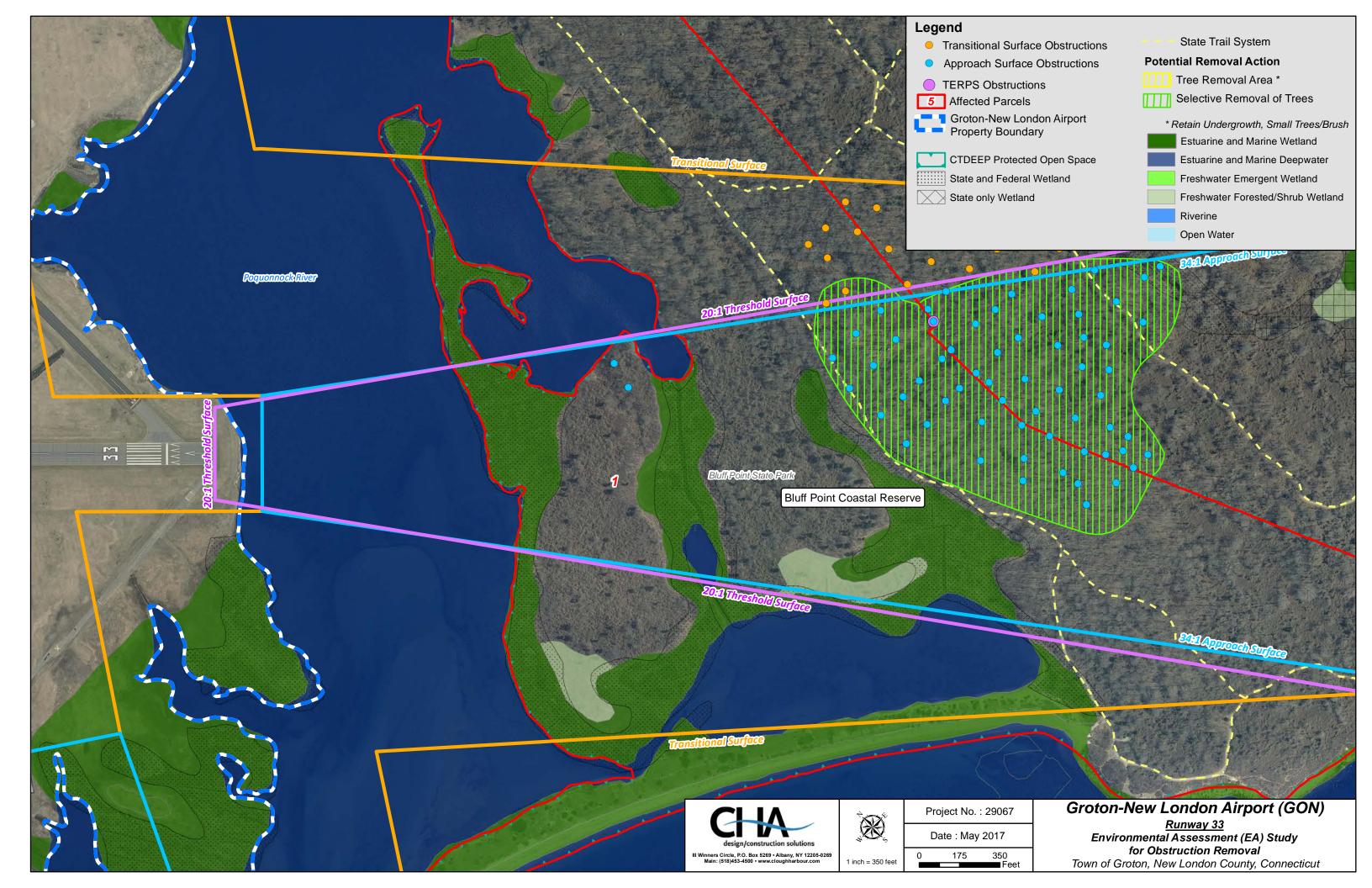












## APPENDIX B CORRESPONDENCE



#### **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 < <u>ppernerewski@ctairports.org</u>>

Cc: "Morley, Dan D." < <u>Daniel.Morley@ct.gov</u>>, "Wittchen, Bruce" < <u>Bruce.Wittchen@ct.gov</u>>,

"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 could 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 <<u>Steven.Kitowicz@ct.gov</u>>; Morley, Dan D. <<u>Daniel.Morley@ct.gov</u>>; Sullivan, Michael <<u>Michael.J.Sullivan@ct.gov</u>>; Tassinari, Brian <<u>Brian.Tassinari@ct.gov</u>> **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, 3<sup>rd</sup> 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.



# ENVIRON ENVIRON

#### 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: <u>Long-Eared Bat</u>. 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: (<u>Susi vonOettingen@fws.gov</u>).

Consultations with the NDDB 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 NDDB 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: <u>Construction Stormwater GP</u>.

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



June 9, 2015

Ms. Rita Schmidt, Mayor Town of Groton 12 Bank Street Mystic, CT 06355

RE: Groton-New London Airport

Environmental Assessment for Obstruction Removal and Lighting

Connecticut Airport Authority

Dear Mayor Schmidt:

This week you received a letter from Mr. Kevin Dillon, Executive Director of the Connecticut Airport Authority, regarding Environmental Assessment for Obstruction Removal and Lighting Project. The letter references attachments for properties in your town that have been identified as potentially having an obstruction that penetrates the federally protected airspace.

The attachments were inadvertently left out of the mailing. Please find attached to this letter the referenced attachments.

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 <u>jloewenstein@chacompanies.com</u>.

Sincerely,

Robert Bruno
Director of Planning Engineering, & Environmental

Enclosure



June 31, 2015

RE: Groton-New London 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://grotonairport.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: 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 Bradly 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



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-2<sup>nd</sup> 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 <u>richard.doucette@faa.gov</u> or the CAA Director of Engineering Robert Bruno at (860) 254-5516 or <u>rbruno@ctairports.org</u>

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



#### Department of Economic and Community Development



November 17, 2015

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

> Connecticut Airport Authority NEPA Environmental Assessment for Obstruction Subject:

> > 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



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-2<sup>nd</sup> Floor Hartford, CT. 06103

RE: **Connecticut Airport Authority- Groton-New London 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 Groton-New London Airport and vicinity, in the Town of Groton, New London 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 polemounted 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://grotonairport.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 <a href="mailto:jloewenstein@chacompanies.com">jloewenstein@chacompanies.com</a> or the CAA Director of Engineering Robert Bruno at (860) 254-5516 or <a href="mailto:rbruno@ctairports.org">rbruno@ctairports.org</a>.

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\groton-new london.doc



From: Robert Bruno

**Sent:** Tuesday, January 03, 2017 12:10 PM **To:** 'Stevens, Graham' < Graham.Stevens@ct.gov>

Cc: Kevin Dillon (kdillon@bradleyairport.com) <kdillon@bradleyairport.com>

Subject: Groton Obstruction Removal EA

#### Graham,

I hope you had a great Holiday. I wanted to pass along information on the approaches that the CAA is proposing to remove obstructions within at Groton New London Airport. There was a lot of information presented at the meeting and I wanted to make sure you that you have the correct information. The information provided at the public hearing showed a full clearing option for all surfaces, a no cut option and a proposed modified clearing plan. The CAA is recommending the modified clearing plan which clears the Threshold Siting and Terps Surfaces, not the full Part 77 surfaces. We are proposing to clear the 20:1 surface for runways 15,33 and 23 along with the 34:1 for the runway 5 approach. The 34:1 is required for Runway 5 due to the ILS approach therefore a 20:1 clearing would not protect the ILS approach. Runway 5,23 and 33 approaches all have obstructions on Bluff Point with the largest area in the Runway 33 approach. In an effort to reduce the overall selective clearing the CAA along with FAA agreed to the clearing of Threshold Siting and Terps surfaces only and not the full Part 77 Surfaces. We will be setting up a meeting in the very near future to discuss. Please let me know if you need any additional information,

Thanks, Bob

Robert Bruno
Director of Planning, Engineering and Environmental Services
Connecticut Airport Authority
860-254-5516
rbruno@ctairports.org



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.



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- Groton-New London 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 Groton, New London 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://grotonairport.caa-analysis.com/.

Areas of selective thinning have been identified in Bluff Point State Park, specifically proximate to Runways 5, 23 and 33. In addition the area of selective thinning east of Runway 33 is traversed by the state trail system. Finally, a beacon may also be located in Bluff Point State Park to the east of the airport. Recognizing that these are important statewide resource, we would like your office to review the locations of the potential selective thinning and beacon site as it relates to this 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 <u>jloewenstein@chacompanies.com</u> or the CAA Director of Engineering, Robert Bruno at (860) 254-5516 or <u>rbruno@ctairports.org</u>.

Sincerely,

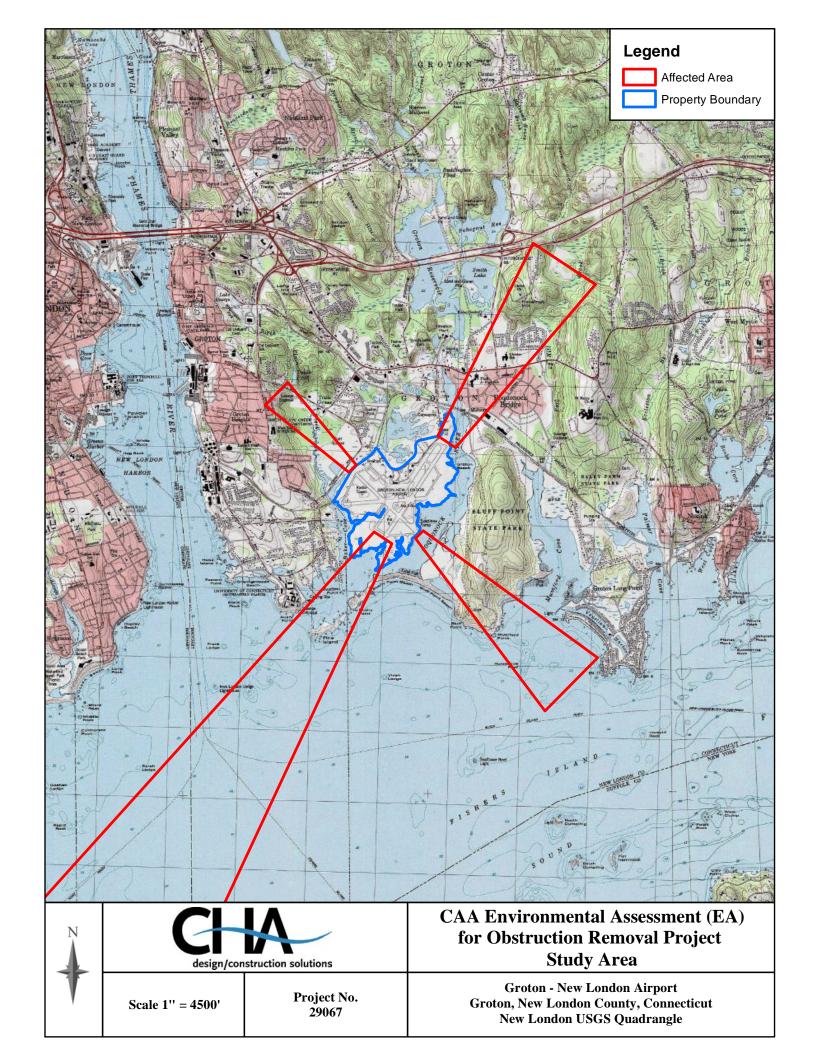
Jean Loewenstein, AICP

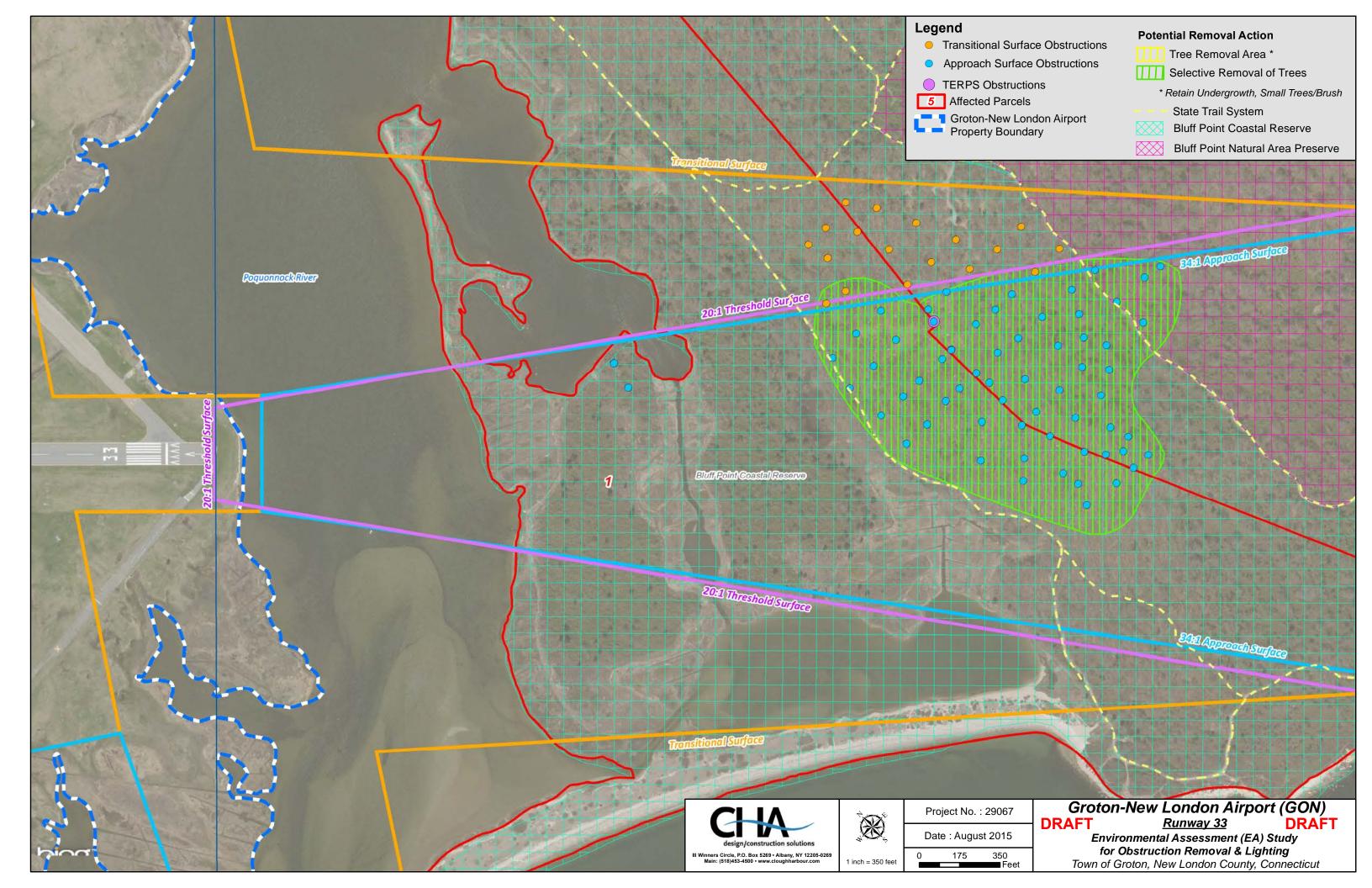
Senior Planner

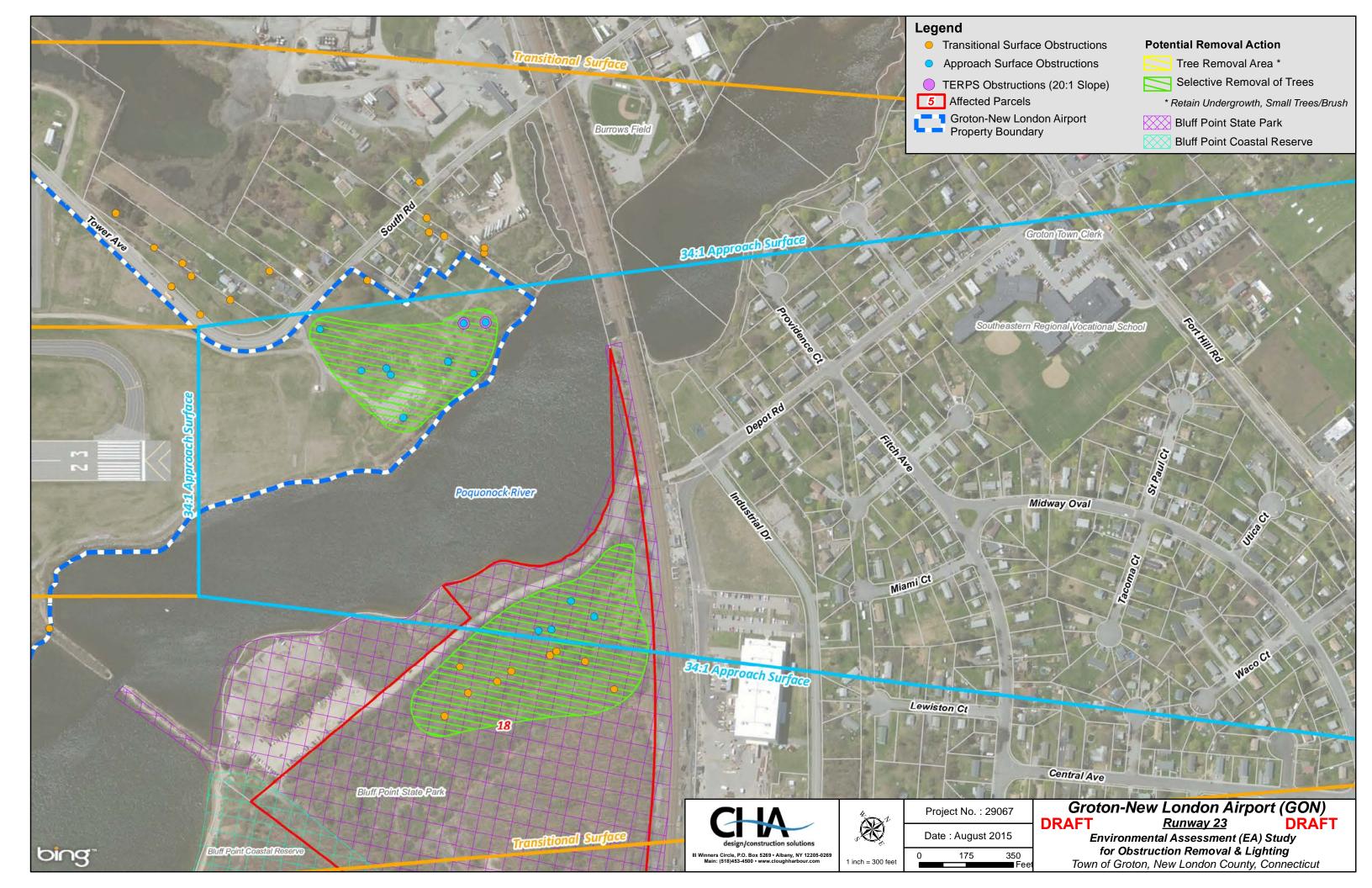
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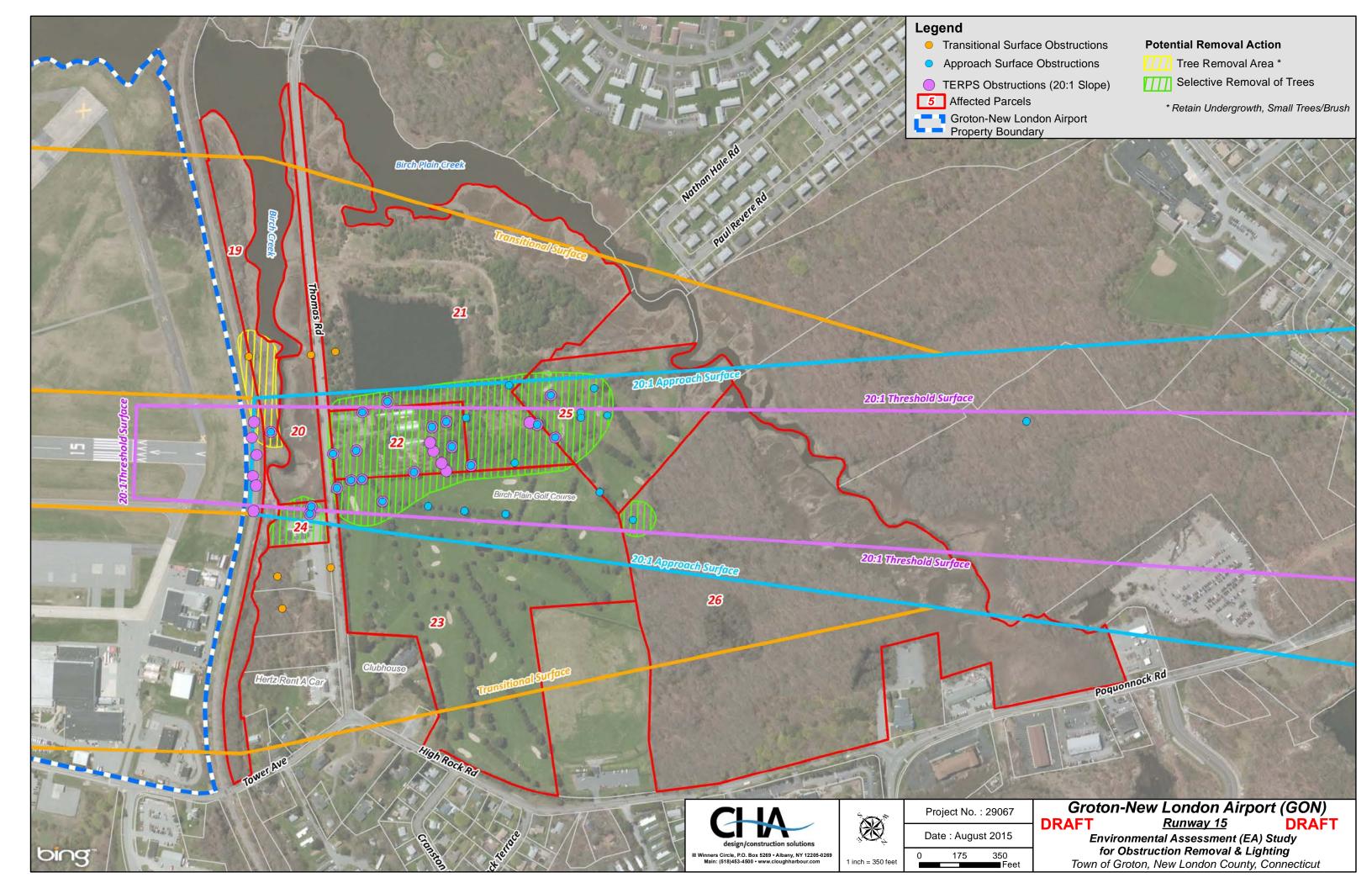
cc: Colin Goegel, Project Manager, CAA Robert Bruno, Director of Planning, Engineering and Environmental, CAA Kurt Sendlein, Airport Manager

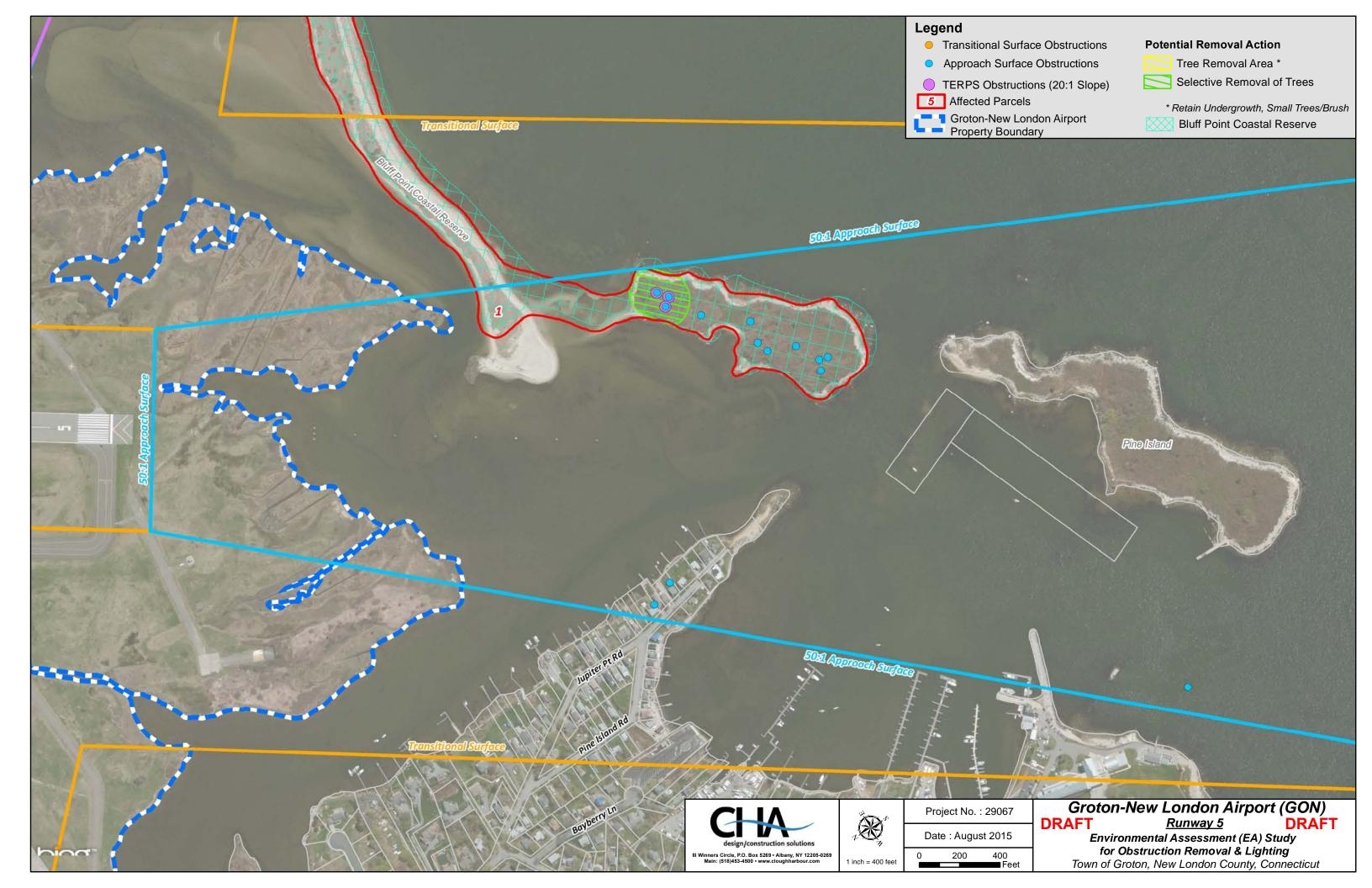












New England Region Office of the Regional Administrator 12 New England Executive Park Burlington, MA 01803

December 22, 2016

Mr. Doug Harris Tribal Historic Preservation Office Narragansett Indian Tribe of Rhode Island 4425 South County Trail Charlestown, RI 02813

Dear Mr. Harris:

Bryon Rakoff informed me that you spoke with him about a project under consideration near Groton-New London Airport in Connecticut. I am happy to provide this information on that project. The FAA is working with the Connecticut Airport Authority on Environmental Assessments (EAs) at six airports in Connecticut: Groton-New London, Hartford-Brainard, Bradley, Waterbury-Oxford, Danielson and Windham Airports. The EAs analyze the potential impacts of cutting trees on and near these airports. Consultation letters were sent to the Mohegan and Mashantucket Pequot tribes in October of 2015, when these EAs began. No response was received.

Attached is a graphic showing the areas where off-airport tree clearing might occur on Bluff Point, adjacent to Groton-New London Airport. We anticipate tree-cutting only, with no ground disturbance.

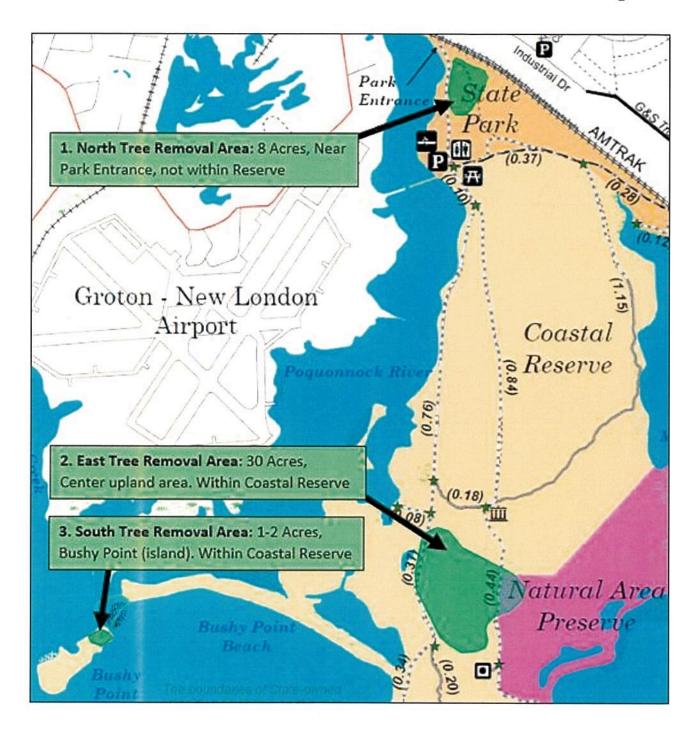
The EAs are still in draft form, and no final decisions have been made. Consultation with property owners, and others, will take several months. We anticipate no off-airport tree cutting will occur for at least a year. If you have any questions or concerns, feel free to call me any time at 781-238-7613. Happy Holidays.

Sincerely,

Richard Doucette

Environmental Program Manager

Enclosure



of Transportation
Federal Aviation

New England Region Office of the Regional Administrator 12 New England Executive Park Burlington, MA 01803

Administration

OCT 2 0 2015

# 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

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Enclosures

Administration

New England Region Office of the Regional Administrator 12 New England Executive Park Burlington, MA 01803

NCT 2 n 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.

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- http://grotonairport.caa-analysis.com
- http://windhamairport.caa-analysis.com

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#### **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

any Corbit

Enclosure



Wildlife Division • Sessions Woods WMA • Post Office Box 1550 • Burlington, CT 06013

July 14, 2016

Anthony Zemba
Fitzgerald & Halliday, Inc.
416 Asylum Street
Hartford, CT 06103
Azemba@fhiplan.com

Re: Obstruction Removal at Groton-New London Airport in Groton, Connecticut NDDB Review 201600345

#### Dear Mr. Zemba:

Materials pertaining to the above project were forwarded to me for review by the DEEP Natural Diversity Database (NDDB). According to their records, the Connecticut Airport Authority (CAA) has proposed tree removal activities within the following Connecticut Critical Habitat:

 Coastal Woodland/Shrubland – Dry to moist open woodlands on or near the coast; often stunted by wind or salt deposition from coastal storms. Subtypes include shrubland, woodland, woodland/shrubland and other/unique.

In addition, the following State-listed plant species have been documented within or in close proximity to the proposed tree removal areas:

#### • Virginia copperleaf (Acalypha virginica)

Protection Status: State Special Concern Habitat: Dry, open soils. Blooms Aug – Sep.

#### • Sea-coast angelica (Angelica lucida)

Protection Status: State Endangered

Habitat: Sea beaches, fields, and forest edges adjacent to coastal sites. Blooms Jun, Jul, Aug, Sep.

#### • Bayonet grass (Bolboschoenus maritimus ssp. paludosus)

**Protection Status: State Special Concern** 

Habitat: Salt and brackish tidal marshes. Blooms Jul - Sep.

#### • Yellow thistle (Cirsium horridulum)

Protection Status: State Endangered

Habitat: Found in fields and on the borders of salt marshes along the coast. Blooms Jun, Jul.

#### • Tufted hairgrass (Deschampsia caespitosa)

Protection Status: State Special Concern

Habitat: Moist grasslands and shores of tidal rivers, and calcareous fens. Blooms Jun – Jul.

#### • Spike-rush (Eleocharis quadrangulata var. crassior)

Protection Status: State Endangered

Habitat: Shallow pond shores. Blooms Jul – Oct.

#### • Seabeach sandwort (Honckenya peploides)

**Protection Status: State Special Concern** 

Habitat: Sandy coastal beaches. Blooms May – Sep.

#### • False beach-heather (Hudsonia tomentosa)

Protection Status: State Threatened

Habitat: Coastal sand dunes, sand hollows, and sand flats. Blooms Jun.

#### • Whorled pennywort (*Hydrocotyle verticillata*)

Protection Status: State Endangered

Habitat: Sandy swamps, shores, low grounds. Blooms Jun, Jul, Aug.

#### • Scotch lovage (Ligusticum scothicum)

Protection Status: State Endangered

Habitat: Rocky shores and borders of salt marshes. Blooms Jul-Aug.

#### • Lilaeopsis (Lilaeopsis chinensis)

Protection Status: State Special Concern

Habitat: Fresh and brackish tidal mud. Blooms Jun - Sep.

#### • Clasping-leaved water-horehound (Lycopus amplectens)

**Protection Status: State Special Concern** 

Habitat: Swamps and ponshores in sandy or peaty soils. Blooms Aug – Sep.

#### • Violet wood-sorrel (Oxalis violacea)

Protection Status: State Special Concern Habitat: Rich, moist woods. Blooms Apr- Jun.

#### • Field paspalum (Paspalum laeve)

Protection Status: State Threatened

Habitat: Damp, sandy fields, thickets, and shores. Identifiable Aug – Sep.

#### Sickle-leaved golden aster (Pityopsis falcata)

Protection Status: State Endangered

Habitat: Dry, open, sandy fields and dunes. Blooms Jul – Oct.

#### • Nuttall's milkwort (Polygala nuttallii)

**Protection Status: State Threatened** 

Habitat: Dry, open, sandy soils and rocky crevices. Blooms Jul - Sep.

#### • Seabeach knotweed (Polygonum glaucum)

Protection Status: State Special Concern

Habitat: Coastal sand beaches, dunes & shores of brackish ponds. Blooms Jul, Aug, Sep, Oct.

#### • Sea-side dock (Rumex persicarioides)

Protection Status: State Special Concern, Historic

Habitat: Brackish marshes and shores. Blooms Jul, Aug, Sep(fruits).

#### • Canada sand-spurry (Spergularia canadensis)

Protection Status: State Threatened

Habitat: Borders of salt marshes and tidal shores. Blooms Jul – Sep.

To prevent impacts to State-listed plants, I recommend performing botanical surveys for State-listed species within undeveloped tree removal areas, access routes, and staging or storage sites. I also recommend that CAA develop a project plan with a detailed narrative and maps.

Botanical field surveys should be performed by a qualified botanist when target plant species are identifiable; consequently, multiple visits to the site may be necessary. Additionally, surveys should not target just the species listed above, but should aim to identify any and all State-listed plants within the project area. A report summarizing the results of such surveys should include:

- 1. Survey protocol, including survey date(s) and duration
- 2. Description of existing site conditions
- 3. Representative photographs of the site
- 4. List of component vascular plant species within the survey area (including scientific binomials)
- 5. Data regarding population numbers and/or area occupied by State-listed species

- 6. Detailed maps of the area surveyed including the survey route and locations of State- listed plant species
- 7. Statement/résumé indicating the botanist's qualifications

To identify potential impacts to Connecticut Critical Habitats and State-listed species, the project plan for CAA's proposed tree removal should include a detailed narrative and maps which address the following:

- A proposed timeline for removal activities.
- Tree removal methodology, including the type of machinery and vehicles that will be used to complete the work.
- Locations of access routes and staging or storage areas.
- The proposed fate of tree crowns, wood chips, and other debris.
- A detailed plan for invasive species management, including a schedule for survey work and treatments.

The botanical survey report and project plan should be sent to the Natural Diversity Data Base (<a href="mailto:deep.nddbrequest@ct.gov">deep.nddbrequest@ct.gov</a>) for further review. **Please note that incomplete reports may not be accepted.** For questions regarding Connecticut Critical Habitats or State-listed plant species, please contact Nelson DeBarros (<a href="mailto:nelson.debarros@ct.gov">nelson.debarros@ct.gov</a>).

Bluff Point Coastal Reserve is an important coastal site for birds during all times of year. To determine what the potential impacts to avian wintering, migratory stopover, and nesting habitat may be from this project, we recommend that avian surveys be conducted by an avian biologist/ornithologist in the removal areas (including staging and access routes) associated with Runway 23, 33 and 6 during those representative times. A report summarizing the results of such surveys should include:

- 1. Survey protocol, including survey date(s) and duration
- 2. Description of existing site conditions
- 3. Representative photographs of the site and habitat
- 4. List of all avian species observed within the survey area and biological activity
- 6. Detailed maps of the area surveyed including the survey route and locations of State-listed birds
- 7. Statement/résumé indicating the biologist's qualifications

The avian survey report should be sent to the Natural Diversity Data Base (deep.nddbrequest@ct.gov) for further review. Please note that incomplete reports may not be accepted.

#### Additional considerations for Runway 6/Bushey Point Beach and Island

Trees located on the northwestern end of Runway 6 are utilized as wintering owl roosts for species like the short-eared owl (state Endangered). We request a more detailed explanation of which trees in this area will be removed, if any.

Piping plovers (federal and state Threatened), least terns (state Threatened) and American oystercatchers (state Species of Special Concern) nest on Bushey Point Beach from 1 April through 1 September. There are no trees on the beach therefore we do not anticipate activities associated with tree removal will impact the beach. You noted that a visit in July 2015 out to Bushey Island (off the accreting tip of Bushey Point Beach that likely was once attached to the beach) was conducted and that no colonial nesting waterbirds occurred there. Given that a significant wintering owl roost occurs in close proximity to Bushey Island, we recommend that an avian biologist/ornithologist conduct surveys of Bushey Island to determine when the best timing for tree removal would be based on the birds utilizing it during the seasons. During the shorebird nesting season (April through August) access to the island should be by boat or at low tide so as to not to disturb beach nesting birds and chicks.

Lastly, please be aware that the Bluff Point peninsula is comprised of the following designated areas: 1) the Bluff Point State Park, 2) the Bluff Point Natural Area Preserve (NAP), and 3) the Bluff Point Coastal Reserve

which was established by a special act of the Connecticut legislature for the purpose of "preserving its native ecological associations, unique faunal and floral characteristics, geological features and scenic qualities in a condition of undisturbed integrity." Tree removal activities proposed by the CAA fall within each of the three designated areas which are managed differently in accordance with State statutes and departmental regulations.

Natural Diversity Database 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. Consultations with the Database should not be substituted for on-site surveys required for environmental assessments. 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 Database as it becomes available.

If you have any additional questions, please feel free to contact me at <u>Laura.Saucier@ct.gov</u>, please reference the NDDB number in the subject line of this letter in any future correspondence.

Sincerely,

Laura Saucier Wildlife Biologist

Laur Su

cc. N. DeBarros

#### STATE OF CONNECTICUT



# **COUNCIL ON ENVIRONMENTAL QUALITY**

Susan D. Merrow *Chair* 

Janet P. Brooks

Alicea Charamut

Lee E. Dunbar

Karyl Lee Hall

Alison Hilding

Kip Kolesinskas

Matthew Reiser

Charles Vidich

Karl J. Wagener *Executive Director* 

November 16, 2016

Mr. Colin Goegel
Supervising Engineer
Connecticut Airport Authority
334 Ella Grasso Turnpike, Suite 160
Windsor Locks, CT 06096

RE: Environmental Impact Evaluation for Off-Airport Tree Obstruction Removal, Groton-New London Airport

Dear Mr. Goegel:

The Council on Environmental Quality has reviewed the Environmental Impact Evaluation (EIE) for the proposed removal of tree obstructions around the Groton-New London Airport and offers the following comments.

The Council will defer to the expertise of the Department of Energy and Environmental Protection (DEEP) regarding the potential ecological consequences of the tree-removal activity. However, the Council recommends that the EIE clarify the legal status of the lands and proposed activities.

Many of the maps and other portions of the EIE use the terms "Bluff Point State Park," "Bluff Point Coastal Reserve," and "Bluff Point State Park and Coastal Reserve" interchangeably. This does not match the Council's understanding of these properties. Bluff Point Coastal Reserve, designated by a Special Act of the Connecticut General Assembly, includes most of Bluff Point State Park and is managed according to its own regulations (Section 23-4-4). Those regulations afford the natural environment of Bluff Point Coastal Reserve far greater levels of protection than other park properties managed by DEEP. It is not clear that those regulations would allow the Commissioner to authorize tree removal, regardless of the purpose or merits of the removal. The Council's understanding of the Commissioner's authority might be incomplete, and the Council recommends strongly that the document clarify, with a legal opinion if necessary, the Commissioner's authority to allow trucks, tree-cutting equipment and tree removal itself inside the Reserve.

The EIE does not address a third category of land, the Bluff Point Natural Area Preserve. Some of the easternmost tree removals appear to be proposed to occur within the Natural Area Preserve. Natural Area Preserves are managed under

separate regulations (Section 23-5c-1) that are intended to minimize human disturbance. Those regulations prohibit vegetation removal other than that which is described in the management plan for a preserve. Again, the Council recommends that the Record of Decision clarify the Commissioner's authority to allow tree removal in a Natural Area Preserve.

If you have any questions about these comments, please do not hesitate to ask. Thank you.

Sincerely,

Karl J. Wagener Executive Director

Karl J. Wagen

cc: Robert Klee, Commissioner of Energy and Environmental Protection



November 29, 2016

Mr. Don Strait, President
Connecticut Fund for the Environment
900 Chapel Street
Upper Mezzanine
New Haven, CT 06510
dstrait@ctenvironment.org

RE: Groton-New London Airport

Environmental Assessment for Tree Obstruction Removal

Connecticut Airport Authority

Dear Mr. Strait:

This letter is in response to the CFE group email dated November 17 with the subject: "Don't Let Bluff Point's Trees Get Axe." The email was in opposition to the proposed tree obstruction removal at the Groton-New London Airport - the proposed action of the Draft Environmental Assessment/Environmental Impact Evaluation. We formally request that your email be revised and re-distributed as it presented misleading information.

First, the reference to "Clearcutting" in the email subject is misleading, as all tree removal recommended on park property is "selective thinning", where the tall trees are removed, but small trees, shrubs, and under growth is retained, in order to prevent erosion, runoff, and sedimentation.

Second, your post's reference to 75 acres is incorrect, as that acreage is associated with tree removal both on and off the Bluff Point State Park and for the Full Obstruction Removal Alternative, which is not recommended in the document. The proposed action in the draft document includes up to 40 acres of selective thinning in the Bluff Point State Park.

Furthermore your email does not identify the project's purpose which is to promote public safety and safe aircraft operations by removing tree hazards that currently penetrate federal airspace surfaces. Note that tree removal has previously been conducted on Park property. As documented in the draft report, the proposed action requires permits and approvals from CT DEEP to protect against potential environmental impacts prior to any tree removal activities.

Mr. Don Strait Connecticut Fund for the Environment November 29, 2016 Page 2 of 2

We request that CFE revised and resend the email to remove the incorrect information prior to the December 8<sup>th</sup> public hearing.

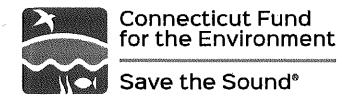
Sincerely,

Robert J. Bruno

Director of Planning,

Engineering & Environmental Services

CC: Melissa Schlag, Communications Coordinator (mschlag@ctenvironment.org)
Sarah Ganong, Director of Member Engagement (sganong@ctenvironment.org)
Suzanne Thompson, CFE (sthompson@ctenvironment.org)



December 5, 2016

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

RE: Groton-New London Airport Environmental Assessment for Tree Obstruction Removal

Dear Mr. Bruno,

Thank you for your letter of November 29, 2016 regarding CFE's email dated November 17 on the subject of the Airport Authority's proposed obstruction removal in the area of the Groton-New London Airport. Upon review of our initial email and the Airport Authority's draft Environmental Assessment, we recognize that CFE's initial email erroneously referred to the specifics of one of the alternatives rejected in the Assessment and not the Airport Authority's preferred alternative. We sincerely regret any confusion or misunderstandings that this may have caused.

Per your request, today, December 5, 2016, CFE will distribute a revised email correcting the information presented in the previous email of November 17. Specifically, the revised email refers to the Airport Authority's preferred alternative, selective tree obstruction removal on up to 40 acres of land throughout Bluff Point State Park, and contains language alerting recipients that our prior email referred to information that is not at issue in regard to the December 8 public hearing in Groton. A hard copy of this email is enclosed for your reference.

Again, CFE expresses its regrets for this inaccuracy. We look forward to continuing to work with the Airport Authority in an open and productive manner on the proposed obstruction removal moving forward.

Best regards

Donald S. Strait

President



November 29, 2016

Mr. Will Hochholzer
State Lands Management Program Supervisor
Division of Forestry
Bureau of Natural Resources
Connecticut Department of Energy and Environmental Protection
79 Elm Street
Hartford, CT 06106-5127

RE: Groton-New London Airport

Environmental Assessment for Tree Obstruction Removal

Connecticut Airport Authority

Dear Mr. Hochholzer:

As we have discussed, the Connecticut Airport Authority (CAA) has released the Draft Environmental Assessment (EA) and Environmental Impact Evaluation (EIE) for potential tree obstruction removal in areas surrounding the Groton-New London Airport. The EA/EIE report's availability and public hearing (December 8th) notice have been published, and are available on the study webpage: <a href="http://grotonairport.caa-analysis.com/project-documents/">http://grotonairport.caa-analysis.com/project-documents/</a>.

As presented in the report, the recommended tree removals include three areas of the Bluff Point State Park, including the Coastal Reserve and Natural Area Preserve in locations beyond the runway ends. The recommended removals consist of trees that are existing penetrations to federally-defined airport surfaces, and are thus obstructions to federal airspace.

As documented in the report, all recommended tree removal within the Bluff Point State Park property consists of "Selective Thinning", and is described as:

**Selective Thinning** includes removal of individual tall trees, with retention of small trees, brush, and scrubs to the extent practical. Stumps and roots are retained, and cut logs and branches can be removed or left in place if desired. Harvested wood is transported to the State Depot in Portland, CT.

The three selective removal areas consist of up to 40 acres of park property, as follows:

1. **North** (Runway 23): An area near the park entrance of 8 acres. The area is outside the Coastal Reserve and Natural Area Preserve locations of the Park.

Mr. Will Hochholzer Connecticut Department of Energy and Environmental Protection November 29, 2016 Page 2 of 2

- 2. East (Runway 33): A large area of 30 acres in the center of the upland area of the park. This location is within the Coastal Reserve, with a two acre portion of the Natural Area Preserve. The area identified includes trees that could penetrate the critical airspace within the next five years, which includes a small area that currently represents an airspace hazard.
- 3. **South** (Runway 5): Limited to an area of 1-2 acres of tall trees on Bushy Point Island, just east of Bushy Point Beach. This area is within the Coastal Reserve of the Park, and contains some critical airspace obstructions.

The attached page includes a copy of the Bluff Point State Park map, with an illustrated location of each of the three areas of potential selective tree thinning. As you know, this study is the first step in the process. During the review period, we hope to meet with your office to refine the study recommendations, and provide a plan that balances environmental and park protections with airport safety.

At the December 8<sup>th</sup>, 2016 public hearing, we will highlight that tree removals on state park lands requires CTDEEP approval, as well as any applicable federal and state permits. Please note that the hearing is scheduled for 6:30 – 8 PM at the City of Groton Council Chambers (295 Meridian Street).

Should you have any questions or comments regarding this study or hearing, please contact me at (860) 254-5516

Sincerely,

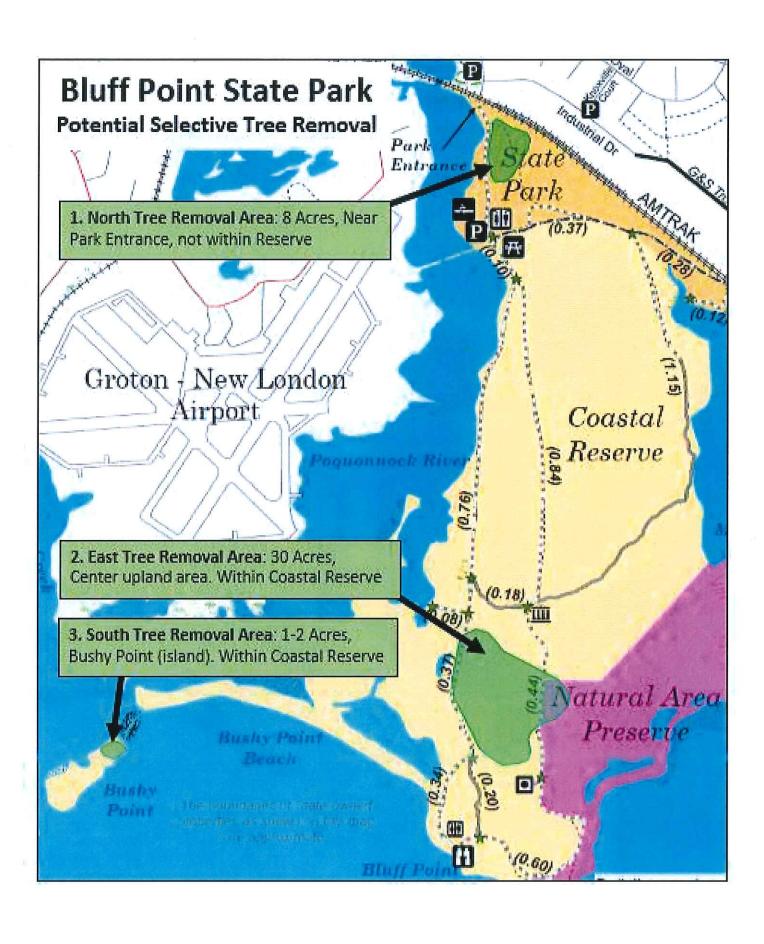
Robert J. Bruno

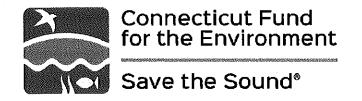
Director of Planning,

Hotest JBurno

**Engineering & Environmental Services** 

Enclosure





December 2, 2016

Mr. Colin Goegel Supervising Engineer Connecticut Airport Authority 334 Ella Grasso Turnpike, Suite 160 Windsor Locks, CT 06096

> RE: <u>Draft Environmental Assessment/Environmental Impact Evaluation for Off-</u> Airport Tree Obstruction Removal at the Groton-New London Airport

Dear Mr. Goegel,

The Connecticut Fund for the Environment ("CFE") and its bi-state program Save the Sound respectfully submit the following comments on the Draft Environmental Assessment ("EA") and Environment Impact Evaluation ("EIE") for selected tree removal both within and around the Bluff Point State Park and Coastal Reserve. CFE is a state and region-wide nonprofit organization dedicated to environmental protection and advocacy that represents approximately 5,000 members in both Connecticut and New York. Many CFE members make frequent use of Bluff Point State Park and adjacent waters of the Poquonock River and Long Island Sound. Upon review of the Draft EA/EIE, CFE believes that there are ways in which the Connecticut Airport Authority ("CAA") has inadequately addressed the likely environmental impacts and necessary mitigation of CAA's preferred alternative of modified airspace obstruction removal.

CFE recognizes that aviation safety and unobstructed airspace are necessary and reasonable objectives which require CAA to periodically remove obstructive trees in various locations throughout the state. Bluff Point State Park and Coastal reserve, however, is an unequalled and irreplaceable natural resource that provides critical ecosystem services on a regional scale. The current Draft EA/EIE does not take into sufficient account the implications of tree removal within the context of this resource or appropriate mitigation measures that would lessen or counterbalance disruptions to the local ecosystem. Accordingly, the final version of the EA/EIE must undertake a much more substantive analysis of the preferred alternative's potential to impair the natural resources of the state and fully explore mitigation measures to ameliorate such effects to the greatest extent possible.

## I. The Draft EA/EIE Fails to Consider Habitat Implications of Tree Removal

First, the current Draft EA/EIE contains an incomplete analysis of the likely habitat impacts on the numerous avian, mammal, and marine species that are present in the local ecosystem. As the largest remaining undeveloped parcel of coastal woodland on the Connecticut shoreline, Bluff Point State Park serves a critical role for its constituent species on both a local

and regional scale. For example, Bluff Point is located within a major migratory bird flyway, with at least 222 distinct species of migratory birds having been observed within the Park and Coastal Reserve. The National Oceanic and Atmospheric Administration has designated the waters around Bushy Point as essential habitat for 11 different fish species. Indeed, the immediate environs of Bluff Point serve as habitat for several state and federal endangered or otherwise threatened species, including the Piping Plover (*Charadrius melodus*), Roseate Tern (*Sterna dougallii*), American Oystercatcher (*Haematopus palliatus*), Common Tern (*Sterna hirundo*)<sup>4</sup>, Long-eared Bat (*Myotis septentrionalis*)<sup>5</sup>, and the unique New England Cottontail Rabbit (*Sylvilagus transitionalis*)<sup>6</sup>.

The Draft EA/EIE fails to adequately address the impacts that tree removal may have upon affected species within the Park and Coastal Reserve. Greater consideration of such implications is imperative, given the endangered and threatened status of several species and the overall protections afforded to avian species generally by the Migratory Bird Treaty Act and its attendant regulations. The Draft EA/EIE currently recognizes these impacts in only a cursory manner, without providing detailed, substantive information on how such impacts will be proactively mitigated. For example, when noting that the selective thinning of forest beneath the Runway 33 approach will likely destroy habitat for the Wood Thrush (Hylocichla mustelina) and Worm-eating Warbler (Helmitheros vermivorus)—which have been the subject of renewed state habitat conservation efforts<sup>8</sup>—the Draft EA/EIE summarily concludes that such species will not be impacted due to the overall size of available habitat elsewhere in the area. Relying on the remainder of the woodland in the Park and Coastal Reserve to absorb those wildlife populations that tree removal adversely affects is insufficient. Indeed, it is the uninterrupted 800 acres of woodland at Bluff Point that makes the area such a critical habitat resource. This is particularly so in regard to the proposed tree removal on Bushy Point, which by virtue of its geography, is less accessible than other portions of the Park and therefore all the more critical as undisturbed habitat.

<sup>1</sup> Long Island Sound Study, "Stewardship Areas: Bluff Point," available at <a href="http://longislandsoundstudy.net/2012/10/bluff-point/">http://longislandsoundstudy.net/2012/10/bluff-point/</a> (last visited Nov. 23, 2016).

<sup>&</sup>lt;sup>2</sup> Dave Rosgen and Gene Billings, Finding Birds in Connecticut: A Habitat-based Guide to 450 Sites, 485 (Rainbow Press 1996); see also "Bluff Point State Park Overview," EBIRD, (last updated Oct. 31, 2016) available at <a href="http://ebird.org/ebird/hotspot/L109240">http://ebird.org/ebird/hotspot/L109240</a> (last visited Nov. 30, 2016).

<sup>&</sup>lt;sup>3</sup> National Ocean and Atmospheric Administration, "Essential Fish Habitat Mapper," NATIONAL MARINE FISHERIES SERVICE HABITAT CONSERVATION, available at <a href="http://www.habitat.noaa.gov/protection/efh/efhmapper/">http://www.habitat.noaa.gov/protection/efh/efhmapper/</a> (last visited Nov. 30, 2016).

<sup>&</sup>lt;sup>4</sup> See "Bluff Point State Park Overview," supra note 2.

<sup>&</sup>lt;sup>5</sup> United States Fish & Wildlife Service, "New London County, Connecticut," INFORMATION FOR PLANNING AND CONSERVATION, available at <a href="https://ecos.fws.gov/ipac/project/S2TW75BKVVDDPNFB3TYKUYZIMI/resources">https://ecos.fws.gov/ipac/project/S2TW75BKVVDDPNFB3TYKUYZIMI/resources</a> (last visited Nov. 28, 2016).

<sup>&</sup>lt;sup>6</sup> Department of Energy & Environmental Protection, "New England Cottontail Restoration Focus Areas in CT," (last updated Oct. 5, 2016), available at

http://www.ct.gov/deep/cwp/view.asp?a=2723&q=514596&deepNay\_GID=1655 (last visited Nov. 29, 2016). 7 16 U.S.C. §§ 703-709; 50 C.F.R. § 10.13.

<sup>&</sup>lt;sup>8</sup> Gregory B. Hladky, "State Identifies Five Key Areas Critical To Protecting Threatened Bird Species," *Hartford Courant* (July 11, 2016), available at <a href="http://www.courant.com/news/connecticut/hc-ct-key-bird-areas-20160711-story.html">http://www.courant.com/news/connecticut/hc-ct-key-bird-areas-20160711-story.html</a> (last visited Nov. 28, 2016).

<sup>&</sup>lt;sup>9</sup> Connecticut Airport Authority, "Draft Environmental Assessment (EA) & Environmental Impact Evaluation (EIE) for Obstruction Removal Groton-New London Airport (GON)," 5-8 (Nov. 2016).

Rather, CAA should craft its tree-removal plans—in coordination with the Department of Energy and Environmental Protection ("DEEP") and other stakeholder organizations—to implement removal in a manner that provides a net benefit to the local ecosystem by capitalizing upon ways in which the thinning of healthy forest can create additional habitat. For example, if managed properly and prudently, the open spaces created by the preferred alternative could potentially provide increased habitat for particular species such as the imperiled New England Cottontail, <sup>10</sup> a longtime candidate for listing under the federal Endangered Species Act, <sup>11</sup> the American Woodcock (*Scolopax minor*), <sup>12</sup> and the Indigo Bunting (*Passerina cyanea*). <sup>13</sup> Although the Draft EA/EIE recognizes the potential for such habitat benefits, it includes no specifics beyond that.<sup>14</sup> As the removal of trees within the Park and Coastal Reserve will require coordination with biologists, certified foresters, and wildlife management experts as well as ultimate approval of DEEP<sup>15</sup>, CAA should begin planning how to carefully and proactively manage its proposed tree removal at the EA/EIE stage in order to ensure that habitat benefits become a reality and adverse impacts are avoided. Indeed, given the widespread interest in habitat creation for vulnerable species, CAA would likely be able to partner with interested groups in such an endeavor. 16 Likewise, in examining how the preferred alternative can be used as a vehicle for net ecosystem benefits, CAA must identify and address negative impacts that may arise due to tree removal. For example, clearing trees may result in the propagation of destructive invasive species already present within the Park and Coastal Reserve such as Asiatic Bittersweet (Celastrus orbiculatus) and Japanese Barberry (Berberis thunbergii), the latter of which some researchers suggest may be correlated with an increased prevalence the Deer Tick (Ixodes scapularis), which serves as a vector for Lyme Disease. <sup>17</sup> Similarly, the removal of trees could foster increased growth of browse and the forest understory, leading to an increase in the local White-tailed Deer (Odocoileus virginianus) population well beyond the ecosystem's carrying capacity, a problem Bluff Point has faced in the past and which required intervention by DEEP. 18 With adequate foresight and preparation, the tree removal that the preferred alternative entails can be carried out in such a way that will minimize harmful impacts to the sensitive Bluff Point ecosystem and provide select habitat benefits. As the Draft EA/EIE does not substantively consider such strategies, CFE urges that CAA take these options under serious consideration moving forward.

<sup>10 &</sup>quot;Habitat Ins and Outs," WORKING TOGETHER FOR THE NEW ENGLAND COTTONTAIL, available at http://newenglandcottontail.org/habitat/habitat-ins-outs (last visited Nov. 29, 2016).

<sup>11 &</sup>quot;Secretary Jewell Announces New England Cottontail to be Excluded from Endangered Species List," U.S. DEPARTMENT OF THE INTERIOR (Sept. 11, 2015) available at https://www.doi.gov/pressreleases/secretary-jewellannounces-new-england-cottontail-be-excluded-endangered-species-list (last visited Nov. 30, 2016).

12 "American Woodcock," DEPARTMENT OF ENERGY & ENVIRONMENTAL PROTECTION (last updated Dec. 1999)

available at http://www.ct.gov/deep/cwp/view.asp?a=2723&q=326104&depNay GID=1655 (last visited Dec. 1, 2016).

<sup>&</sup>lt;sup>13</sup> "Indigo Bunting," CORNELL LAB OF ORNITHOLOGY (last updated 2015) available at https://www.allaboutbirds.org/guide/Indigo\_Bunting/lifehistory#at\_habitat (last visited Dec. 1, 2016). Connecticut Airport Authority, supra note 9, at 5-8.

<sup>&</sup>lt;sup>15</sup> *Id.* At 3-6.

<sup>&</sup>lt;sup>16</sup> See generally "Partners," WORKING TOGETHER FOR THE NEW ENGLAND COTTONTAIL, available at http://newenglandcottontail.org/partners (last visited Nov. 29, 2016).

Carl Zimmer, "The Rise of the Tick," Outside Magazine (Apr. 30, 2013), available at http://www.outsideonline.com/1915071/rise-tick?page=all (last visited Nov. 29, 2016).

<sup>18 &</sup>quot;The Biology of Bluff Point State Park, Groton," DEPARTMENT OF ENERGY & ENVIRONMENTAL PROTECTION (last updated 2015) available at http://www.ct.gov/deep/cwp/view.asp?a=2716&q=417062&deepNay GID=1650 (last visited Nov. 23, 2016).

## II. The Draft EA/EIE Contains No Analysis Regarding Climate Change

Second, CFE is deeply concerned that the Draft EA/EIE contains zero analysis or consideration of the climate change implications of removing numerous trees in a vulnerable coastal ecosystem. Forested areas provide critical ecosystem services by functioning as carbon sinks that naturally absorb excess carbon dioxide from the atmosphere. <sup>19</sup> Due to the large size of the coastal forest present within the Park and Coastal Reserve, Bluff Point's woodlands are doubtless a critical sequestration resource. Given the current state of the Draft EA/EIE, it is uncertain as to exactly how many individual trees CAA is proposing to remove and therefore difficult to analyze the cumulative climatological impacts that such removal will have at a both a state and regional level. Likewise, the Draft EA/EIE is silent on whether the removal of airspace obstructions will lead to an increase in air traffic utilizing the Groton-New London Airport. If so, CAA must analyze the effects of increased greenhouse gas emissions from an increase in air traffic. Although anthropogenic climate change is a problem of global significance, its localized effects are especially pertinent in this case. An ICLEI and DEEP report to the Town of Groton on local climate change preparation and resiliency specifically identified both the Groton-New London Airport and Bluff Point State Park and Costal Reserve as areas that stand be adversely affected by sea level rise and the increased risk of localized flooding during weather events.<sup>20</sup> Thus, despite the state and municipal recognition of local climate vulnerability, the Draft EA/EIE does not factor this element into any of its environmental impact analyses.

#### III. The Draft EA/EIE Fails to Consider the Unique Status of Bluff Point

Finally, as the Draft EA/EIE explicitly recognizes, Bluff Point serves as an important undeveloped coastal barrier. The Park and Coastal Reserve contain a number of rare and unique habitats, including coastal woodlands, saltmarshes, sand beaches, coastal grasslands, and intertidal marshes. Many of the aforementioned at-risk species rely on the presence of these habitats at one point or another in their respective life cycles. Underlying the Connecticut General Assembly's decision in 1975 to permanently protect Bluff Point was its recognition that it was worth "preserving its native ecological associations, unique faunal and floral characteristics, geological features and scenic qualities in a condition of undisturbed integrity." In regard to the preferred alternative specifically, the unique coastal woodland ecosystem within

<sup>&</sup>lt;sup>19</sup> United States Forest Service, "Carbon Sequestration," VALUING ECOSYSTEM SERVICES, available at http://www.fs.fed.us/ecosystemservices/carbon.shtml (last visited Nov. 23, 2016)

http://www.fs.fed.us/ecosystemservices/carbon.shtml (last visited Nov. 23, 2016).

Missy Stults and Jennifer Pagach, "Preparing for Climate Change in Groton, Connecticut: A Model Process for Communities in the Northeast; A Report to the Town of Groton and Communities throughout New England from ICLEI-Local Governments for Sustainability and Connecticut Department of Environmental Protection," 7 (Apr. 2011) available at http://www.groton-

ct.gov/depts/plandev/docs/Final%20Report\_Groton%20Coastal%20Climate%20Change%20ProjectJP.pdf (last visited Nov. 30, 2016).

<sup>&</sup>lt;sup>21</sup> Connecticut Airport Authority, supra note 9, at 5-3.

<sup>&</sup>lt;sup>22</sup> See generally "The Geology of Bluff Point State Park, Groton," DEPARTMENT OF ENERGY & ENVIRONMENTAL PROTECTION (last updated 2015) available at

http://www.ct.gov/deep/cwp/view.asp?a=2716&q=398432&deepNav\_GID=1650 (last visited Nov. 30, 2016). <sup>23</sup> "Bluff Point State Park, Groton – Overview," DEPARTMENT OF ENERGY & ENVIRONMENTAL PROTECTION (last updated Aug. 18, 2016) available at

http://www.ct\_gov/deep/cwp/view.asp?a=2716&q=325178&deepNay\_GID=1650 (last visited Nov. 29, 2016).

the Park and Coastal Reserve is particularly precious given the large size of the forest parcel and that many of the trees therein are 90 to 100 years of age.<sup>24</sup>

The Draft EA/EIE, however, treats the Park and Coastal Reserve as any other parcel of private property CAA must obtain access to and not as the sensitive ecosystem and unparalleled biological resource that it is in reality. The property owner at issue is DEEP—charged with the duty of safeguarding the property and its resources—and by extension, the people of the State of Connecticut, all of whom have a public right in the use of the Park and Coastal Reserve. Any action that CAA takes at Bluff Point broadly affects the public and if CAA is not already in communication with DEEP concerning its proposal, it is imperative that it initiate such communication immediately. Given the ecological importance of the woodlands located at Bluff Point, CAA should consider additional safeguards and methods to ameliorate the impacts of the preferred alternative. In the process of identifying which trees need to be removed, CAA should, in consultation with DEEP, identify whether certain trees can simply be pruned to remove airspace obstructions rather than felled entirely. Likewise, CAA should consider replanting policies in order to prevent a net loss of trees within the Park and Coastal Reserve. For example, a one-for-one replanting program would replace those trees removed below the runway approaches with new tree plantings in other portions of the Park and Coastal Reserve that will not grow into airspace in the future. Additionally, trees could be planted in throughout the park in strategic ways that would provide overall ecological benefits, such as increased flood resiliency and soil stability in vulnerable areas or preemptive protection against encroachment by deleterious invasive species. As such action will require CAA to extensively coordinate its efforts with DEEP, these mitigation measures should be considered as soon as possible and not later, subsequent to the actual tree removal.

Respectfully submitted

Andrew W. Minikowski, Esq.

Legal Fellow

Connecticut Fund for the Environment 900 Chapel Street, Upper Mezzanine

New Haven, CT 06510

aminikowski@ctenvironment.org

203-787-0646 (ex. 108)

<sup>&</sup>lt;sup>24</sup> See Long Island Sound Study, supra note 1.



January 10, 2017

Colin Goegel Connecticut Airport Authority Via email to cgoegel@ctairports.org

Comments Re: Groton-New London Airport Tree Obstruction Removal EIE

To whom it may concern:

While we recognize that some trees may need to be removed for the safety of users of the Groton-New London Airport we favor judicious, well thought-out removal of only those trees that actually impact airport functions. Such removal should be conducted so that minimal damage is done to the surrounding habitat. We further support timing of such necessary removal so as to have the project take place during the non-breeding season for wildlife that resides in the affected area. Trees chosen for clearing should be examined closely to insure that owls (which do nest in the winter) will not be affected.

We ask that funds be provided for the planting of native wildlife friendly plants to mitigate the damage done and to discourage repopulation of the cleared areas by invasive species. It would be wonderful if some habitat mitigation be woven into a larger wildlife plan for Bluff Point, including removal of invasive plants from the "hot corner" area (parcel 18), a location beloved by birders. Thoughtful management of this project could create valuable shrubland habitat that would benefit shrub dwelling bird species and the New England Cottontail, a species of conservation concern.

We thank you for the opportunity to comment.

Sincerely;

Kathleen M. Van Der Aue, President Connecticut Ornithological Association

# ENVIRON ENVIRON

#### STATE OF CONNECTICUT

#### DEPARTMENT OF ENERGY & ENVIRONMENTAL PROTECTION

#### OFFICE OF ENVIRONMENTAL REVIEW

79 ELM STREET, HARTFORD, CT 06106-5127

**To:** Colin Goegel - Supervising Engineer

Connecticut Airport Authority, 334 Ella Grasso Turnpike, Windsor Locks, 06096

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

**Date:** January 24, 2017 **E-Mail:** david.fox@ct.gov

**Subject:** Groton - New London Airport Obstruction Removal Project

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

The document is titled an Environmental Impact Evaluation and was noticed in the Environmental Monitor as a Connecticut Environmental Policy Act (CEPA) document. However, section 15-120bb of the Connecticut General Statutes states that the CAA "shall not be construed to be a department, institution or agency of the state." Since CEPA applies to state departments, institutions or agencies, it appears that CAA is exempt from its requirements.

The Department recognizes that the need to remove obstructions to the airspace surrounding airports to ensure their safe operation will require clearing of trees beyond the airport. 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 document focus on recommending measures to consider to further minimize impacts, particularly those at Bluff Point State Park and Coastal Reserve, the only property within the State of Connecticut's system of protected open space so designated, due to the exemplary nature of the coastal habitat types present. We understand that a meeting will be called between our agencies to discuss these issues in further detail.

As noted in our scoping comments, any proposal that involves DEEP property would entail a grant of property rights from the Department. Requests for temporary or permanent property rights 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 Department is very concerned about the extent of tree removal proposed for the Bluff Point Coastal Reserve. Page 3-4 notes that FAA recognizes that off-airport clearing "is often impractical due to environmental impacts" and has defined a different approach surface, the Threshold Surface, to be utilized in such circumstances. The steeper slope of the Threshold Surface results in fewer penetrations, leading to reduced clearing.

The designations of portions of Bluff Point State Park as a Coastal Reserve and Natural Area Preserve were noted in our scoping comments; however, the additional protections afforded to these areas under the Connecticut General Statutes and through Special Acts of the General Assembly were not acknowledged in the EA text. The biological and natural heritage significance of the Bluff Point forest and Bushy Point sand spit justify the use of the more lenient Threshold Surface criteria. Protecting these resources to the maximum extent possible will be a critical factor in any decision by the Department to grant CAA property rights that could affect the condition of these critical resource areas.

Page 3-5 notes that clearing for Runways 23 and 33 could be limited to just a few tall trees (magenta dots), but that additional clearing of Approach Surface trees (blue dots) are recommended to prevent future penetrations of the Threshold Surface. CAA would work with DEEP to determine the extent of these removals. Bluff Point land should not be singled out for additional clearing to address any potential penetration of the Threshold Surface that may occur in the future based on possible growth of trees not currently penetrating this surface. The Department expects to limit tree clearing to the maximum extent possible, particularly within the Coastal Reserve, to satisfy the least restrictive FAA safety standard, using the existing height of trees, many of which are likely at or near maturity.

It appears that differential between the height of obstructions to the Threshold and the Approach Surfaces would be substantial, particularly in the case of Runway 33. The large area designated for selective removal within the Coastal Reserve has only one magenta dot and numerous blue dots. However, as noted on page 3-2, the dots are representative and there are likely many more tree penetrations. The area for selective removal ranges between 2400' to 3600' away from the runway end, so the difference in the surface heights between the 1:20 and 1:34 surfaces would be 50' to 75' (all numbers approximate). It would be instructive for reviewers if maps could be generated by using GIS data for ground elevation and Threshold or Approach Surface elevation that would depict the height of obstructions that would penetrate each of these surfaces at various locations. It would also be helpful if approximate numbers of trees to be removed could be estimated.

The nature of the forest cover at this location must be explored. Are the trees approximately the same height, with a fairly uniform canopy, or are there individual trees that are significantly taller? Would topping a few taller trees effectively remove obstructions of the Threshold Surface?

We also note that the Figure for the Runway 33 end depicts the Threshold Surface beginning at the runway end, not the threshold end, unlike the Figure for Runway 15. An extra 200' would raise the surface by 10'. In addition, if there are a significant number of Threshold Surface obstructions, could extending the threshold even further back down the runway (i.e., modifying runway 'declared distances') eliminate or significantly reduce required clearing? What are the potential safety and aviation impacts of such a scheme?

The Figure for Runway 23 does not depict the 20:1 Threshold Surface. The selective removal area within Bluff Point State Park does not include any magenta dots. Are there any obstructions within the Threshold Surface at this location?

Similarly, the Figure for the Runway 5 end depicts the 50:1 Approach Surface, but not the 34:1 Threshold Surface. It should be verified that the obstructions proposed for removal violate the more relaxed 34:1 standard. Because the island is an eroding landform, any tree removals must be accomplished in a manner that will not accelerate erosion.

Page 4-10 notes that additional consultation with DEEP is recommended and that specific surveys for fauna, particularly avifauna, may be warranted. As a member of the Property Management Review Team, the Wildlife Division will continue to provide guidance as cutting plans are refined. Among issues to be considered are:

- Use of Bluff Point area northeast of Runway 23 by migratory birds,
- Presence of winter owl roost near Bushy Point,
- Potential disturbance of shorebird nesting areas by accessing Bushy Point.

With regard to cave bats and breeding birds, page 5-9 states: "Based on other airport obstruction removal projects, direct impacts 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, as long as the winter owl roost is not disturbed. This conclusion will be reviewed by USFWS and CT DEEP to determine if biological surveys and potential mitigation are necessary." In order to assure protection of these species, the Department recommends that this restriction be extended: from April 1 through September 30.

Over the years, the Department and ConnDOT had worked together to complete various projects and conduct operations at the airport in a manner that protected the biological diversity at Groton - New London Airport. DEEP anticipates that CAA, as the successor entity, will honor all legal commitments pursuant to statutory requirements made by their predecessor. We look forward to continuing collaboration with CAA toward that goal.

The document should include reference to the Baker Cove Watershed Plan (2011) and its recommended actions to address nonpoint source pollution loading to the adjacent Birch Plain Creek and receiving Baker Cove. Stormwater management, invasive species control, riparian buffer planting enhancements, and nuisance goose flock control are identified as mitigation measures for sources of excess water-borne pathogens and nutrients that have degraded designated water-based recreation uses and resulted in shellfish bed closures. **Targeted** management strategies are recommended in this water quality improvement plan. Airport management has provided preliminary input to assist with specific actions involving area goose flock management measures. Such stakeholder involvement will be coordinated by Eastern Connecticut Conservation District staff starting in Spring 2017 as part of a nonpoint source pollution management funding agreement with this Department. Proposed airport tree cutting and other obstruction removal measures, particularly along the Runway 15 approach, should carefully consider associated stormwater runoff controls and avoid creating additional favorable upland habitat conditions for geese and other waterfowl. Final obstruction removal plans should be shared with the coordinating Conservation District project staff to ensure that their area coordinated actions are not inadvertently undermined. Additional information can be found online at: Baker Cove Watershed Plan.

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 undertaken 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. The construction stormwater general permit registrations can now be filed electronically through DEEP's e-Filing system known as ezFile. Additional information can be found on-line at: Construction Stormwater GP.

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

cc: Robin Blum, DEEP/NDDB
Nelson DeBarros, DEEP/NDDB
Brian Golembiewski, DEEP/LWRD
Robert Hannon, DEEP/OPPD
David Kozak, DEEP/LWRD
Dawn McKay, DEEP/NDDB
Graham Stevens, DEEP/CALM
Jamie Sydoriak, DEEP/CALM
Eric Thomas, DEEP/WPSD
Tom Tyler, DEEP/SPD

# **Groton Open Space Association, Inc.**

P.O. Box 9187, Groton, CT 06340-9187 www.GOSAonline.org



Colin Goegel, Connecticut Airports Authority, 334 Ella Grasso Turnpike, Suite 160, Windsor Locks, CT 06096 Draft Environmental Assessment Report for Groton New London Airport Tree Obstruction Removal January 24, 2017

Groton Open Space Association (GOSA) recommends that the Connecticut Airports Authority conduct a full Environmental Impact Statement for the proposed Bluff Point project for the following reasons:

- 1) Special Act NO. 76-27 AN ACT CONCERNING THE USE OF LAND AT BLUFF POINT COASTAL RESERVE states that: "no improvement shall be undertaken which does not contribute to the preservation of the natural, scenic, historical or ecological values of the 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 the department of environmental protection." CT DEEP, as the owner of the property, has a mandate to ensure actions are consistent with the act.
- 2) FAA regulations allow for a 20:1 slope on three of the runway approaches. Moving the landing point further away from Bluff Point on runway # 33 would provide for a higher tree clearance and ensure a safe 20:1 approach without having to cut trees on the Bluff Point peninsula. The runway would be essentially shorter for landings, but the full length could still be used for take-offs. This alternative needs further exploration by the CAA.
- 3) The proposed draft plan offers only vague detail about the potential impact from logging practices on flora and fauna and offers nothing about future reforestation efforts. Sensitive ecosystems could be at risk from trucks, heavy logging equipment, clear cutting, erosion, sedimentation and improper debris disposal. There could be impacts to the endangered piping plover if trucks were to traverse the beach habitat to access Bushy Point. A previous logging project on Bluff Point caused harm to wildlife by removing beneficial shrubs and by dumping a three-to-four foot thick layer of wood chips on the forest floor.
- 4) <u>Bluff Point is unique as the last large coastal forest peninsula having stands of mature trees in Connecticut</u>. A **complete environmental impact statement is needed to** identify the exact location of specific rare and endangered plants and animals that could be at risk from the proposed forestry activities. Vulnerable areas also include sand beaches (with endangered piping plover habitat), brackish marshes, freshwater wetlands, coastal wetlands, coastal grasslands, coastal woodlands and special coastal shrub lands resulting from wind and salt spray impacts.

Groton Open Space Association (GOSA) GOSA is a 501©3 land trust and environmental advocacy organization, formed in 1967 to save Haley Farm State Park and Bluff Point State Park and Coastal Reserve. We have an established history in protecting this resource.

Joan H. Amich Joan Smith, GOSA President



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



Dannel P. Malloy Governor Nancy Wyman Lt. Governor

**Drinking Water Section** 

January 24, 2017

Mr. Colin Goegel Supervising Engineer Connecticut Airport Authority 334 Ella Grasso Turnpike, Suite 160 Windsor Locks, CT 06096

Re: Notice of EIE for the Connecticut Airport Authority (CAA)—Off-Airport Tree Obstruction Removal at the Groton-New London Airport

Dear Mr. Goegel:

The Drinking Water Section of the Department of Public Health has reviewed the above-mentioned project for potential impacts to any sources of public drinking water supply. This project does not appear to be in a public water supply source water area; therefore, the Drinking Water Section has no comments at this time.

Sincerely,

Patricia Bisacky Environmental Analyst 3

Patrin Groung

**Drinking Water Section** 





locations to be cleared. Particularly, the potential impact of moving equipment to and from Bushy Point. 3. Impact of clearing on native species and risk of invasive species taking over forest. Plans for restoration 4. What is the rate of tree growth? Is it possible that these trees have reached close to their maximal height and that clearing is not truly needed? 5. The firm referred to the proposal as selective cutting but because many of the trees in the area considered for clearing differ in diameter but are of similar heights isn't the proposal more closely represented by clear cutting? Thank you for your consideration of these comments. Grace Vandal

From: Robert Bruno

**Sent:** Tuesday, January 03, 2017 12:10 PM

To: 'Stevens, Graham'

Cc: Kevin Dillon (kdillon@bradleyairport.com) <kdillon@bradleyairport.com>

**Subject:** Groton Obstruction Removal EA

#### Graham,

I hope you had a great Holiday. I wanted to pass along information on the approaches that the CAA is proposing to remove obstructions within at Groton New London Airport. There was a lot of information presented at the meeting and I wanted to make sure you that you have the correct information. The information provided at the public hearing showed a full clearing option for all surfaces, a no cut option and a proposed modified clearing plan. The CAA is recommending the modified clearing plan which clears the Threshold Siting and Terps Surfaces, not the full Part 77 surfaces. We are proposing to clear the 20:1 surface for runways 15,33 and 23 along with the 34:1 for the runway 5 approach. The 34:1 is required for Runway 5 due to the ILS approach therefore a 20:1 clearing would not protect the ILS approach. Runway 5,23 and 33 approaches all have obstructions on Bluff Point with the largest area in the Runway 33 approach. In an effort to reduce the overall selective clearing the CAA along with FAA agreed to the clearing of Threshold Siting and Terps surfaces only and not the full Part 77 Surfaces. We will be setting up a meeting in the very near future to discuss.

Please let me know if you need any additional information,

Thanks, Bob

Robert Bruno
Director of Planning, Engineering and Environmental Services
Connecticut Airport Authority
860-254-5516
rbruno@ctairports.org



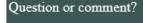
Sent: Wednesday, November 09, 2016 7:11 PM

To: Easton, Glenn; cgoegel@ctairports.org; Loewenstein, Jean

Cc:

Subject: Groton Airport Comment

First Name: shawn
Last Name: waldron



I have concerns regarding the tree clearing at bush and bluff point also the majority of pilots flying into the airport follow correct flight paths and noise guidelines the exceptions being private aircraft on weekends in particular mostly small aircraft and a" cowboy want to be bush pilot " who regularly flies a large float aircraft so low I am surprised he has not hit a mast on one of the many sailboats in pine island bay he does manage to land on fixed gear not the floats. Having been a resident here for 58 years I have seen many forms of aircraft use the airport including many visits by air force one would the president s staff ever consider this airports approaches or runways unsafe. I understand you want improvements but they should be measured also from the public who live around the airport and people who use the wonderful state park and estuaries thank you shawn

From: Marge Nichols

Sent: Friday, November 18, 2016 5:43 AM

To: Colin Goegel < cgoegel@ctairports.org>

Cc:

**Subject:** I'm against Cutting Trees at Bluff Point St Park

I cannot attend the hearing on Dec. 8, but please let my comments be included.

- 1. I can't understand why the nearby Airport needs to have trees cut. I would hope planes would be high enough even on their approach to the airport runway to miss the trees??!! They've been doing it for decades, successfully.
- 2. I have gone to Bluff Point for over 20 years and it is a beautiful place. Cutting nearly 10 percent of the trees in the park is a huge environmental and esthetic loss. Disruption of habitat for wildlife and erosion and silting of fragile march ecosystems is terrible and should never happen in a place that is meant to protect and preserve those places.
- 3. When Steven Spielberg's movie "Amistad" was filmed back in 1997, they filmed part of it off Bluff Point State Park the only unspoiled, undeveloped part of CT's coast left. Let's not spoil this last gem of CT's coast.
- 4. This State Park belongs to me and all CT taxpayers. Don't ruin land that belongs to us.

Sincerely, Marge Nichols Lebanon, CT From: Jean Layton

Sent: Sunday, November 20, 2016 12:04 AM

To: Colin Goegel < cgoegel@ctairports.org>

**Subject:** WHY?? WHY?? WHY?.

Just read your intentions to cut trees, what on earth?? What science dictates this destruction??? WHY do you even think this wise?? What will you leave your children? no trees, not birds, no fish, no animals, nothing, nothing, our children read this and are still crying.

From: Ken Mayer

Sent: Wednesday, November 30, 2016 8:00 PM To: Colin Goegel <a href="mailto:cgoegel@ctairports.org">cgoegel@ctairports.org</a>

Subject: Bluff Point Tree Cutting

#### Dear Mr. Goegel:

Bluff Point is often considered the best state park in the state of Connecticut. People visit from far away to enjoy the natural beauty. I urge you to consider the importance of this park when determining what to cut. Please do not ruin this valuable Connecticut gem.

Thank you, Janet Mayer

From: Sean McQuilken

**Sent:** Monday, December 5, 2016 8:00:27 PM

To: Colin Goegel

Subject: Public Comments Re: Environmental Assessment (EA) for Obstruction Removal and

Lighting

Colin,

I am writing to you today to demonstrate my opposition to your plan to selectively remove trees at the Groton/ New London airport. As a biologist myself with years of experience working to mitigate damages to the environment caused by construction activities and reading environmental impact statements I am very much qualified to comment on your plan. Your plan fails to adequately asses the environmental impacts both temporarily and long term that removing trees from a protected habitat will cause. The animals, vegetation and habitat at Bluff Point State Park and surrounding areas are currently under stress from climate change, over use of the park and other reasons, none of which are mentioned in your EA. Your tree cutting if implemented will cause additional unneeded stress on the animals and habitat of Bluff Point State Park. I am also strongly opposed to taking private land and harming areas of critical habitat including a state park which is used by hundreds of thousands of people a year for the needs of a few. The few being the very little air traffic that this airport currently sees. With no scheduled air service and only a few charter and private flights a day this project will not serve the greater good. Therefore I want to reiterate that I am OPPOSED to any removal or pruning of trees in any areas surrounding the Groton/ New London airport.

Thank you for the opportunity to comment on this proposal. Sean McQuilken

From: Jean Layton

Sent: Tuesday, December 06, 2016 10:39 AMTo: Colin Goegel < cgoegel@ctairports.org>

**Subject:** FW: why why cut trees?"

We cannot believe humans where is your research that tree cutting environment needed?? What are you thinking?? What are you saying to your children?? Do you think children need to see birds, animals, insects, MOTHER NATURE IS YELLING AT YOUR THINKING SO, she will retaliate in a dramatic way, no trees no breeze no wind and higher tides higher water invasions in to land We Beg you NO CUTTING TREES think

## Louise Fabrykiewicz

For starters: I am here tonight to express my deep concern about the proposed plan to destroy 40 acres of trees at the Bluff Point Coastal Reserve, as well as 15 acres of trees on neighboring properties.

Like The Lorax of Dr. Seuss fame 'I speak for the trees, for the trees have no tongues", and for some of us there is much more that is troubling about some consequences of tree removal in regard to the potential erosion and sedimentation of the surrounding coastal habitats and loss of protection for the high number of endangered and threatened species that are found within the park.

Thanks to the State of Connecticut for having the foresight in 1975 to acquire the last significant portion of undeveloped shoreline in Connecticut and I quote, "for the purpose of preserving its native ecological associations, unique faunal and floral characteristics, geological features and scenic qualities in a condition of undisturbed integrity".

Just remember: Folks keep in mind, that once it is gone, it is gone.

# Environmental Assessment & Environmental Impact Evaluation for Obstruction Removal Groton-New London Airport (GON)

Public Hearing (December 8, 2016)

Name: (optional) Kimberly Bradley	
- 1011/-	
Date: 12/8/16	
Comment(s):	W
- Removal of high canopy can increase the patenti	a (
Ser invasive spectes grown. How will this be managed following true removal?	2
managed following thee removal?	
- Will tree removal areas be monitored following	
removal? Monitoring should occur similar to well and restoration mitigation areas Sor 4-5 years.	
welland resoration willbatton areas DV 4-5 years.	
	ر)
Tobe water would future Active managener	10
be preferred to this occurring again?	
- wetland betweather on Bushy Point is required.	

• Comments can be submitted on this form or through <a href="http://grotonairport.caa-analysis.com">http://grotonairport.caa-analysis.com</a>

## Environmental Assessment & Environmental Impact Evaluation for Obstruction Removal Groton-New London Airport (GON)

Public Hearing (December 8, 2016)

Name:	(optional) Kinberly Bradley
	12/6/ 224
Date:	12/8/2016
Comment(s):	
	Have site wetland delineations been completed
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	and USFWS bundaries have been candeded.
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<u>di</u>	stance or tree removal areas from wellands
	nould be identified.
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Pres	as must be completed within these high projectly ected habitals. A follow up report on indings and management strategres must be
brog	ected habitals. A follow up report on
· }	indings and management strategres must be
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VIC	able option.
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Comments	can be submitted on this form or through http://grotonairport.caa-

analysis.com

## Environmental Assessment & Environmental Impact Evaluation for Obstruction Removal

Groton-New London Airport (GON)

Public Hearing (December 8, 2016)

Name:

analysis.com

	Date: 12/8/16	
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• Comments can be submitted on this form or through <a href="http://grotonairport.caa-">http://grotonairport.caa-</a>

# Environmental Assessment & Environmental Impact Evaluation for Obstruction Removal Groton-New London Airport (GON)

Public Hearing (December 8, 2016)

Name:

Date: 12/8/16
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of the trees that are cut down. I
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twice a week.

• Comments can be submitted on this form or through <a href="http://grotonairport.caa-analysis.com">http://grotonairport.caa-analysis.com</a>

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Goriff: 7n)	Environmental Assessment & Environmental Impact Evaluation for Obstruction Removal Groton-New London Airport (GON) Public Hearing (December 8, 2016)	
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	Connecticut Airport Authority 334 Ella Grasso Turnpike Windsor Locks, CT 06096 Attn: Colin F. Goegel, P.E.	

## Environmental Assessment & Environmental Impact Evaluation for Obstruction Removal Groton-New London Airport (GON)

Public Hearing (December 8, 2016)

Name:	(optional)
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Email:	
Telephone:	
Date:	
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	) IS FINE PILOTING THE PROBLEM

<sup>•</sup> Comments can be submitted on this form or through <a href="http://grotonairport.caa-analysis.com">http://grotonairport.caa-analysis.com</a>

#### E. Zell Steever

December 8, 2016

To: Mr. Colin Goegel, Supervising Engineer

Connecticut Airport Authority

334 Ella Grasso Turnpike, Suite 160

Windsor Locks, CT 06096

Re: Environment Assessment/ EIE for Off-Airport Tree Obstruction Removal at the

Groton-New London Airport (GON); Public Hearing December 8. 2016.

Dear Sir:

I am Zell Steever I want to thank you for coming to Groton to hold this formal public hearing tonight on the obstruction removal at the Groton-New London Airport and to hear our views.

First, as you may know the Bluff Point Coastal Reserve located to the east and south of the airport was established by the Connecticut Legislature in Special Act No. 76-27. In addition, the Connecticut Department of Environmental Protection has promulgated regulations Sections 23-4-4 and 23-4-5 regarding operations and uses of this Reserve. In part, the Special Act states: "(a) Said coastal reserve shall be maintained and administered by the department of environmental protection and no improvement shall be undertaken which does not contribute to the preservation of the natural, scenic, historical or ecological values of the 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 the department of environmental protection. . . . . " so right from the very outset the State of Connecticut set Bluff Point aside as a reserve not to be disturbed.

Bluff Point is the last remaining large contiguous coastal ecosystem in Connecticut where the eastern deciduous forest, coastal shrublands, eroding bluffs, barrier beaches, salt marsh wetlands, and intertidal estuarine complex meet the marine environment of Long Island Sound. There simply are no other places like Bluff Point Reserve in Connecticut. This Reserve is a unique and very special ecosystem. It has great value for its scientific, educational, scenic and recreational purposes. While historically Bluff Point has experienced a number of man-made disturbances: farming, hunting, forestry and summer houses along the barrier beach, it has also experienced natural fires, gypsy moth infestations, storm-driven salt spray, and hurricanes and yet it has returned over time (75 years, since the 1938 hurricane) to its natural ecological condition. Cutting down large mature trees and leaving wood chips has in the past and will in the future adversely impact the evolving natural development of the Bluff Point ecosystem and is not consistent with the purpose of the Bluff Point Reserve.

I have spent time at Bluff Point over the last 45 years, first as a hiker/visitor, as a graduate student in botany at Connecticut College, then as college biology instructor, as a recreational user, and of course as a past user of the airport services. The Bluff Point

Reserve is one of the most important ecological systems remaining along Connecticut's coast today. It is my strong belief that GON should not be permitted to remove any vegetation including trees in the Bluff Point Reserve (BPR) for the following reasons: the BPR should be left undisturbed as it serves as the single remaining coastal forest ecosystem in Connecticut; it is a field laboratory for students and researchers in how a mature coastal ecosystem operates and naturally changes over time; it serves as a reference ecosystem as climate change takes place in Connecticut (especially sea-level rise and rising temperature patterns); it functions to mitigate the impact of climate change – trees remove CO2; it has scenic value as viewed from the west and east sides and particularly from Fishers Island Sound; and finally it is a much loved, passive recreation area in this region of Connecticut. In my view, BPR should never be allowed to have mature trees or other vegetation removed from 40 acres of this Reserve.

Second: Frankly, this EA/EIE treats the environmental resources around GON as lists of species in various categories and not as an interconnected ecosystem in the context of this region or the State of Connecticut, so it is impossible for the decision makers based on this EA/EIE to make an informed decision on meeting FAA safety standards while protecting the quality of the human and natural environment in this case. If this is the situation, then it is appropriate for the lead agency to undertake a full Environmental Impact Statement analysis before a final decision is made on the propose project.

Third: While I support keeping GON as a safely managed airport pursuant to FAA rules, I question whether the GON has given sufficient consideration to other alternatives. The proposed cutting on Bluff Point is for the purpose of maintaining the smaller cross-runway,15/33 (4,000 feet long). General aviation numbers have continued to decline from 80,319 in 1999 to 42,945 in 2015 and currently to 38,871 operations in 2016. While it seems that records are not kept by GON on which runways are used, it appears that it may be impossible to determine if the short 15/33 runway is really needed as stated in the EA/EIE. It also seems that if further displacement of the thresholds on runway 15/33 were considered to be *feasible*, as an alternative, then GON would be able to continue operations in compliance with FAA's design standards and regulations regarding clear airspace.

I strongly recommend that the GON give further consideration to the alternative "Further Displacement of Thresholds", listed on page 3-7 of the EA. This option is listed as considered and dismissed because it would "diminish the existing capability at the airport." But would it really? And by how much? Since runway 15/33 may rarely be used at the airport, this option to increase the threshold at 15/33 would appear to be a very feasible option. I urge the GON to reconsider this option and share with the public the details of the pros and cons of expanding or reducing the threshold surface.

It looks as though the Connecticut Airport Authority is attempting to expand the present operations by pushing back the existing landing thresholds to 4,000 feet even when records are unavailable to support this action and as overall airport operations are continuing to decline.

Thank you for the opportunity to come before you tonight to present my statement.

Sincerely,

E. Zell Steever 7

#### E. ZELL STEEVER

#### Bio

Zell Steever has worked for over 40 years in environmental and water resources at the local, state, national and international levels. Steever has worked for the President's Council on Environmental Quality, the U. S. Environmental Protection Agency, U.S. Department of the Interior, Bureau of Reclamation, and the U. S. Army Corps of Engineers. He was the Director of Water and Related Resources for the Connecticut Department of Environmental Protection in the early 1970s.

Steever was a Member of the U.S. Delegation to the Earth Summit held in Rio de Janeiro in 1992, and was responsible for negotiating, on behalf of the United States, five chapters of Agenda 21 including the Freshwater, Science, and Capacity Building Chapters.

Steever was President of the DC Chapter of the Association for Conflict Resolution in 2003-04. He was on the Board of the Thousand Island Land Trust in Clayton, NY for 8 years.

Steever was the Chairman of the Groton Conservation Commission from 1969-71, and a member of the Noank Park Commission during the late 1960s. He was a member of the advisor board for the Groton Utility Drinking Water Quality Management Plan in 2007-08.

More recently, Steever was the Chairman of the Groton Town Council's Climate Change and Sustainable Community Task Force from 2008-12. He wrote the final report of the Task Force with recommendations on how Groton could improve energy efficiency and prepare for climate change. He was a member of the Groton Energy Efficiency and Conservation Committee from 2013-16.

A native of Connecticut, he is a graduate of the University of Connecticut in agricultural engineering and received a masters degree in botany from Connecticut College with his research in wetland plant ecology.

From: Aimie G

Sent:Thursday, December 29, 2016 6:14 PMTo:Colin Goegel < cgoegel@ctairports.org >Subject:Please don't cut the old growth down

Colin Goegel Connecticut Airports Authority 334 Ella Grasso Turnpike, Suite 160 Windsor Locks, CT 06096

Dear Colin,

I am a concerned Groton resident, asking that you not cut the old growth down.

Is there any way that technology can be used to spare the old growth near the airport? Perhaps sensors or scanners.

Thank you, Aimie Gresham

**Sent:** Monday, January 02, 2017 12:21

**To:** Easton, Glenn <<u>GEaston@chacompanies.com</u>>; <u>cgoegel@ctairports.org</u>; <u>Loewenstein</u>,

Jean <<u>RLoewenstein2@chacompanies.com</u>>; <u>mparsons@ctairports.org</u>; <u>Martelle Sr</u>,

Jeremy <JMartelle@chacompanies.com>

Cc:

**Subject:** Groton Airport Comment

First Name: Grace
Last Name: Vandal

#### Question or comment?

To whom it may concern: I attended the Public Hearing on Dec 8, 2016 at Groton City Hall. In my opinion the engineering firm hired to do the environmental impact assessment for the project did an insufficient job detailing the necessity for the tree clearing. They also did not adequately identify all the potential impact of the proposed tree clearing. The following issues were not covered or addressed in the presentation 1. The potential impact of the tree clearing on migratory bird populations was not addressed. 2. Impact of transporting equipment to and from the



locations to be cleared. Particularly, the potential impact of moving equipment to and from Bushy Point. 3. Impact of clearing on native species and risk of invasive species taking over forest. Plans for restoration 4. What is the rate of tree growth? Is it possible that these trees have reached close to their maximal height and that clearing is not truly needed? 5. The firm referred to the proposal as selective cutting but because many of the trees in the area considered for clearing differ in diameter but are of similar heights isn't the proposal more closely represented by clear cutting? Thank you for your consideration of these comments. Grace Vandal

From: Robert Bruno

**Sent:** Tuesday, January 03, 2017 12:10 PM

To: 'Stevens, Graham'

Cc: Kevin Dillon (kdillon@bradleyairport.com) <kdillon@bradleyairport.com>

**Subject:** Groton Obstruction Removal EA

#### Graham,

I hope you had a great Holiday. I wanted to pass along information on the approaches that the CAA is proposing to remove obstructions within at Groton New London Airport. There was a lot of information presented at the meeting and I wanted to make sure you that you have the correct information. The information provided at the public hearing showed a full clearing option for all surfaces, a no cut option and a proposed modified clearing plan. The CAA is recommending the modified clearing plan which clears the Threshold Siting and Terps Surfaces, not the full Part 77 surfaces. We are proposing to clear the 20:1 surface for runways 15,33 and 23 along with the 34:1 for the runway 5 approach. The 34:1 is required for Runway 5 due to the ILS approach therefore a 20:1 clearing would not protect the ILS approach. Runway 5,23 and 33 approaches all have obstructions on Bluff Point with the largest area in the Runway 33 approach. In an effort to reduce the overall selective clearing the CAA along with FAA agreed to the clearing of Threshold Siting and Terps surfaces only and not the full Part 77 Surfaces. We will be setting up a meeting in the very near future to discuss.

Please let me know if you need any additional information,

Thanks, Bob

Robert Bruno
Director of Planning, Engineering and Environmental Services
Connecticut Airport Authority
860-254-5516
rbruno@ctairports.org



From: Jim Woodworth

Sent: Monday, January 09, 2017 4:00 PM

**To:** Loewenstein, Jean <<u>RLoewenstein2@chacompanies.com</u>>;

Subject: Public comment re: Environmental Assessment (EA) for Obstruction Removal and Lighting

Ms. Jean Loewenstein CHA Tech Services Brainard Airport EA for Obstruction Removal

Dear Ms. Loewenstein,

I would like to submit the following comments for the Public Information Meeting on Jan. 13, 2017, in my capacity as Stewardship Chair of the Great Meadows Conservation Trust, Inc., a non-profit land trust founded in 1968 to preserve and protect the Great Meadows of Wethersfield, Rocky Hill, Glastonbury and it's environs. The Trust owns and manages our E.B. Wolf Parcel, a property on the West side of Folly Brook. It forms the western end of the Folly Brook Nature Preserve that extends along the east side of Folly Brook, the north side of the Cove, West of I91, and the north side of the entrance to the Cove, also known as Folly Brook. The Trust also owns "area 5" on the East side of the river in the transitional area including purple dotted "TERPS obstructions."

Trust members appreciate the opportunity to comment on the proposed "obstruction removal." I would like to express my concurrence with the proposed Modified Obstruction Removal Alternative. However, I would like to suggest ways to mitigate the environmental effects of removing the largest trees.

1. In addition to removing the very mature swamp maple and cottonwood trees that dominate this flood plain forest, I suggest that they be replaced by species that are slower growing and/or less tall in maturity, as suggested by Christian Marks, Nature Conservancy forester, and Dave Gumbart, TNC land manager. I would also like to see the introduction of native wetland adapted shrubs that would thrive in the area as the canopy is opened up by the removal of the mature trees. The selection of flowering and fruit bearing shrubs should be governed by an attempt to provide nectar and fruit to bees, butterflies and birds from early spring to fall.

Introducing these native species would have the added advantage of slowing regrowth of species like maple and cottonwood, resulting in the need for less costly and intrusive management in the future.

2. Also as suggest by Christian Marks and Dave Gumbart, I would like to see the restoration or establishment of flood plain forest in nearby areas, as mitigation for the removal of the flood plain forest in the airport approach areas. In my opinion, the opportunities for restoration of the flood plain forest abound directly across the river in Hockenum Meadow, primarily owned by Goodwin College and including Great Meadows Conservation Trust properties. Some of this area, formerly farmed, is in early succession growth with areas overgrown with multi-flora rose and other areas with knotweed.

At a mutually convenient time I look forward to a meeting with representatives of CHA Tech Services, members of GMCT, and representatives of TNC out in the Affected Areas #1 and #2 to discuss the plans for obstruction removal and mitigation.

In the mean time, I would invite all interested members of the public to join me and Larry Lunden, GMCT Land Management Chair, on our "Brisk Winter Walk" scheduled for 1:00 pm, Sunday, January 22, 2017. We will explore the Folly Brook Nature Preserve, including the area designated Affected Area #2. A second "Brisk Winter Walk," cosponsored with Bruce Morton, Goodwin College Environmental Program Director, is scheduled for 1:00 pm, Sunday, Feb. 13, 2017. This walk will explore the Hockenum Meadow including area #4,5,6, and potential mitigation areas.

Thank you again for offering this Public Information Meeting and providing the opportunity for citizen comments on the environmental impacts of the proposed obstruction removal.

Sincerely,
Jim Woodworth
Stewardship Chair
Great Meadows Conservation Trust

## Environmental Assessment & Environmental Impact Evaluation for Obstruction Removal Groton-New London Airport (GON)

Public Hearing (December 8, 2016)

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analysis.com

(optional) Andrew Lopez

Date: 10 January 2017
Comment(s): First and foremost, I would like to make glear
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Loydon Airport plan is intended to respenden with the
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the toks not the hopic Albania on 8 DECEMBER JOTE.
It seems clear to me that the Environmental Assersment
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in Connecticut, fall note people than the airport could prove ever
extract. On first rate, I say built the dua on the airport and
I turn it in to an extension of the state park.
<ul> <li>Comments can be submitted on this form or through <a href="http://grotonairport.caa-">http://grotonairport.caa-</a></li> </ul>

**Sent:** Tuesday, January 17, 2017 2:56 PM **To:** Colin Goegel < cgoegel@ctairports.org>

**Subject:** Bluff Point

Please, please, please do not destroy Bluff Point. It is a treasure to the community, habitat to so many wonderful creatures and a refuge for both animals and people alike.

Thank you, Hilary Jantzi

From: robert andrews

**Sent:** Tuesday, January 17, 2017 8:41:32 PM

To: Colin Goegel

Subject: BLUFF POINT

#### Colin

I live in Colorado but have kept a boat in Groton for many years. In the past 15 years I have probably visited Bluff Point at least 100 times for walking, hiking, kayaking, picnicking, contemplation, berry picking (rose hips) and fishing. I have been all over the world and Bluff Point remains one of my favorite places.

From my work in urban planning, I know how easy it is too mess up a really good place with good intensions. Please be VERY careful before making changes to such a wonderful place. I frankly see little wrong with just the way it is and I tend to be a fairly critical person overall when it comes to public spaces.

Regards,

Robert Andrews Boulder, Colorado

16 January, 2017 Mr. Colin Joegel, Supervising Engineer Agency, Connecticut Airport Authority 334 Ella Grasso Jurnpike Smite 160 Wirdson Jocks, CT06090 Dear Mr. Joegel, response to your Mis Is ETE for off-aisport notice of ETE for off-aisport The Obstantion Premoval, a place The Bliff Point is not only a place of environmental importance, great Déauty, commercial value land fistorical significance but also apeace that the strings visitors from all over the U.S. and. Deven foreign countries. Ho a hoost to low economy and an educational high Point For both children Pard adults. Many

Pehool dasses/visit studying many different subjects in this exciting and varying area. Birds, Dome fameliar and some endangerled depend on food from Bushes and Trees Clear water and air and unobstructed flight. I urge the Connecticut airport authority to put aside the cutting of thees in this magnificant Pluff Point Coastal Reserve it is too important to po many people, wildlife and the spour ownest and is actually of importance to the Airport, which is low-lying and protected by Bluff Tout On TINI No, to TREE CO.TING, PLEASE Milihewbury Ebben

From: Rebecca Nash

**Sent:** Tuesday, January 17, 2017 12:50:59 PM

To: Colin Goegel

**Subject:** Comments related to proposed clearing of trees at Bluff Point

I am writing to express my deep concerns with the proposed clearing of "select" trees at Bluff Point as part of the obstruction removal project for Groton-New London Airport. My concerns are numerous and my preferred action plan is the "no action alternative." In reading your report, I note that this action plan is theoretically not an option since the FAA requires that airports prevent the growth or establishment of obstructions. I note, however, that Bluff Point is a state park with a conflicting mandate that is to protect and preserve the land and its trees (or, so-called "obstructions"). Perhaps the solution is in recognizing that the trees at Bluff Point are mature trees and are therefore no longer getting taller and threatening to obscure runway views.

Should the airport decide to ignore the outcry of sentiment objecting to the tree removal, there are several other factors that should be considered.

Bluff Point is a state park that is free and open to everyone. In more recent years – and especially after the 2008 recession – the park has seen increased usage. It is a natural area that is used by many different people across all walks of life and for many different recreational and conservation purposes. The Groton-New London Airport, on the other hand, serves the needs of relatively few. It serves a population that enjoys wealth and privilege... private planes, corporate jets, etc. By destroying the beauty of a public state park to serve the needs of a relative few, you are putting the needs of the wealthy over those of the general public. It is a social injustice and should not move forward.

Another issue that is not addressed relates to Bluff Point containing a mature forest. The proposal and public presentation discuss selective thinning of trees at the state park. However, since the trees are primarily all the same height, this effectively becomes a clearcut of a protected state park. Several years back, a small section was cleared for a similar runway visibility project. That section continues to be a brambly mess. Trees were cleared with no plan for remediation. Invasive plant species grew back, primarily pricker bushes. Existing trails were destroyed and have never been replaced. This current project will result in the same issues but on a much larger scale. There needs to be a plan for replanting of native species and for re-instating all the trails that will be destroyed. It is important to note that many of these trails are not on official maps of the state park but are used by many hikers, bikers and horseback riders in the park.

The plan also does not address how certain areas within the state park will be accessed. Specifically, Bushy Point Beach is at the far side of a barrier beach that provides crucial habitat and storm surge protection. Driving tree-clearing equipment along this beach should not be an option. I would further argue that this habitat is so crucial that any tree clearing in this area should not be an option either.

Bluff Point is a unique area that provides important habitat and recreational opportunities. It should be protected and all efforts made to ensure that impacts to the ecosystem are minimized and that recreational opportunities are not adversely impacted.

Thank you for adding my comments to the public record related to this project.

Rebecca Nash

## 18 Jan 2017

Mr Colin Goegel Coun Airport Authority Dear Mr Goegel I attended the meeting on 8 Dec 2016 at the Groton City Hall and I am mostly concerned about the proposed tree removal on Bluff Point, Byshy Point and Jupiter Foint. Some of these trees are quite old, perhaps predating the air Age. But why remove these trees?

I lived in the area during WWII and don't remember any planes hiting trees, but 2 did land in Bakers Cove.

Another later crash involved a small bomber size plane, again in the water. Another later crash involved a small bomber size plane, again in the water. While the removal of trees at the north end of Bluff Foint in an area that has been worked by vailvood use over the years is a minor loss the 30 acre area in the southern part of Bluff Foint is an area that has been forested for many years. The proposed Thinning will involve the use of heavy equipment and opening roadways to bring equipment in and trees out plus the excavations for the new government appoved trees. On Bushy Point the removal of trees should be by chain saws & laders only with just the part by chain saws \$ laders only with just the part of the tree that offends the FAA is removed Likewise on Jupiter Point if the tree homes that are near by at risk? Horace m new wy

**From:** bernard french

Sent: Thursday, January 19, 2017 9:45 PM
To: Colin Goegel < cgoegel@ctairports.org>

**Subject:** Bluff Point

Sir,

I write this as a Groton resident for 42 years. Please do not remove vast quantities of trees in our beloved state park. This a park for the people. If you need to top some trees, ok. No clear cutting please, or Hartford will face protests.

We are listening.

Bernard D French DDS

From: Hope Brayton

**Sent:** Thursday, January 19, 2017 3:39 PM **To:** Colin Goegel < cgoegel@ctairports.org>

**Subject:** Bluff Point

Dear Sir:

While I can understand that your immediate priorities may be those of Connecticut's airports, I write to suggest that you consider other solutions to the problems that the Groton Airport may be having rather than cutting down trees at Bluff Point.

Bluff Point is an exceptional site in all of New England, let alone coastal Southern New England. There are very few mature forests along the coast. There are many, many airports.

As when one flies a small plane & looks at the landscape from above, perhaps a greater perspective in light of the rarity of the coastal woodlands is warranted?

If cutting down trees were NOT an option, how else might you address the problems at the Groton Airport?

As a registered voter, homeowner and resident of Groton, Connecticut as well as a regular walker at Bluff Point and frequent traveler, I do not support the idea of cutting down trees for the benefit of the airport.

There are other ways to address the problems of the airport. For example, greatly reducing its use might be an option. Please consider other solutions to the airports problems.

Bluff Point serves many, many more people and purposes than the airport does.

Thank you. Hope Brayton

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From: John Schmidt

Sent: Thursday, January 19, 2017 2:52 PM

**To:** <u>robert.klee@ct.gov</u>; Colin Goegel < <u>cgoegel@ctairports.org</u>>; <u>tom.tyler@ct.go</u>

Cc:

**Subject:** Bluff Point

Gentlemen,

We would like to express our strong objection to a plan to remove tress from up to 40 acres of Bluff Point State Park.

We are frequent visitors to Bluff Point. To us it the single biggest natural attraction to living in this part of the Connecticut. It would be tragic to lay waste to this wholly unique habitat for the sake of compliance with FAA standards. This has all the earmarks of a "path-of-least-resistance" solution to a problem where there are other reasonable alternatives.

We urge you to reconsider your decision.

Thank you in advance for your consideration.

John & Christine Schmidt

**From:** Victor G Villagra

Sent: Thursday, January 19, 2017 3:11 PM

To: robert.klee@ct.gov; Colin Goegel <cgoegel@ctairports.org>; tom.tyler@ct.gov;

**Subject:** Protect Bluff Point Trees

Dear Commissioner Klee, Mr. Goegel, Mr. Tyler and Mr. Stevens

I have read carefully the rationale for cutting down 40 acres of Bluff Point Trees based on a weak consideration of airport safety but the argument presented are not persuasive. The Bluff Point trees are an invaluable and irreplaceable asset of our community and our surrounding environment. Please DO NOT authorize cutting ANY of the existing trees on Bluff Point! Please know that I vigorously oppose that action.

Thank you for preserving our natural resources.

Respectfully yours

Victor G. Villagra, MD, FACP

From: Penny Newbury

Sent: Thursday, January 19, 2017 3:46 PM

**To:** Colin Goegel <a href="mailto:cgoegel@ctairports.org">cgoegel@ctairports.org</a>; <a href="mailto:robert.klee@ct.gov">robert.klee@ct.gov</a>; <a href="mailto:tom.tyler@ct.gov">tom.tyler@ct.gov</a>

**Subject:** The fear of people re: Bluff point tree-cutting is the reality that it will be clear-cutting

#### Dear Mr. Goegel, Commissioner Klee, and Mr. Tyler:

I grew up in Groton and many of my relatives have lived on Jupiter Point for generations. My mother and cousins, along with the first members of GOSA including activist Sandy Meech, fought to help preserve Bluff Point State Park, which is one of the most beloved and well-used parks in Connecticut. There are many things regular citizens don't know about aviation safety in general but one thing we do know a lot about is the Groton New London airport, its history, its infrastructure, and its safety requirements. I am sure you have heard from hundreds of people who have protested the proposed cutting for a number of reasons:

- A belief that this is the beginning of an endeavor to enlarge the airport, something that has been attempted in the past
- The existing law, which states that "living and nonliving re-sources contained within the reserve shall not be disturbed or removed for other than scientific or management purposes...."
- The 1975 legislation that protects the area as a "coastal preserve"
- The head-scratching question of how many people, other that wealthy pilots from Fishers Island, use that southeastern landing trajectory and you've probably heard from one of my elderly cousins who had someone come to her house tell her that they'd have to cut down the pine tree in her yard.

Really??? I believe in resource management and forest stewardship. If we could be assured (and I mean feetto-the-fire, daily-monitoring-with-threats-of-cease-and-desist adhered to assurance) that the selective removal of trees over a certain height would be conducted in the manner of professional forestry, with minimal impact (ie no skidders, no logging roads created), and prior identification of all plant and animal species and a detailed plan for their protection during the selective harvest, then MAYBE you would have less opposition. But no one believes that this is going to be a delicate undertaking on your part. I have little faith, after reading your proposals and looking at your trajectory maps, that your agencies would spend the time and funds necessary to remove the tall and obstructing trees while leaving the surrounding area untouched. If you could do that, I say have at it. You may argue that, well, trees grow and you'll have to cut more in the future. Nope. Specious argument. Your plan does not specify how many trees you want to cut. It's 40 acres--that doesn't seem to be such a hard task. The trouble is, you want to clear-cut, and that is unacceptable, immoral and against the law. Have your foresters walk through the 40 acres and mark the trees, then let the public go see which ones should come down. The "environmental impact statement" should at the very least list this. This issue is, as always, about money. Well, do the right thing for this once and cut that crap out. You are mucking about in a state treasure, and a protected one at that. We have fought for 40 years to preserve Bluff Point. Have the decency to present a clear, itemized plan listing all the trees scheduled for removal and a noninvasive plan for that removal, and I'll be in the front row cheering you on. Thanks for your time.

**Penny Newbury** 

**From:** Doug Thompson

Sent: Friday, January 20, 2017 9:16 AM

To: Colin Goegel < cgoegel@ctairports.org>

**Subject:** Public Comment: Bluff Point State Park Vegetation Removal

I am writing because of a concern with the proposed clearing of trees at Bluff Point for Groton-New London Airport. It is not clear to me why trees need to be cleared from a State Park that is for public enjoyment and was set aside to protect the environment. As indicated on the DEEP website (http://www.ct.gov/deep/cwp/view.asp?a=2716&q=325178&deepNav GID=1650),

Bluff Point was designated a "Coastal Reserve" by a special act of the Connecticut legislature in 1975 to establish the area "for the purpose of preserving its native ecological associations, unique faunal and floral characteristics, geological features and scenic qualities in a condition of undisturbed integrity".

It is clearly against the basic principle of the stated purpose of the designation to clear vegetation, aka flora, and disturb the "native ecological associations." It is also not clear to me that the current vegetation will grow much taller given that they are mature trees. Therefore, it is unlikely that conditions will change much from their current condition if no action is taken. I am also very concerned that the clearing activities themselves could cause a great deal of damage to the Bluff Point area and Bushy Point and Pine Islands. Given the poor job done in clearing areas of Bluff Point several years ago, this is a serious issue.

I am particularly concerned about the proposed clearing of trees off of Pine Island and Bushy Point Island. I have done research on the Bushy Point-Bluff Point Beach system since 2003 and have published this research in peer-reviewed journals. I will point out that the Bluff Point area was heavily damaged during the Hurricane of 1938. According to a September 22, 2013 article in The Day newspaper, more than 100 summer cottages were "wiped out" at Bluff Point the hurricane (http://www.theday.com/article/20130922/NWS01/309229917). The storm surge for the event was between 14 and 18 feet in this region. Today, the current forest on Pine Island and Bushy Point Island help to provide some level of protection from storm surge for the area, especially for Jupiter Point, potentially the Poquonnock Bridge area and even the airport itself. Removal of these trees will increase hazards to local residents, which is especially dangerous because of increased risk of storm surge in the area with sea-level rise and potential increases in the strength and/or frequency of hurricanes with global climate change. I assume that the State would have some liability if clearing these trees enhanced storm surge and created problems in the local area.

Although owned by the state, the airport is really not a public facility. The airport has not had scheduled service since 2004. The current users are mostly private flights, and it is safe to assume most plane owners and passengers on charter flights make above than the U.S. median income. This raises a major question, why is the state potentially damaging a public resource utilized by thousands of visitors of multiple economic and racial backgrounds in order to benefit a smaller number of relatively wealthy individuals? This is especially relevant given the additional storm surge risk that will be faced by people at Jupiter Point and perhaps even the lower income homes in the Poquonnock Bridge area. It is a social injustice and the state needs to protect the rights of the majority of its citizens, not just the wealthy ones.

According to the DEEP, "Bluff Point is the last remaining significant piece of undeveloped land along the Connecticut coastline." It should be protected and all efforts made to ensure that impacts to the ecosystem are minimized, local residents are not exposed to greater hurricane hazards and recreational opportunities are not adversely impacted.

Thank you for adding my comments to the public record related to this project.

--

Douglas M. Thompson Rosemary Park Professor of Geology and Chair Department of Physics, Astronomy and Geophysics

From: Allison Tuttle

**Sent:** Friday, January 20, 2017 9:46 AM

To: robert.klee@ct.gov; tom.tyler@ct.gov; Colin Goegel <cgoegel@ctairports.org>

**Subject:** Bluff Point State Park

#### Hello,

It was mentioned in a brief recently that the CAA and FAA intend to remove trees in the Bluff Point State Park, which is a mature forest protected as a coastal preserve by the CT State Legislature since 1975. This plan could damage as many as 40 acres of forest. The law states that "living and nonliving resources contained within the reserve shall not be disturbed or removed for other than scientific or management purposes", and removal for airport safety/development does not fit the law, even if it has its own intrinsic value. The CAA's draft Environmental Impact Evaluation either failed to address or was overly vague about the impact tree removal could have on the affected species within the park and the overall environment. Bluff Point is a rare and unique coastal forest, unlike any other habitat in CT. It is used by a number of rare and endangered nesting shorebirds, migratory songbirds, and hawks. There must be other solutions aside from tree removal in a protected and critical habitat which were not considered by the airport as a way to meet FAA standards.

As a citizen who lives in Groton, CT, I consider this Bluff Point State Park a local treasure, as do many others, and it deserves continued conservation for the public in addition to the many rare and endangered species that utilize the park for habitat. I urge you to support its continued protection.

Thank you, Allison

**Allison Tuttle** 

From: BOB CLAPP

Sent: Friday, January 20, 2017 4:01 PM

To: <a href="mailto:robert.klee@ct.gov">robert.klee@ct.gov</a>; <a href="mailto:tom.tyler@ct.gov">tom.tyler@ct.gov</a>; <a href="mailto:Color:Bolder of the color: blue tom.tyler@ct.gov">color: blue tom.tyler@ct.gov</a>; <a href="mailto:Color:Bolder of the color:Bolder of the color: blue tom.tyler@ct.gov">color: blue tom.tyler@ct.gov</a>; <a href="mailto:Color:Bolder of the color:Bolder of the color: blue tom.tyler@ct.gov">color: blue tom.tyler@ct.gov</a>; <a href="mailto:Color:Bolder of the color:Bolder of the color: blue tom.tyler@ct.gov">color: blue tom.tyler@ct.gov</a>; <a href="mailto:Color:Bolder of the color:Bolder of the color: blue tom.tyler@ct.gov">color: blue tom.tyler@ct.gov</a>; <a href="mailto:Color:Bolder of the color:Bolder of the color: blue tom.tyler@ct.gov">color: blue tom.tyler@ct.gov</a>; <a href="mailto:Color:Bolder of the color:Bolder of the color: blue tom.tyler@ct.gov</a>; <a href="mailto:Color:Bolder of the color:Bolder of the color:Bolder of the color: blue tom.tyler@ct.gov</a>; <a href="mailto:Color:Bolder of the color:Bolder of the color:Bold

Subject: BLUFF POINT TREE CUTTING (PROPOSED)

Director Thomas Tyler, Directorof CT State Parks:

Commissioner Rob Klee, CT DEEP: Mr. Colin Goegel,Ct airports Authority:

#### Gentlemen:

I am concerned to learn that Connecticut is contemplating a plan to cut and remove trees that comprise part of the Bluff Point State Park.

I hope that all alternative solutions will be considered in order to avoid damage and adversely impact a rare and unique coastal forest that may be singularly representative of a coastal preserve along the entire coastline of the state.

Bluff Point forest may be legislatively protected within the definition of "coastal preserve" but even if it somehow is not protected, I would hope that those who are entrusted with protecting the environment as well as those holding public office but also love and respect the environment will study the airport need in depth and find a balance and solution that leaves this forest intact.

Sincerely, BOB CLAPP

From: David Branche

Sent: Friday, January 20, 2017 9:33 PM

To: Colin Goegel <a href="mailto:cgoegel@ctairports.org">cgoegel@ctairports.org</a>

**Subject:** Groton-New London Airport Environmental Assessment for Tree Obstruction Removal

I, David A. Branche

Alternative" and "The Modified Obstruction Removal Alternative" I am in favor of "The No Action Alternative". The vegetation I object to having removed is located in the Bluff Point Coastal Preserve and on Bushy Point in the Coastal Preserve. These "OLD GROWTH" trees are adding OXYGEN to the atmosphere and removing CARBONDIOXIDE whereas the aircraft you are being so concerned with add noise and pollutants to the environment. This OLD GROWTH vegetation also acts as a wind block and holds down the wave action in Bakers Cove and the Poquonnock River. I believe Bushy Point will suffer severely if denuded or cut back. Nonnative species will invade the area and destroy the beauty and environment the residents of Connecticut have fought to preserve for future generations. If the Ct. Airport Authority pursues the above two (2) Alternatives I object

The commercial and local political powers that be should not be allowed to destroy such a beautiful area in order to push their agenda of expanded use of Groton New London Airport to the detriment of the area in question.

to I will continue to object by appealing to my State Senator, State Representatives and the Ct. DEEP.

From: Georgia Hann

Sent: Friday, January 20, 2017 10:40 AM

To: Colin Goegel < cgoegel@ctairports.org>

Subject: Urgent

Hello Mr. Colin Goegel,

I recently read an alert that informed me of the proposed cutting of forested land at Bluff Point Park and I have to say that I am extremely devastated that this proposal is on the table. I am a young person, twenty-six years old, who has grown up in the area and I still live here now. I cherish coastal Southeastern Connecticut land deeply not only with my heart and soul, but with each breath I take of its salty-sweet air; each step I take through its gravel, sand, mud, shells, seaweed.... I urge you to please, please reconsider this proposal and find a solution that avoids the destruction of any mature forest that thrives in this unique coastal setting. We all know that there is precious wildlife that relies on this area, and not only that but there are many members of our human community that rely on it, too. We walk there to clear our minds, to reconsider our priorities, and to find peace and serenity. We release our daily trials and tribulations and take solace in the idea that this forest is something we are part of. Please don't take that away. Please let us continue to thrive alongside our fellow plants and animals. We already endure the noise of the airport that occasionally drowns our sense of hearing, but let us still sink into the visual richness and sensual comfort of each inch of the foliage blanket that buffers the cityscape, giving our heaviest thoughts a safe retreat and our lightest musings a place of discovery and realization. I beg you, without shame, to find a different solution to this small modern challenge of transportation. With critical consideration and creative thinking it is 100% possible to find an alternative way to both improve aviation safety and preserve the sacred natural landscape at Bluff Point Park. I know you can find another way. Will you please?

With sincerity and hope for the preservation and protection of this important park,

Georgia M. Hann

From: Jack Foley

Sent: Friday, January 20, 2017 10:18 AM

To: <a href="mailto:robert.klee@ct.gov">robert.klee@ct.gov</a>; Colin Goegel <a href="mailto:cgoegel@ctairports.org">cgoegel@ctairports.org</a>; <a href="mailto:tom.tyler@ct.gov">tom.tyler@ct.gov</a>

Subject: Bluff Point

Gentlemen,

For the reasons set out in the position papers submitted by Gosa and CFE, I am opposed to the extensive cutting of trees in this unique coastal forest which is proposed By CAA.

Jackson Foley, Groton From: Bo

**Sent:** Friday, January 20, 2017 3:24:36 PM

To: Colin Goegel

**Subject:** Don't destroy Bluff Point

Mr Goegel,

Please don't damage Bluff Point.

Please don't allow our beautiful state park to be 'maimed' by cutting down trees.

This land was thoughtfully set aside in perpetuity.

Short-sighted destruction does not grow back readily.

Damage to such land resources is value lost not only to humans, but also to resident flora and fauna.

The changes are long-range to permanent -- as the global climate demonstrates too well.

This is a rare and valued resource that we should not sacrifice to the 'progress' of an airport that was badly situated.

If changes are necessary at or for the Groton-New London airport, make changes within the borders of the facility.

I will not waste your valuable time by droning on and on -- but have registered my opinion, my request. Please, now, serve the public and prevent tree-cutting at Bluff Point State Park and Coastal Reserve.

-thank you WE Stedman Ledyard, CT

January 20, 2017

Colin Goegel

**Connecticut Airport Authority** 

334 Ella Grasso Turnpike, Suite 160

Windsor Locks, Connecticut 06096

Mr. Goegel:

I am writing in reference to the Groton-New London Airport Environmental Assessment for Tree Obstruction Removal.

I am opposed to (full obstruction removal alternative) and the (modified obstruction removal alternative) and in support of (no action alternative).

Trees in the Bluff Point Coastal preserve are an important environmental component to the area where

I live. They contribute to the oxygen in the atmosphere and the removal of carbon dioxide, protect my home and the homes of others in the area from wind and the resulting wave action in Bakers cove and the Poquonnock River. They provide habitat and support for the native and migrating wildlife in the area (the main reason for the establishment of the Coastal Preserve in the first place). The aircraft you are so worried about do nothing but pollute the air with their engines exhaust and noise.

Because I live so close to airport runway 5 it is of concern to me that you have such a lack of confidence in the proficiency of FAA licensed pilots to keep their motorized craft from landing in the area of Bluff Point Coastal Preserve (an area the Connecticut DEEP prohibits the entry of any motorized vehicles for any purpose). Leave the island near the end of runway 5 alone. The old growth vegetation keeps and preserves that land mass from being washed away.

The trimming or removal of old growth vegetation in the Coastal Preserve may well cause the introduction of non-native species which may invade and destroy what we in Connecticut have striven to protect and preserve for future generations.

Leave the old growth vegetation in Bluff Point Coastal Preserve as it is and do not give in to the commercial and political interests who want airport expansion at the expense of the environment and enjoyment by so many of this great and irreplaceable resourse.

Should the Connecticut Airports Authority persist in efforts to adopt the (Full Obstruction Removal Alternative( or the (Modified Obstruction Removal Alternative) I will most assuredly do all I can through complaints to my State Representatives and State Senators and the Connecticut DEEP to stop these misguided plans.

Thank You:

Annette P. Branche

Kadri

January 21, 2017

Colin Goegel Connecticut Airport Authority 334 Ella Grasso Tnpk, Suite 160 Windsor Locks, CT 06096

Dear Mr. Goegel:

My name is Paul Kadri, and I reside at the address listed above. My house would be one of the homes affected by the proposed clearing of the trees. I'm a full-time resident at this address. I have 3 main concerns about the proposal as I understand it. They range from environmental to public safety. I once held the position as Superintendent of Schools, and had many discussions about the height of stadium lights and the potential location for schools as a relates to this very airport. I understand the need for standard benchmarks for safety, but I also believe they need to be adapted to the unique environment in which they exist. Being educated in engineering, I also believe that an assessment of probabilities needs to be considered. What I mean by that, is a situation needs to be evaluated in worst-case scenarios from a sense of likeliness to occur. Let me offer a simple example. The removal of the trees will clearly have a negative impact in the event of a storm surge or high wind event. What is the probability that this region will get such a weather event in the future, and what would the escalated negative effects be on the immediate area? Compare that to the likelihood of a plane descending at a rate that would bring it in line with the trees and still be able to reach the runway safely? What is the likelihood of that happening?

Let me get to my 3 concerns. First, and I am in no way an expert in this area, but this region is blessed with a State park and a cove that has very little current. To wildlife, year-round or migrating, this has to provide an ideal location for some animals to utilize. I always worry whenever a drastic environmental change is made to a piece of property. Will that force certain animals to find other locations to have babies, seek shelter/safety, or eat. There is also the possibility of new animals populating the land that now will have less shade. We have an ideal environment at the moment, and making an irreversible action seems unnecessary unless of an overwhelming, compelling reason to the contrary.

Second, one of the "animals" that populate this region during a large part of the year (and when the greatest air traffic is at the airport) are people. During the late spring to early fall months, the beach is extremely populated, directly in line from a plane at the altitude and position of the trees heading in the direction of the runway. Also, because of the lack of current, boats dock between the trees and the runway. Typically, they stay for weekends. Public safety has to be the top concern. While the safety of the pilot and those on the plane are also of grave concern, a simple consideration of the number of people affected in a catastrophic event would conclude that those recreating between the trees and the runway need to be protected as a priority. Not to be morbid, but someone who chooses to fly a plane, understands an inherent risk, just as someone who drives a car. Someone going to the beach with their family is not considering that risk. I believe at this moment, the trees act as a deterrent from any pilot who may wish to fly to low, either because of lack of knowledge or stupidity.

Third, there is no question that the islands, the sand dunes between the beaches and the islands, and the trees provide a layer of protection from storm surge and high winds from storms. Having stayed in my house during the hurricane of a couple of years ago, I visually saw those trees reducing the winds at that level as the storm circled and sent the winds from different directions. My house took a much greater wind impact, when the storm sent winds from the airport into my house then when the winds had to come through the trees into my house. It was dramatic. At higher elevations, this was probably not noticed, but at elevations at or below the tree levels, there was certainly a decrease in impact. While the trees don't affect the height of the tide, reducing surface level wind does reduce the surge.

I hope you find these 3 concerns to outweigh any ideal guideline or less valuable benefit that is being considered. I would like to end with a thought, that I again am not an expert on, but seems to make some sense. If I'm a plane in peril, and I have descended to a level equal to the height of the trees, I am most likely on a decent. In other words, it is unlikely that I'm strafing the water coming into the trees level (that would open up a whole different set of issues). If I'm on the descend, I'm never making it to the runway. As a pilot, I would assume that I could either make a water landing. If I had visibility I would not head towards the trees because the calmest water is to the left, and the largest body of water is in front of the trees. Removing the trees could actually give me a false sense that I could land on the beach (something we want to avoid at all cost, assuming we allow people on the beach). If I'm in peril and don't have control of my plane, wouldn't the trees act as a crude, but semi-flexible, retaining wall; similar to what racecar drivers have if they crash. I would think a plane that goes into a tree, would be far more likely to survive then if they hit the much harder water directly or some other structure. The beach may be the only other place with "give", but we have already indicated we do not want the planes landing there. So, I wonder if the trees are actually a safety benefit for pilots in trouble. They provide a retaining wall with give, and they encourage a pilot with limited control to make a water landing in a more desirable place for their survival.

If you have any questions about what I've said, please feel free to call me
Thank you for reading my note. I hope I have made a persuasive argument.

Sincerely

Patr J. Kadri

\_

From: Alexander Wood

Sent: Monday, January 23, 2017 6:02 PM

To: <a href="mailto:robert.klee@ct.gov">robert.klee@ct.gov</a>; <a href="mailto:tom.tyler@ct.gov">tom.tyler@ct.gov</a>; Colin Goegel <a href="mailto:cgoegel@ctairports.org">cgoegel@ctairports.org</a>>

**Subject:** Bluff Point Tree Cutting

Hi,

I recently learned about the Bluff Point tree cutting project that proposes to cut trees down at Bluff Point in order to make a clearer approach path for the Groton-New London Airport. I strongly oppose the airport having an affect on Bluff Point, which should be managed independently of the airport. Cutting into a coastal preserve for the sake of an airport is a completely inappropriate action, and is putting the interests of the few at the airport over the many, both of the environment, and the people who use Bluff Point recreationally. I hope that this poorly thought out plan is changed so that the airport does not affect Bluff Point.

Alex

\_\_

Alexander Wood University of Connecticut

**From:** Amy Paterson

Sent: Monday, January 23, 2017 10:07 PM

To: Colin Goegel <a href="mailto:cgoegel@ctairports.org">cgoegel@ctairports.org</a>

**Cc:** Klee, Robert <<u>robert.klee@ct.gov</u>>; Tyler, Tom <<u>tom.tyler@ct.gov</u>>; Stevens, Graham

<Graham.Stevens@ct.gov>

**Subject:** Comments: Proposal for Selective Tree Removal at Bluff Point State Park

Dear Mr. Goegel:

On behalf of the CT Land Conservation Council (CLCC), thank you for this opportunity to provide comments on the Federal Aviation Administration (FAA) and Connecticut Airport Authority (CAA) proposal for selective tree removal at Bluff Point State Park in Groton.

As the umbrella organization for the state's land conservation community, including its 137 land trusts, CLCC advocates for land conservation, stewardship and funding, and works to ensure the long-term strength and viability of the land conservation community in Connecticut.

As you know, Bluff Point State Park and Coastal Reserve is the largest undeveloped parcel of coastal woodland on the Connecticut shoreline. Its unique and significant ecological resources include habitats supporting state-threatened and-endangered species. According to the DEEP website, "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." (<a href="https://longislandsoundstudy.net/2012/10/bluff-point/">https://longislandsoundstudy.net/2012/10/bluff-point/</a>)

We are not only concerned about the impacts of this project on this exceptional conservation area, but also the precedent it may set for similar projects affecting State Parks and other conservation areas around the state. State Parks belong to all of us and the public has an expectation that these lands will be preserved in trust for the benefit of Connecticut's citizens for those purposes to the greatest extent possible.

Therefore, while recognizing the public safety concerns underlying the proposal, we respectfully ask that all tree-removal plans be coordinated as closely as possible with the CT Department of Energy and Environmental Protection (DEEP) and other stakeholder organizations with expertise to ensure that impacts to the local ecosystem are not only minimized but undertaken in a way that may enhance habitat for the affected species within the park and coastal reserve.

Thank you for your consideration.

Sincerely,

Amy Blaymore Paterson, Esq.
Executive Director
Connecticut Land Conservation Council

From: Ann-Marie DeGraffenreidt

**Sent:** Monday, January 23, 2017 10:45 PM

**To:** robert.klee@ct.gov; Colin Goegel <cgoegel@ctairports.org>; tom.tyler@ct.gov

**Subject:** Bluff Point

I am writing because I learned of the proposal to cut trees that could damage as many as 40 acres of Bluff Point State Park. I oppose damaging this unique forest park with tree cutting. I am writing to ask that you protect the many rare and endangered species within one of Connecticut's most beloved state parks by not engaging in this tree cutting. Thank you.

Ann-Marie

From: Jack McDonald

**Sent:** Monday, January 23, 2017 9:02 PM

To: tom.tyler@ct.gov; graham.stevens@ct.gov; robert.klee@ct.gov; Colin Goegel

<cgoegel@ctairports.org>

**Subject:** Bluff Point State Park -- Disapproval of proposed tree cutting

Dear Sirs,

I am writing to you with great concern over the plan to remove 5% of Bluff Point's natural tree cover in order to accommodate the requirements of a federal organization, or for other purposes I am not yet aware of. As I'm sure you're well aware, the vast majority of the CT coastline is developed for residential and commercial

use. This makes such a vast natural preserve so important to keep not only for the benefit of numerous wildlife, but for the current population in the area and posterity.

I simply do not understand how this airport has existed for 50+ years with similar tree cover, and now is suddenly out of compliance and endangering pilots. Groton-New London airport is not a commercial airport, so I see no reason why we all must bear the burden of accommodating an ordinance that is entirely unnecessary. At your convenience, please provide a cost-benefit analysis of this endeavor as I fail to see how this will benefit the airport, let alone the surrounding area.

Having lived across the water from Bluff Point and the airport for over a decade, I have seen numerous planes land without issue. In fact, there have been many occasions where I've seen Coast Guard C-130s practicing landings on this very approach over Bluff Point. This big a plane has to be the biggest to land at the airport in decades, if not ever. So I am unable to comprehend how this is a safety issue.

Lastly, the prevailing winds, especially in the summer when the majority of aircraft volume is utilizing the airport, is from the Southwest (once the seabreeze kicks in), which would make the runway facing out towards Fishers Island the most useful runway, and eliminates the need for such modifications.

I look forward to hearing your responses, and analysis on this project.

Best,

Jack

From: JONATHAN TOWNE

Sent: Monday, January 23, 2017 4:03 PM
To: Colin Goegel < cgoegel@ctairports.org>

**Subject:** Bluff Point

Mr. Goegel,

I am opposed to the cutting down of trees at Bluff Point. This is a State Park/Coastal Preserve and should be left in its natural state for the enjoyment of all. Open clear cutting will fill in with invasive vines and be unusable to the thousands of people who use this park on a regular basis.

Please stop this from happening!

Sincerely,

Jonathan Towne

From: Kate Chanin

Sent: Monday, January 23, 2017 2:56 PM

To: robert.klee@ct.gov; tom.tyler@ct.gov; Colin Goegel <cgoegel@ctairports.org>

Cc:

**Subject:** FAA/CAA planned removal of trees at Bluff Point State Park

Dear Sirs,

I am a local resident who frequents Bluff Point and was alarmed when I heard that 40 acres of trees may be cut down to accommodate the Groton airport runway approaches. As a state park, I was under the impression that Bluff Point land and the flora on it were protected from such action? Also, the airport has functioned without incident in its current configuration, why the need to remove trees not located on airport property? Please respect the protected status of Bluff Point State Park and leave the trees alone. I'm sorry I missed the public hearing in December, I saw no announcement in the local paper and would have been interested in hearing the government's justifications for the proposal.

Sincerely,

Kate Chanin

From: Lynn Schroder

Sent: Monday, January 23, 2017 3:18 PM
To: Colin Goegel <a href="mailto:cgoegel@ctairports.org">cgoegel@ctairports.org</a>

**Subject:** Bluff Point Tree-Cutting

Dear Sir,

Please stop plans to cut trees at Bluff Point. It is one of the few places in Groton of green space and habitat. It is encumbent upon leaders and decision-makers to accommodate needs other than commercial/economic enterprises.

Sincerely, Lynn Schroder Sent: Monday, January 23, 2017 9:55 AM

To: Colin Goegel < cgoegel@ctairports.org>

**Subject:** Bluff Point

I have been out of the country and while catching up on my mail and the local news I was appalled to read that numerous trees were planned to be cut down at Bluff Point in order to improve runway safety at Groton-New London airport. Bluff Point is truly a unique resource and its preservation is important for the myriads of people who have enjoyed its pristine beauty since its designation as a coastal reserve in 1975 as well as for the enjoyment of future generations.

Responding to the concerns of area citizens, I, while serving as State Representative of the 40th District (Groton/New London), sponsored the legislation which led to the Coastal Reserve. Originally it was proposed that all powered vehicles should be banned from the Reserve.. It was decided that emergency powered vehicles should be allowed in the interest of public safety Likewise, some restrictions would benefit the public by preserving wetlands and protecting wildlife. That is why, since the Reserve was created I too have supported the necessity to cull some of the deer population periodically. This action, though, is a far cry from random hunting.

In that spirit, I urge the Connecticut Airport Authority to develop a plan to remove as few trees as possible in order to preserve the biological and botanical integrity of the preserve.

Than you for considering this letter at this late date.

Patricia T. Hendel

Sent: Monday, January 23, 2017 3:04 PM
To: Colin Goegel < cgoegel@ctairports.org>

**Subject:** Bluff Point tree removal

Dear Colin Goegel,

I oppose the removal of any trees from Bluff Point State Park. I have seen the plans and am appalled at the amount of tree cutting that will take place in a State Park that has rules to protect it. I thought this was a Coastal Reserve, one of the few, that was safe from this kind of proposal. Here is what I found on the DEEP website: Bluff Point was designated a "Coastal Reserve" by a special act of the Connecticut legislature in 1975 to establish the area "for the purpose of preserving its native ecological associations, unique faunal and floral characteristics, geological features and scenic qualities in a condition of undisturbed integrity".

I hike Bluff Point often and know that most of the trees are of the same height and would be game to being cut. This would be akin to a clear cut. Since this is a Coastal Reserve, this would affect the environment in ways that we can't fathom - animals, plants, dirt quality, flood management, storm and wind surges. Taking out these trees would affect the whole park, I have seen what the storm of 1938 did to the park and it

was substantial. If these trees were taken out willfully and we had another storm like that (with climate change a real possibility) it could alter the landscape not only in the park, but surrounding businesses and neighborhoods. Habitat loss can be so devastating, even though the immediate effects are not always clear, unfortunately in years passing one can't always put back what you took away.

On a beautiful Saturday, going to Bluff Point there is hardly a parking space to be found. So many people enjoy this park as it is. The airport is functioning for a small population. Anyone who wants to go to Bluff Point for respite, or recreation can do so - it's open for all.

Finally I am concerned with the amount already of invasive plants that are at Bluff Point. Whenever something is cleared in New England vines take over. Only healthy older forests are able to have enough tall trees to shade out the invasive plants. Some parts of Bluff point that have been cleared before are so entangled that there is no way to use them recreationally and do not function as very good habitat. Hiking and bike trails have been lost. If even more of these invasive plants have habitat they can thrive in in the park, we not only will lose recreational value, but they are a real eyesore! Is this how we are attracting people to Connecticut? By making State Parks less appealing for people to visit? I hope not, please save Bluff Point Coastal Reserve from this extensive tree cutting!!!

Lover of Bluff Point,

Rebecca Noreen

Sent: Monday, January 23, 2017 10:31 AM

To: Colin Goegel < cgoegel@ctairports.org>

**Subject:** Bluffpoint trimming

Dear Mr. Goegel,

Please preserve our trees at Bluffpoint. The proposed cutting for airport access appears to be quite excessive and will permanently alter the landscape we most cherish.

Regards,

Sarah Holmes Concerned citizen From: syma ebbin [

**Sent:** Monday, January 23, 2017 10:08 PM

**To:** David Kozak <<u>david.kozak@ct.gov</u>>; Colin Goegel <<u>cgoegel@ctairports.org</u>>;

tom.tyler@ct.gov

**Subject:** Comments on the Proposal of the Groton New London Airport to Cut Trees at Bluff Pt

and Beyond

Mr. Colin Goegel Connecticut Airport Authority 334 Ella Grasso Turnpike, Suite 160, Windsor Locks, CT 06096

Dear Mr. Goegel,

I am writing to oppose the recent Connecticut Airport Authority (CAA) proposal to remove trees on Bluff Point State Park and areas surrounding the Groton New London Airport and strongly urge the CAA to conduct a full Environmental Impact Statement as required under the National Environmental Policy Act. There are several reasons for this, which I will elaborate upon below.

Bluff Point, as a mature coastal forest, represents one of the largest, if not the largest, example of a fairly rare habitat in Connecticut. The Department of Environmental Protection is seeking to maintain habits such as these for their wildlife values in addition to recreational and economic importance to the region.

Bluff Point was created in 1975 as a Coastal Reserve and as per the stated intent of its originating legislation (Special Act NO. 76-27), is not allowed to be developed. To wit: "no improvement shall be undertaken which does not contribute to the preservation of the natural, scenic, historical or ecological values of the reserve..."

Bluff Point lies within the Atlantic Flyway and constitutes an important resting area for migrating birds. There has been no analysis of the impacts of the proposed cutting on migrating birds, many of which may be rare or endangered as well. At least eight avian species of concern may forage and nest in the upland area. Many different owl species frequent Bluff Point and its environs, including the Short Eared Owl (Threatened) and the Long Eared Owl (Endangered).

The federal Coastal Zone Management Act (CZMA) of 1972 provided the state of Connecticut with the opportunity to develop a coastal management plan and mandated that all proposed development, (including private, state and even federal), within the coastal zone must be consistent with this plan. Connecticut's coastal management act (CCMA) advocates the preservation and enhancement of coastal resources and gives a preference to water-dependent uses among its list of goals (22a-94). The CCMA also specifically disallows the construction of major new airports and the substantial expansion of existing airports within the coastal boundary. The entire GNL Airport as well as Bluff Point falls within the coastal zone.

Previous cutting conducted by the airport several years previously, created approximately 8-9 acres of cleared land which still scars the park, due to the exceedingly poor logging practices used by the contractors who conducted the clear cutting. All vegetation within the 8-9 acre parcel was clear cut and chipped, including blueberry shrubs and other small plants with high wildlife value. The chips were left on site, creating a spongy

mass approximately 4- foot thick which prevented regeneration of the area and exacerbated erosion on the hillside. The airport has shown its disregard for good environmental practices and cannot be trusted to conduct "selective cutting: without a well-specified and vetted plan. The DEEP has the final authority to review and approve, and I strongly believe an EIS will allow the necessary level of review to ensure the health of the property. The airport's own analysis shows only ~two trees which interfere with sight lines. Since the targeted forest is mature, it is not clear why such as massive area is slated for cutting. This is especially true given the declining number of operations at the airport and complete absence of commercial service.

Where is the cost benefit analysis to demonstrate the differences in safety that will be achieved given the different cutting plans? How many lives will likely be saved with each alternative? Without such an analysis how can the environmental costs be balanced against the added benefit to safety?

Thank you for allowing me the opportunity to comment on this proposal. To summarize, I urge you to reject plans to cut trees on Bluff Point and the areas surrounding the airport and strongly urge you to undertake a complete EIS to better understand the environmental, social and economic impacts of this proposal. Please confirm receipt of these comments. You can reach me at 860 445-0113. I look forward to hearing the outcome of your decision-making.

Sincerely, Syma A. Ebbin, PhD. Sent: Monday, January 23, 2017 2:08 PM

**To:** Easton, Glenn < <u>GEaston@chacompanies.com</u>>; <u>cgoegel@ctairports.org</u>; Loewenstein,

Jean <<u>RLoewenstein2@chacompanies.com</u>>; <u>mparsons@ctairports.org</u>; Martelle Sr,

Jeremy < JMartelle@chacompanies.com>

**Subject:** Groton Airport Comment

First Name: Annie

Last Name: Oosterwyk

#### Question or comment?

Mr. Colin Goegel Supervising Engineer Windsor Locks, CT 06096 January 23, 2017 Mr. Colin Goegel, I am writing to register my concern about the Groton-New London Airport's plan to clear trees on Bluff Point State Park. I am a resident and taxpayer in Groton and use the park extensively, often daily, for recreation, running, biking and walking my dog. I am very concerned that the airport's plan will diminish the value of this property as it contributes to my daily physical and spiritual uplift, and as a continuation of the green trail that GOSA and public lands are making available to the public. The area designated for clearing is the very section of the bluff that I think of as "dessert" before coming to the amazing water view at the end. I understand the airport's need to be in compliance with federal guidelines in order to receive funding for their projects, but there must be another way. This is a high use park and enthusiasts like me really care about this beautiful and rejuvenating place. So called "selective" clearing has taken place before and that area is still unrestored, with logs removed and a thick carpet of wood chips that nothing can reclaim. It would be a terrible shame if more of Bluff Point were blighted in this way. Sincerely, Annie Oosterwyk

Sent: Tuesday, January 24, 2017 4:26 PM

**To:** Easton, Glenn < <u>GEaston@chacompanies.com</u>>; <u>cgoegel@ctairports.org</u>; Loewenstein,

Jean <<u>RLoewenstein2@chacompanies.com</u>>; <u>mparsons@ctairports.org</u>; Martelle Sr,

Jeremy <JMartelle@chacompanies.com>

**Subject:** Groton Airport Comment

First Name: Douglas

Last Name: Schwartz

#### Question or comment?

**Douglas Schwartz** 

Comments on the Groton

Airport DEA&IA At the December 8, 2016 public hearing, the CT Fund for the Environment attorney described the "draft" document as "sketchy." This does a disservice to sketchy documents. The "draft" is far from rising to the level of sketchy. It is more of a conceptual document, preceding a serious draft. It is safe to state each attendee at the public meeting left entirely unconvinced of any need for the proposed actions. It quickly became obvious to all that there was no justification, other than federal overreach and excessive funding seeking a use. As a taxpayer, I found the entire process offensive and arrogant. The "draft" was obviously submitted in bad faith. There was no notification made to the regional federally recognized tribes There was intentionally no unambiguous mention made of the FAA's role in funding the proposa, instead referring to the CAA as the "sponsor" I There was only a feeble token effort made to adhere to the National Historic Preservation Act (compulsory compliance to which is triggered by the federal funding issue) No mention was made of the obvious: that the proposed tree removal would be an ongoing process, requiring continuous upkeep at probably less than decade intervals No coherent need for the proposal has been provided No reference was provided to the FAA's policy on tree removal along runway approaches. It is essential that a sincere draft be published, after consultation with state and federal tribal officials, and with input from regional NGOs represented at the hearing, including Groton Open Space Association (GOSA), CT Audubon Society and CT Fund for the Environment. The fact that a state analyst was forced to ask questions at a public hearing underscores the extent of federal arrogance present in this instance. It is hard to believe an outreach effort was not initiated prior to a "draft" document being assembled. Need No coherent, quantified explanation was provided for the proposed activities. A citizen questioned the accuracy of the purported usage figures, which work out to around one landing or takeoff every 15 minutes, 24 hours a day and 365 days a year. In short, the hearing attendees believe this to be a lie. The excuse that there is no breakout for useage statistics for the secondary runway does not fly. This data can easily be collected over a defined time period (e.g. a month) and then extrapolated into an annualized figure. It is obvious very few planes use the secondary runway, the justification for the tree removal at the southern end of Bluff Point. Seeing as how Air Force One and Two regularly use the primary runway (as recently as October), it becomes difficult to comprehend any safety hazard. Need is a function of a cost/benefit analysis. If the ratio between the numerator and denominator in that equation becomes too high, the need for any proposed undertaking becomes lowered and even made unaffordable. Neither the costs or benefits have been explained or quantified. Absent basic economic information, the public has no basis for providing input regarding which alternatives offered in the "draft" document might be appropriate. Cost No mention of the cost was offered. The public must insist upon such information so we can decide whether our funds are being appropriately expended. As one citizen noted at the public meeting, the glossy paper the handout was printed on was extravagant. In order to determine if our public funds are properly being expended, the public needs to know the following: How much is being spent on the consultants retained to produce this joke of a DEIS? The cost of the entire project, including realistic projections of periodic maintenance over coming decades. Benefit The "logic" underlying this proposal appears to be that trees extending above a certain height above the ground surface pose a threat to aviation. This is ridiculous. If the ridgeline at Bluff Point State Park (BPSP) was higher or lower than it is now, the slope of the runway approach would be shifted higher or lower commensurate with the elevation change. Yet trees would be judged to be penetrating into the lower or higher runway approach path, and would be targeted for removal. If the ridgeline was 10 feet above sea level (considerably lower than it is now), we can be certain trees would be targeted for removal because such is the case on Pine Island, at an elevation of only a few feet along the approach to the primary runway. Removing or topping trees simply acts as a pruning of the overall forest, encouraging the surrounding shorter trees to rapidly fill the vacuum. Within 10 or so years the forest will be back to where it started from. We know that 79 years ago, there were zero trees present on that portion of BPSP. Yet the "draft" document Intentionally underplays the frequency of the maintenance which would be required to periodically repeat the tree removal operations, describing a "20-year design life." 10 years would probably be overly optimistic. No estimates of the heights of intruding trees have been provided, only that one alternative will be to leave all trees under 20 feet. Forestry mechanics As was noted at the December meeting, no information has been provided in the "draft" document that spells out how the proposed logging will proceed. How will the logging be conducted (mechanized cutting or hand cutting with chainsaws), what are the paths of ingress and egress from the harvest area, will felled trees be removed or left in place, where will landings be located if trees are to be removed? If trees are to be removed will they be skidded or removed by a transporter? All such questions are routinely answered in every DEEP forestry project before it commences. Unlike those who maintain this is some sort of a mature forest ecosystem at BPSP, it is actually a young growth of trees, none of which predate the 1938 hurricane, and most probably appear much later than that event. LIDAR imagery reveals the field and pasture network in place until abandonment in the middle of the 20th Century. If we assume an abandonment date of 60 years ago, it does not require a forestry degree to realize that if the forest appeared in so short a span, any tree removals which only thin

out the tallest trees are only fleeting their impact on forest height. Because of the peninsula configuration of the location the site is an ideal candidate for a controlled burn. DEEP regularly conducts such operations. IF it is truly necessary to remove trees, it would be far more effective to conduct a burn and then maintain the cleared swath through periodic burns or mowing. Otherwise it will be necessary to repeat this intrusive project at relatively short intervals of years. No information has been provided on who will conduct tree removal (government employees or contractors), who will mark trees for cutting (state foresters?) and who will monitor tree removal operations for compliance with relevant statutes. Cultural Resources The most obvious omission in this regard is any mention of the Winthrop House foundation, located immediately outside the proposed cutting area. Trail signage directs visitors to the foundation, where a display created by a local Eagle Scout contains photographs and text describing the history of this structure, dating back to 1648. This means it is the sixth oldest European structure in the state. It might be nice if impacts were avoided during any tree removal. Although heavy greenbriar growth obscures much of the terrain in that portion of BPSP, there are at least several significant Native American ceremonial stone constructions present within and immediately adjacent to the cutting area. (see below) A proper Section 106 ground survey to avoid impacts to such constructions would require the identification of any such features in the project area. Statutory Considerations There has been a complete (and obviously intentional) failure of the FAA to meet its obligations under the National Historic Preservation Act, specifically a failure to conduct a Section 106 review. There has been no notification of, or consultation with, the southern New England federally recognized tribes to determine if National Register nomination eligible ceremonial features might be present. As the regional FAA office well knows, in 2007 the proposed runway extension of the Turners Falls airport was prohibited for precisely this reason. Under Connecticut General Statutes 10-381, et. seq. Native American "sacred sites" and associated features are protected. Desecration or disturbance of such features is a Class D felony, with penalties of up to five years in prison. The CT Council of Environmental Quality has communicated to DEEP its obligation to adhere to the CGS 10-387 (reproduced below). CAA is equally bound by said statute. Sec. 10-387. Review by state agencies of policies and practices for consistency with archaeological preservation. Each state department, institution and agency shall review, in consultation with the Department of Economic and Community Development, their policies and practices for consistency with the preservation and study of the state's archaeological sites and sacred lands and sites. Such review shall include preparation of an evaluation document which specifies projects and programs requiring detailed consultation to identify and protect archaeological sites and sacred lands and sites. Hazardous to pedestrians Hundreds of people normally recreate at BPSP during a normal day. The trees allegedly intruding into the airspace above the approach to the secondary runway serve as a buffer between hikers and small aircraft landing negligently. Remove the trees, and those hiking in BPSP have nothing to cushion the impact from planes flying into the terrain. Exacerbating previous errors As was mentioned at the December public meeting, the light stanchions in Pine Island Bay proved fatal in the case of a Lear Jet in 2006 which mistook them for runway lights during dense fog. As highway engineers long ago realized, straightening roads frequently makes them less safe by

encouraging speeding. Excessive lighting and tree removal can foster similar careless piloting if taken too far. When the Lear Jet plowed through the light stanchions in 2006, was any consideration given to the fact that they had contributed to the accident? Of course not. They were quickly replaced. Bureaucracies are inherently adverse to admitting error and accepting responsibility for negative consequences stemming from their actions. Air Force One and Two regularly land on the primary runway. This would hardly occur if the airport was somehow unsafe. 2016 and 2015 press accounts are linked below in support of this fact. Ulterior motives As was mentioned at the December public meeting, the public is suspicious of the impetus for the proposed tree removal. We know there is a proposal to create an enterprise zone surrounding the airport. The FAA and CAA have destroyed their credibility with this joke of a DEIS, and the public believes there is an ulterior motive afoot. Fraudulent contracting The "draft" EIS is so minimalist that the FAA inspector general needs to investigate the circumstances surrounding the contract for the consultants retained to produce the document. References Air Force One safely using Groton Airport https://twitter.com/kimberlydrelich/status/601032046928990208 http://www.courant.com/hc-president-obama-speaks-at-new-london-coast--010-photo.html Deaths at Groton Airport resulting from placing light stanchions in Pine Island Bay http://aviation-safety.net/database/record.php?id=20060602-1 Photographic evidence that there were zero trees at Bluff Point 79 years ago http://connecticuthistoryillustrated.org/islandora/object/30002%3A1844 http://www.groton-ct.gov/history/digitized/standard/PBS-10.jpg http://cslib.contentdm.oclc.org/cdm/ref/collection/p128501coll0/id/943/rec/87 Guidance on what legitimate DEA&IA looks like http://www.dec.ny.gov/permits/55215.htm https://www.epa.gov/nepa/environmental-impact-statement-rating-systemcriteria http://energy.gov/nepa/environmental-impact-statements-eis http://web.evs.anl.gov/uranium/eis/whatiseis/index.cfm https://www.epa.gov/nepa/national-environmental-policy-act-review-process https://www.environment.fhwa.dot.gov/projdev/docueis.asp

https://en.wikipedia.org/wiki/Environmental impact statement

January 24, 2017

Colin Goegel CT Airport Authority 334 Ella Grasso Turnpike, Suite 160, Windsor Locks, CT 06096

Dear Mr. Goegel:

I am writing to express my opposition to the proposal of the CT Airport Authority to cut an unspecified number of trees on Bluff Point State Park property to meet FAA safety guidelines at the Groton Airport. I am a frequenter of Bluff Point with my family and an active member of the Groton Open Space Association.

The Draft Environmental Assessment prepared by the CAA is inadequate in many respects. (See the statement of CT Fund for the Environment). I urge the CAA to conduct a full Environmental Impact Statement on this project before moving forward with any proposal for tree cutting at Bluff Point. At the present time there are far too many unknowns concerning the impacts of the proposed tree cutting on numerous species of birds, animals, and plants at Bluff Point. Bluff Point State Park is not just another state park. It is a unique coastal forest and habitat, unlike anything else in the state. While I support CAA's goal of improving safety at the airport, the CAA has a lot of work to do to assess the potential damage of any tree cutting and to provide a mitigation plan for the project. As a state agency you are obligated to uphold the mandate in the 1975 legislation establishing the park. That legislation says that "living and nonliving resources contained within the reserve shall not be disturbed or removed for other than scientific or management purposes..." Have you really considered how to meet this mandate?

I strongly urge the CAA to consider other options besides tree cutting to achieve the safety standards required. Please reconsider the rejected option to "shorten" runway 33, which is already 4,000 feet long. Do the planes using this runway really need 4,000 feet? It is very possible they do not. The CAA needs to consider this option and share that assessment with the public.

The forest of Bluff Point is a unique and special coastal forest, the largest in the state of CT. Please find a solution to airport access that does not include cutting this rare coastal habitat

Sincerely,

Elizabeth Raisbeck

Colin Goegel Connecticut Ariginta Authority 334 Ella Grasso Tungeke, Srite 160 Windsor Locks, Ct 06096

Dear Sir;

Please reject the proposed removae of Trees around Grotin/Newlondon Airport! Naverbus there been an accident related to obstructed site line by Trues.

the No Action Alternative is Best. (Trees have reached their maximum growth). the Modified Action Atternative would only result in more Action proposals at a later date. (Trees grow).

Gnoton/Non London lies within a Densitive environmental Coastal region -Vulnerable to oll environmental hayands. Trees offer protestion to nature and to people and homes. Please do not Tanger with the environment!

thank you -

Sincerely, Miedud autson

From: Bigi Ebbin

Sent: Tuesday, January 24, 2017 10:58 AM
 To: Colin Goegel < cgoegel@ctairports.org >
 Subject: Tree Removal at Groton-New London Airport

Dear Mr. Goegel:

I am writing to you in opposition of the tree removal at Bluff Point State Park and Coastal Preserve, by the Groton-New London Airport.

My family has been residents of Jupiter Point, Groton since the 1930's. We have enjoyed Bluff Point, including the sandbar and surrounding coastal areas, our entire lives. This is a special and unique area that will be greatly harmed by extensive tree removal.

This area was proclaimed a protected "coastal preserve" by the state legislature in 1975 and that edict should be respected and upheld. Tree cutting will negatively affect the many rare and endangered birds that live there. This area is used extensively by boaters, swimmers, hikers and bicyclists. The beauty and natural state of the park are an important draw for these recreational users who also contribute to the economy of the surrounding neighborhood.

The airport impacts this area with the noise of the aircraft that fly directly over residential Jupiter Point. They should not do away with trees that buffer the park and its animal inhabitants. You should instead be seeking a way to minimize the impact of the airport for all who live there and enjoy the area.

Sincerely, Bigi Ebbin

**From:** cathy cormier

Sent: Tuesday, January 24, 2017 3:01 PM
To: Colin Goegel < cgoegel@ctairports.org>

**Subject:** Bluff tree removal

Dear Colin.

I've been a Groton resident for almost 20 years and consider Bluff Point Coastal Reserve a 2nd home. I attended the hearing last month regarding the plan to cut down tall trees in the park to clear path for planes landing.

My concern was only amplified after the hearing. Many basic questions and concerns went unanswered.

-Why NOW is there concern about these very mature trees which probably aren't going to grow any higher? It's my understanding the airport usage has diminished not increased over the years.

-Cutting the tall trees will be CLEAR CUTTING. All the trees are tall. Clear cutting would devastate those areas of the Park. Those trees will never grow back!!

- -What about erosion? What about the wildlife habitats on the island as pointed out by the Audubon society? Where are the studies?
- -The Park is a TREASURE which so many more residents and tourists from all over New England enjoy. Not just the small segment of those who benefit from airport.

I urge you to continue to preserve the integrity of this Coastal Reserve for all the reasons it was designated as a Coastal Reserve to begin with!

Thank you.

Cathy Cormier

From: Chuck Toal

Sent: Tuesday, January 24, 2017 11:26 AM

To: Colin Goegel <a href="mailto:cgoegel@ctairports.org">cgoegel@ctairports.org</a>

**Cc:** robert.klee@ct.gov;

tom.tyler@ct.gov;

**Subject:** Bluff Point tree removal

Dear Mr. Goegel,

First, allow me to introduce myself. I am a 5 year resident of Groton and a member of the Groton Open Space Association (GOSA). I am a founding director of the Colchester Land Trust as well as Vice Chairman of the Connecticut Land Conservation Council Steering Committee. I work daily to create and enforce agreements that preserve environmentally sensitive land *permanently*.

It has come to my attention that the Federal Aviation Authority and the Connecticut Airport Authority are planning a selective tree removal on the 800 acre Bluff Point State Park. As you know, Bluff Point State Park and Coastal Reserve is the largest undeveloped parcel of coastal woodland on the Connecticut shoreline. The current plan will impact up to 40 acres of this preserve which is home to over 200 species of birds, including several that are on the endangered and threatened species list. The Connecticut Department of Energy and Environmental Protection has a mandate under Act No. 76-27 to ensure that any actions on this property are consistent with that act and do not negatively impact its environmental values.

While I understand the FAA's concerns for safety (I have flown almost 2 million miles as an airline passenger) I know the environmental damage that can be done at the hands of loggers and heavy equipment. As a member of GOSA, I am supporting and willing to actively defend the statement we have issued on this subject (attached) A full environmental impact study must be done. Anything less would be in violation of the intent of the conservation agreement. In addition, there are suitable and safe airport infrastructure alternatives to the tree cutting on Bluff Point that would avoid any impact on the preserve.

I visit this park every week. It was saved to provide a refuge for wild life, a place for families to recreate and to preserve the quality of life in a community that is largely urban. At the time of it's conservation, Special Act No. 76 - 27 provided *permanent* protection of the conservation values of this land. I expect the FAA and CAA to abide by that regulation and to fully implement alternatives *before* tree cutting on Bluff Point.

The current plan has only vague statements about the environmental impact and no plans for restoration. Only a full environmental study will determine the consequences the tree cutting will have on this fragile land. No work should be done before that study is compete and open to public comment.

I thank you for taking this matter seriously. Please do what is right for Bluff Point and the residents of Connecticut. Your consideration is very much appreciated and I welcome a response.

Chuck Toal

From:

Jyl Warn

Sent: To: Tuesday, January 24, 2017 9:22 AM Colin Goegel <cgoegel@ctairports.org>

Subject:

**Bluff Point** 

Please don't let the Groton Airport cut down trees at Bluff Point. It could be devastating to the plant and animal ecosystems there.

Thank you, Jyl Warn

From:

Pam McGee

Sent:

Tuesday, January 24, 2017 5:17 PM

To:

robert.klee@ct.gov; Colin Goegel <cgoegel@ctairports.org>; tom.tyler@ct.gov

Subject:

Bluff Point tree cutting plan

To Robert, Thomas, and Colin,

I am writing with concern for Bluff Point, a protected coastal preserve since 1975 when designated as such by the state legislature. It is a unique coastal forest inhabited by rare and endangered shorebirds, migratory songbirds and hawks. I would hope that a firm and complete impact statement is completed before any tree cutting is allowed or begun in this treasured and popular park.

The beauty and recreation it provides cannot be underestimated or restored after indiscriminate cutting.

Sincerely, Pam McGee

Sent:

Tuesday, January 24, 2017 5:19 PM

To:

Robert.klee@ct.gov; Colin Goegel <cgoegel@ctairports.org>; tom.tyler@ct.gov

Subject:

Plans For Clear Cutting Portions of Bluff Point

I am writing as a member of the Groton Open Space Association to request that the current plans for cutting up to 40 acres of Bluff Point be reconsidered.

This park significantly improves the quality of life for many individuals residing in southeastern Connecticut.

Thank you,

Jason Cote

From: Thompson, Laura

Sent: Tuesday, January 24, 2017 7:28 PM

To: <a href="mailto:robert.klee@ct.gov">robert.klee@ct.gov</a>; <a href="mailto:tom.tyler@ct.gov">tom.tyler@ct.gov</a>; Colin Goegel <a href="mailto:cgoegel@ctairports.org">cgoegel@ctairports.org</a>>

**Subject:** In regards to tree removal plan at Bluff Point

To All Parties Concerned,

I am writing in regards to a proposed plan to remove trees from and otherwise alter Bluff Point State Park.

With the changes being implemented by our new President concerning the environment, it is more important than ever for state and local agencies to do what they can to protect unique or undisturbed habitats, as well as the wildlife they support. Conservation is really our responsibility and we should be concerned about what we leave to future generations, even those creatures which may seem small. In addition, coastal habitats such as are included in the Bluff Point park play an important role in the resiliency of coastal systems to disturbances, such as storms which are slated to increase in frequency and intensity as the global climate continues to change. Issues like having clean water for recreational purposes or protection from flooding could all be effected.

While 40 acres may not seem like a lot compared to the whole of the park, potential fragmentation of a habitat weakens that habitat. Please do not set a precedent whereby the park is picked apart one small adjustment at a time.

I have been a resident of the area for about 8 years now, and often retreat to Bluff Point to clear my head, get fresh air and even to pursue my hobby of wildlife photography. I have photographed many animals from snakes, to shore birds, song birds, owls, birds of prey, deer and foxes within this habitat. I know this is an area beloved by many locals who would hate to see it disturbed. In addition, and though I would not have numbers, I have seen this park be a draw for visitors to the are who then bring their business to local restaurants etc., So if the environmental protection is not enough motive, please consider the value of this park to people as a spot of recreation and an addition to tourism.

Please strongly consider any viable alternatives. It is becoming more and more important to choose not to sacrifice the environment as a solution to our problems.

Thank you,

Laura Thompson, PhD Research Fellow Mystic Aquarium From: Frances Hoffman

Sent: Tuesday, January 24, 2017 3:32 PM

To: tom.tyler@ct.gov; robert.klee@ct.gov; Colin Goegel <cgoegel@ctairports.org>

Subject: Concerns about proposed tree cutting at Bluff Point

I am concerned about the proposal to remove trees on Bluff Point and have the following requests: It is important that environmental impact analyses be conducted. The analyses should address short and long term impacts on plants, animals, water quality (fresh and marine) and soil quality/. run-off and erosion.

Based on those analyses, and airport safety studies. The least number of trees possible should be removed.

This is prudent, responsible, and reasonable practice.

Thank you, Frances E. Hoffman

On Jan 25, 2017, at 4:15 PM, Klee, Robert < Robert. Klee@ct.gov > wrote:

Dear Ms. Hoffman,

Thank you for your note concerning proposed tree clearing at Bluff Point for the Groton Airport project.

As Bluff Point includes state lands that are a Natural Area Preserve and that are managed as a State Park and as a State Park Coastal Reserve we strongly concur with you sentiment that these state lands are extremely valuable to all residents as a recreation resource, as wildlife habitat and which contain important ecological values. In fact, these properties are protected by specific state laws and various regulations to preserve them primarily in their natural state for this and future generations to enjoy and also to provide valuable habitat in an otherwise densely developed shoreline. Those laws and regulations will be the lens through which we evaluate the tree removal proposal from the CT Airport Authority.

You should be assured that we will continue manage and protect these important properties in ways that are consistent with their governing laws and regulations. You may be also interested to know that DEEP has recently offered formal comments to CAA on their proposal. A copy of those comments is attached for your information

Thank you again for taking the time to share your concerns. If you have questions or would like to discuss these matters further please contact either State Parks Director Tom Tyler at <a href="mailto:Tom.Tyler@ct.gov">Tom.Tyler@ct.gov</a> or Graham Stevens, Director of Constituent Affairs and Land Management at <a href="mailto:Graham.Stevens@ct.gov">Graham.Stevens@ct.gov</a>.

Thank you,

Robert J. Klee Commissioner Connecticut Department of Energy and Environmental Protection 79 Elm Street, Hartford, CT 06106-5127

P: 860.424.3571@F: 860.424.4051 @E: <u>robert.klee@ct.gov</u>

From: Frances Hoffman

Sent: Wednesday, January 25, 2017 5:43 PMTo: Klee, Robert < Robert

**Cc:** Tyler, Tom < <u>Tom.Tyler@ct.gov</u>>; Colin Goegel < <u>cgoegel@ctairports.org</u>>

**Subject:** Re: Concerns about proposed tree cutting at Bluff Point

Dear Commissioner Klee,

Thank you for your thoughtful response.

I will be sure to review the DEEP comments. And I appreciate the manner in which you are engaging your department in this issue - even-handed, fair, interested.

Sincerely, Frances Hoffman The following individuals independently contacted Robert Klee, Commissioner Connecticut Department of Energy and Environmental Protection expressing similar comments regarding this project. Robert Klee responded to each individual with the response below.

- Frances Hoffman
- Bob Clapp
- Jackson Foley
- Allison Tuttle
- Penny Newbury
- Victor Villagra
- John Schmidt
- Kate Chanin
- Jack McDonald
- Anne-Marie DeGraffenreidt
- Alexander Wood

In addition Colin Goegel, CAA Supervising Engineer; Tom Tyler, State Parks Director; and Graham Stevens, Director of Constituent Affairs and Land Management were copied on each response.

From: Klee, Robert [mailto:Robert.Klee@ct.gov]
Sent: Wednesday, January 25, 2017 4:19 PM

To: 'BOB CLAPP'

**Cc:** Tyler, Tom < <a href="mailto:Tom.Tyler@ct.gov">Tyler@ct.gov</a>>; Colin Goegel <a href="mailto:cgoegel@ctairports.org">cgoegel@ctairports.org</a>>

**Subject:** RE: BLUFF POINT TREE CUTTING (PROPOSED)

Dear Mr. Clapp,

Thank you for your note concerning proposed tree clearing at Bluff Point for the Groton Airport project.

As Bluff Point includes state lands that are a Natural Area Preserve and that are managed as a State Park and as a State Park Coastal Reserve we strongly concur with you sentiment that these state lands are extremely valuable to all residents as a recreation resource, as wildlife habitat and which contain important ecological values. In fact, these properties are protected by specific state laws and various regulations to preserve them primarily in their natural state for this and future generations to enjoy and also to provide valuable habitat in an otherwise densely developed shoreline. Those laws and regulations will be the lens through which we evaluate the tree removal proposal from the CT Airport Authority.

You should be assured that we will continue manage and protect these important properties in ways that are consistent with their governing laws and regulations. You may be also interested to know that DEEP has recently offered formal comments to CAA on their proposal. A copy of those comments is attached for your information

Thank you again for taking the time to share your concerns. If you have questions or would like to discuss these matters further please contact either State Parks Director Tom Tyler at <a href="mailto:Tom.Tyler@ct.gov">Tom.Tyler@ct.gov</a> or Graham Stevens, Director of Constituent Affairs and Land Management at <a href="mailto:Graham.Stevens@ct.gov">Graham.Stevens@ct.gov</a>.

Thank you,

Robert J. Klee

Commissioner

Connecticut Department of Energy and Environmental Protection 79 Elm Street, Hartford, CT 06106-5127
P: 860.424.3571 | F: 860.424.4051 | E: robert.klee@ct.gov



### www.ct.gov/deep

Conserving, improving and protecting our natural resources and environment; Ensuring a clean, affordable, reliable, and sustainable energy supply. From: Alicia Primer

Sent: Thursday, January 26, 2017 4:28 PM

**Subject:** Bluff Point Groton

#### Dear Sirs:

I am writing to express my very great concern about the proposal to cut acres of forest at Bluff Point State Park. As a lifelong resident of South Eastern Connecticut, I know how rare it is to find such a large and varied woodland anywhere in our dense little corner of the world. To have an intact and beautiful forest and meadow and wetland environment **on the shoreline** is so special that we must do all we can to save it.

The State Legislature recognized the rarity of Bluff Point when they created a coastal preserve there in the 70's. I was a high school student in East Lyme at the time and we often came to Bluff Point to hike and enjoy the views. My children do the same now and love to visit the pristine shoreline there. We often encounter school groups enjoying the wide open space. Every year open space is more precious.

To **destroy** Bluff Point State Park, and that is what this proposal will do, is a gross violation of the public trust for the benefit of private plane operators. I urge you to reject this proposal and save Bluff Point State Park for future generations.

Thank you for your consideration.

#### ALICIA PRIMER

From: Julia

Sent: Sunday, January 29, 2017 1:20 PM
To: Colin Goegel < cgoegel@ctairports.org>

Subject: Bluff Point

Mr. Colin Goegel

**Connecticut Airport Authority** 

Dear Mr. Goegel:

Bluff Point is a unique and rare coastal forest, and is a beloved and well-used state park. It's trees would be impossible to replace, and the habitat would be decimated by the proposed cutting for the airport.

We ask that you protect this valuable Connecticut asset that my family, along with so many others, has found to be an inspiring refuge—a true Connecticut jewel.

Please find another way to solve airport issues. Thank you for your service.

Sincerely, Julia Parry

First Name:	Andrew
Last Name:	Lopez

### Question or comment?

I would like to see the public comments submitted regarding this project, both those provided at the hearing in December 2016 and those submitted independently. Will they be made available to the public anytime soon? Many thanks, Andrew

**Sent:** Monday, May 22, 2017 1:57 PM

**To:** Colin Goegel < cgoegel@ctairports.org >

**Subject:** Trees near Connecticut River in Hartford and at Bluff Point State Park in Groton,

Mr. Colin Goegel,

I am taking this opportunity to express my dissent and urge you to withdraw your plans to cut down a huge amount of trees along the Connecticut River in Hartford and at Bluff Point State Park in Groton. These trees provide invaluable resources to the local land and ecology and many of them are protected. Blindly removing them is stupid and dimwitted and unlawful. I'm sure a more thoughtful and meaningful plan can be proposed that achieves your organization's goals while preserving the integrity of our treasured trees.

Thank you, Anna Moschella Stamford, CT

**Sent:** Monday, May 22, 2017 3:56 PM

To: Colin Goegel <cgoegel@ctairports.org>

**Subject:** CT Needs Trees, Not Airports

To: Mr. Colin Goegel, Supervising Engineer

**CT** Airport Authority

334 Ella Grasso Turnpike, Suite 160

Windsor Locks, CT 06096

Mr. Goegel,

I continue, unfortunately, to read about plans for massive tree cutting and habitat destruction at Brainard Airport and Bluff Point Park even after it has been shown to be a) environmentally unsound, b) aesthetically unsound, and c) unnecessary. Why does this persist? In the case of Hartford's Brainard, could it have anything to do with the "development" plans bandied about by Hartford Mayor and the MDC?

In any case, we need the woodlands and habitat - if push comes to shove we don't really need the airports. So either dramatically scale back these plans or, if "safety" concerns require the proposed level of destruction to accommodate air traffic, then close down the airports. We need the trees and habitat, not more planes and flights.

Kevin Gough

# APPENDIX C THREATENED & ENDANGERED SPECIES DOCUMENTATION



# Connecticut Airport Authority - Groton New London Airport

# IPaC Trust Resource Report

Generated September 17, 2015 01:50 PM MDT



US Fish & Wildlife Service

# **IPaC Trust Resource Report**



# **Project Description**

Connecticut Airport Authority - Groton **New London Airport** 

PROJECT CODE

AQCWF-JRVPZ-D75OG-S4MBT-EG5Q2I

LOCATION

New London County, 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 <u>Endangered Species Program</u> 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 <u>Section 7</u> 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.

## **Birds**

## Piping Plover Charadrius melodus

**Threatened** 

CRITICAL HABITAT

No critical habitat has been designated for this species.

https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B079

#### Red Knot Calidris canutus rufa

**Threatened** 

CRITICAL HABITAT

No critical habitat has been designated for this species.

https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0DM

#### Roseate Tern Sterna dougallii dougallii

**Endangered** 

CRITICAL HABITAT

No critical habitat has been designated for this species.

https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B07O

# **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 <u>Migratory Bird Treaty Act</u> 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 Haematopus palliatus

Bird of conservation concern

Season: Breeding

https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0G8

American Bittern Botaurus lentiginosus

Bird of conservation concern

Season: Breeding

https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0F3

Bald Eagle Haliaeetus leucocephalus

Bird of conservation concern

Year-round

https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B008

Black-billed Cuckoo Coccyzus erythropthalmus

Bird of conservation concern

Season: Breeding

https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0HI

Blue-winged Warbler Vermivora pinus

Bird of conservation concern

Bird of conservation concern

Season: Breeding

Canada Warbler Wilsonia canadensis

Season: Breeding

Fox Sparrow Passerella iliaca Bird of conservation concern

Season: Wintering

Gull-billed Tern Gelochelidon nilotica

Bird of conservation concern

Season: Breeding

Horned Grebe Podiceps auritus

Bird of conservation concern

Season: Wintering

Hudsonian Godwit Limosa haemastica

Bird of conservation concern

Season: Migrating

Least Bittern Ixobrychus exilis

Bird of conservation concern

Season: Breeding

Least Tern Sterna antillarum

Bird of conservation concern

Season: Breeding

Pied-billed Grebe Podilymbus podiceps

Bird of conservation concern

Year-round

Prairie Warbler Dendroica discolor Bird of conservation concern

Season: Breeding

Purple Sandpiper Calidris maritima

Bird of conservation concern

Season: Wintering

Rusty Blackbird Euphagus carolinus

Bird of conservation concern

Season: Wintering

Saltmarsh Sparrow Ammodramus caudacutus

Bird of conservation concern

Season: Breeding

Seaside Sparrow Ammodramus maritimus

Bird of conservation concern

Year-round

Short-eared Owl Asio flammeus Bird of conservation concern

Season: Wintering

https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0HD

Snowy Egret Egretta thula

Bird of conservation concern

Season: Breeding

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 <u>National Wildlife Refuge</u> 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.

There are no refuges within this project area

## Wetlands

Impacts to <u>NWI wetlands</u> 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>U.S. Army Corps of Engineers District</u>.

### **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 tuberficid 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: Groton-New London**

Scientific Name		Common Name	State Status
Animal Assemblage			
Owl Roost		<null></null>	<null></null>
Coastal/Marine Community - Other	er Classification		
Brackish intertidal	marsh	<null></null>	<null></null>
Invertebrate Animal			
Abagrotis nefascia	benjamini	Coastal heathland cutworm	Т
Apamea lintneri		Apamea moth	SC
Drasteria graphica	atlantica	False heather underwing	Т
Faronta rubripenni	S	Pink streak	Т
Lepipolys perscript	a	Noctuid moth	SC
Papaipema duovat	a	Seaside goldenrod stem bore	r SC
Schinia spinosae		Noctuid moth	SC
Terrestrial Community - Other Cla	ssification		
Coastal grassland		<null></null>	<null></null>
Coastal woodland/	shrubland	<null></null>	<null></null>
Vascular Plant			
Acalypha virginica		Virginia copperleaf	SC
Angelica lucida		Sea-coast angelica	Е
Aristida longespica		Needlegrass	SC
Atriplex glabriuscul	la	Orache	SC
Bidens eatonii		Eaton's beggars-tick	Т
Bolboschoenus ma paludosus	ritimus ssp.	Bayonet grass	SC
Cirsium horridulum	1	Yellow thistle	Е
Deschampsia caesp	oitosa	Tufted hairgrass	SC
Eurybia spectabilis		Showy aster	Т

	Scientific Name	Common Name	State Status
	Helianthemum dumosum	Bush rockrose	SC*
	Hudsonia tomentosa	False beach-heather	Т
	Hydrocotyle verticillata	Whorled pennywort	E
	Ligusticum scothicum	Scotch lovage	E
	Lilaeopsis chinensis	Lilaeopsis	SC
	Ludwigia sphaerocarpa	Globe-fruited false-loosestrife	E
	Oxalis violacea	Violet wood-sorrel	SC
	Pityopsis falcata	Sickle-leaved golden aster	Е
	Rhynchospora macrostachya	Beaked rush	Т
	Spergularia canadensis	Canada sand-spurry	Т
Vertebrate A	Animal		
	Ammodramus caudacutus	Saltmarsh sharp-tailed sparrov	w SC
	Ammodramus maritimus	Seaside sparrow	Т
	Ammodramus savannarum	Grasshopper sparrow	E
	Asio flammeus	Short-eared owl	Т
	Dolichonyx oryzivorus	Bobolink	SC
	Eremophila alpestris	Horned lark	E
	Haematopus palliatus	American oystercatcher	Т
	Haliaeetus leucocephalus	Bald eagle	Т
	Icteria virens	Yellow-breasted chat	E
	Passerculus sandwichensis	Savannah sparrow	SC
	Sylvilagus transitionalis	New England Cottontail	<null></null>



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.

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

You are eligible to use this form if you have answered yes to question #1 <u>or</u> yes to question #2 <u>and</u> 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 Applicant<sup>3</sup>

Mr. Richard Doucette, Environmental Program Manager, Airports Division

USDOT Federal Aviation Administration – New England Region

(781) 238-7613

richard.doucette@faa.gov

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

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

<sup>&</sup>lt;sup>3</sup> If applicable - only needed for federal actions with applicants (e.g., for a permit, etc.) who are party to the consultation.

Project Name: Groton-New London Airport Tree Obstruction Removal

**Project Location**: *Groton*, *CT* 41° 19′ 48″ N 072° 02′42″ W

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

The proposed action includes removal of trees on and surrounding the Groton-New London 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 Groton-New London Airport includes approximately 60 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?		$\boxtimes$
Does the project occur within 150 feet of a known maternity roost tree?		$\boxtimes$
Does the project include forest conversion <sup>4</sup> ? (if yes, report acreage below)	$\boxtimes$	
Estimated total acres of forest conversion	60 a	cres
If known, estimated acres <sup>5</sup> of forest conversion from April 1 to October 31	0 ac	cres
If known, estimated acres of forest conversion from June 1 to July 31 <sup>6</sup>	0 ac	cres
Does the project include timber harvest? (if yes, report acreage below)		$\boxtimes$
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)		$\boxtimes$
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)		$\boxtimes$
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.

<sup>&</sup>lt;sup>4</sup> 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).

<sup>&</sup>lt;sup>5</sup> If the project removes less than 10 trees and the acreage is unknown, report the acreage as less than 0.1 acre.

<sup>&</sup>lt;sup>6</sup> 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.

Cianatura	Date Submitted:
Signature:	Date Subilitied.

# APPENDIX D PUBLIC HEARING SUMMARY



## Groton-New London Airport Environmental Impact Assessment for Tree Clearing Notice of Public Hearing

NOTICE IS HEREBY GIVEN that the Connecticut Airport Authority (CAA) will be holding a Public Hearing for the Groton-New London Airport Federal Environmental Assessment (EA) and State Environmental Impact Assessment (EIE) for Tree Clearing. 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 Thursday December 8<sup>th</sup> in the City of Groton Council Chambers (295 Meridian Street, Groton, CT 06340), doors open at 6:30PM with the hearing beginning at 7:00PM. If needed the snow date will be held December 15<sup>th</sup> at the same location and time. The Environmental Assessment for Tree Clearing will be available at <a href="http://grotonairport.caa-analysis.com/">http://grotonairport.caa-analysis.com/</a>.



47 Eugene O'Neill Drive New London, CT 06320 860-442-2200 www.theday.com

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**Salesperson:** Billie Jean Durgin | **Printed on:** 11/11/2016 **Telephone:** 860-701-4276 ext 4276 | **Fax:** (860) 442-5443

Email: b.durgin@theday.com

CHA Consulting Inc 3 Winners Circle Albany, NY 12205 518-453-8775

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Groton-New London Airport Environmental Impact Assessment for Tree Clearing Notice of Public Hearing

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## **Payment Information**

**Total Order Price: \$405.20** 

## **PUBLISHER'S CERTIFICATE**

State of Connecticut
County of New London, ss. New London

Personally appeared before the undersigned, a Notary Public within and for said County and State, Billie Jean Durgin, Legal Advertising Clerk, of The Day Publishing Company Classifieds dept, a newspaper published at New London, County of New London, state of Connecticut who being duly sworn, states on oath, that the Order of Notice in the case of

22172 Groton-New London Airport Environmental Impact Asses

A true copy of which is hereunto annexed, was published in said newspaper in its issue(s) of

11/18/2016, 11/25/2016, 12/02/2016

Cust: CHA Consulting Inc

Ad #: d00691449

Subscribed and sworn to before me

This Wednesday, June 14, 2017

**Notary Public** 

My commission expires

22172

Groton-New London Airport Environmental Impact
Assessment for Tree Clearing
Notice of Public Hearing

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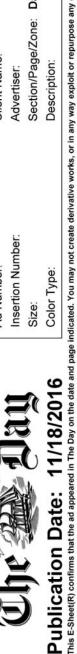
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The preferred candidate will have a college degree and/or 3-5 years media sales management experience. A proven ability and demonstrated experience leading and motivating a sales team to achieve desired objectives. Is skilled at presenting, negotiating and closing sales with advertisers & ad agencies and has a track record of exceeding forecasted revenues and growing market share. You need to have the ability to manage multiple projects on deadline and poses excellent verbal & written communication skills. A valid driver's license and daily access to an automobile is a must.

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	Name	Affiliation	Phone Number	Email (print clearly)	Elected Official? (Y/N)	Do you wish to speak?	
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PROJECT: Environmental Assessment & Environmental Impact Evaluation for Obstruction Removal at Groton New-London Airport LOCATION: Groton City Council Chambers, 295 Meridian Street, Groton CT 06340
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PROJECT: Environmental Assessment & Environmental Impact Evaluation for Obstruction Removal at Groton New-London Airport LOCATION: Groton City Council Chambers, 295 Meridian Street, Groton CT 06340
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PROJECT: Environmental Assessment & Environmental Impact Evaluation for Obstruction Removal at Groton New-London Airport LOCATION: Groton City Council Chambers, 295 Meridian Street, Groton CT 06340 DATE: 12/8/2016

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DATE: 12/8/2016

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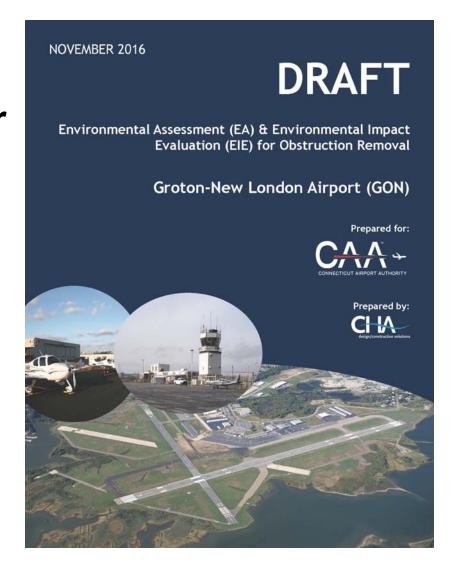
# Groton-New London Airport (GON)

**Environmental Assessment for Tree Obstruction Removal** 



# Draft Environmental Assessment Report for Groton-New London Airport

Released
November 2016







- The Environmental Assessment (EA) documents the potential impacts of tree obstruction removal at Groton-New London 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

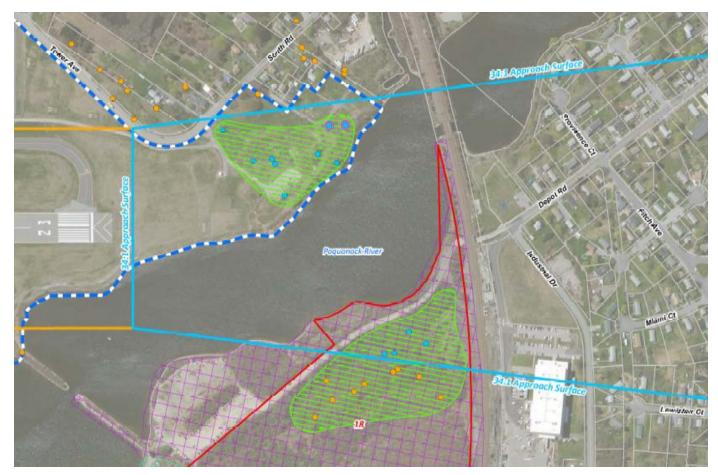








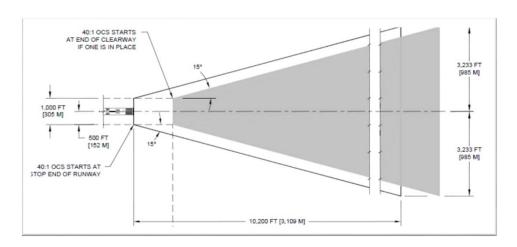
EA includes both on and off-airport obstruction removal

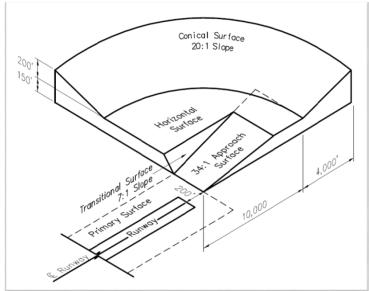






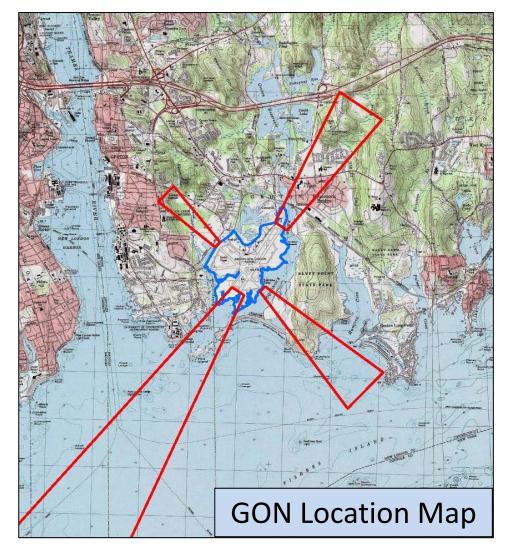
- Objects that penetrate the defined airspace are classified as obstructions, and should be removed to safely accommodate aircraft operations
- The EA addresses tree removal associated with:
  - Federal (i.e., FAR Part 77) Navigable Airspace
  - FAA Design Standards



























## 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 <u>required</u> to address the <u>safety</u> deficiencies to the extent feasible.







# Alternatives Analysis and Proposed Action

- No Action Alternative
- Full Obstruction Removal Alternative
- Modified Obstruction Removal 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 beyond both 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> <li>No wetland impacts (temporary or permanent)</li> <li>No impacts to biological resources, habitats, or species of concern</li> <li>No impacts to parks or recreation</li> <li>No impacts or disturbance to property owners</li> <li>No project costs</li> </ul>	<ul> <li>Retains potential hazards to airport users</li> <li>Retains a potential hazard to people and property on the ground surrounding the airport</li> <li>Does not comply with FAA design standards or grant assurances</li> <li>Risks future FAA funding for improvements to the airport</li> </ul>





## 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 off-airport property. This alternative provides maximum benefit to airport users and safety enhancement. Outer surfaces are protected with lighting during nighttime operations.

Advantages	Disadvantages
<ul> <li>Clears or lights virtually all defined aeronautical surfaces</li> <li>Satisfies federal design standards and assurances</li> <li>Comprehensive removal of potential hazards to airport users</li> <li>Improves safety for people and property on the ground surrounding the airport</li> </ul>	<ul> <li>Potential for impacts to wetlands (temporary or permanent)</li> <li>Potential impacts to biological resources</li> <li>Substantial coordination and negotiation needed with property owners</li> <li>The need for numerous avigation easements may prevent successful completion of project and significantly extend the required schedule</li> <li>High project costs</li> <li>Successful completion is questionable</li> </ul>





## Full Obstruction Removal Alternative







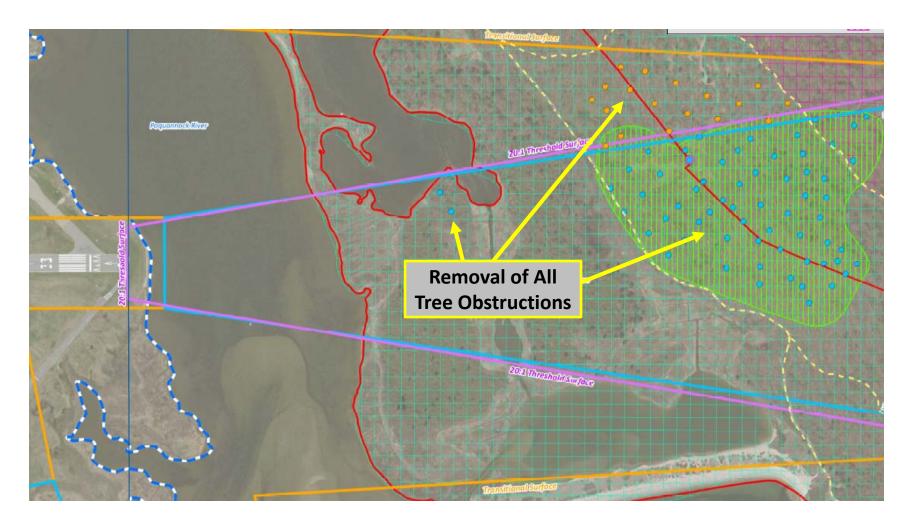
## **Full Obstruction Removal Alternative**







### **Full Obstruction Removal Alternative**







### **Full Obstruction Removal Alternative**

#### **Off-Airport Obstruction Beacons**







#### 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
•	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	habita prese Easen owne Less of Outer	ntial impacts to wetland, biological, at, or species of concern remainent are required with property
	reduces costs		











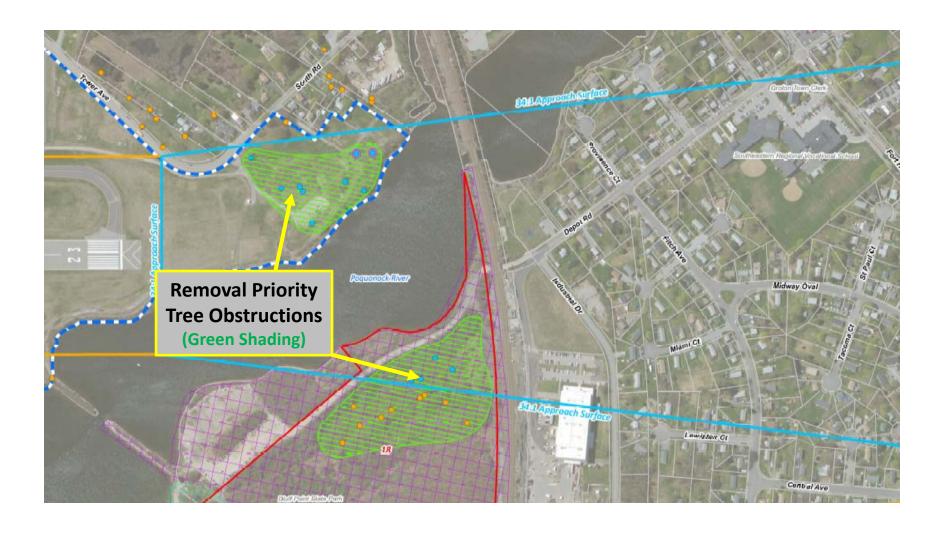






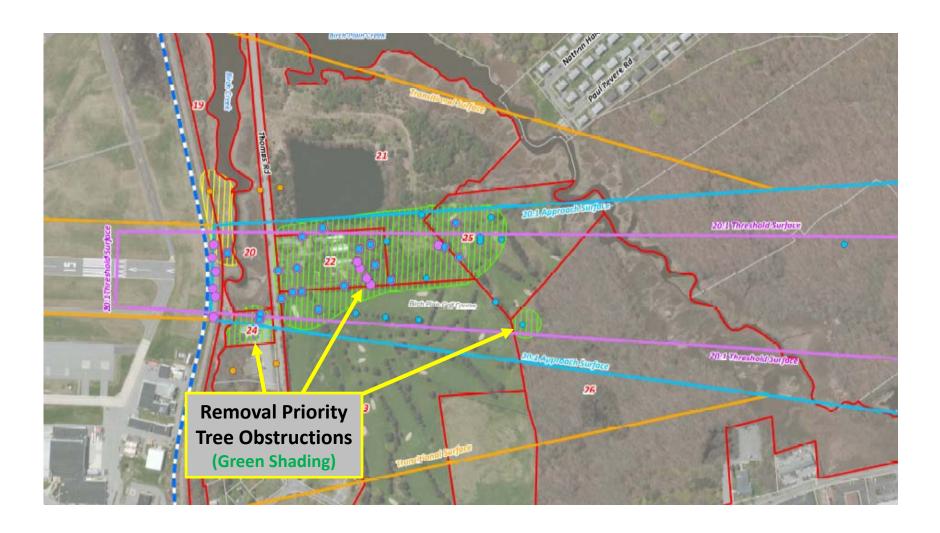
















# Recommended Alternative Modified Obstruction Removal Alternative

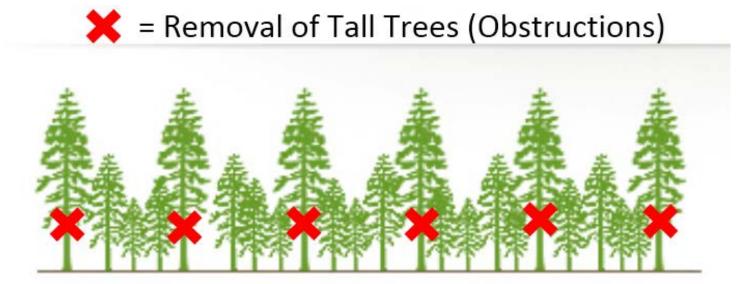
- The CAA and FAA have identified this alternative as the most practical solution.
- Balances airport safety with environmental considerations, minimizing cost, and park and private property disturbance.
- Technique of tree removal is described as 'selective thinning'





## Selective Thinning

- Selective Thinning includes removal of tall trees, with retention of small trees & brush
- Stumps and roots are retained
- Cut logs & branches can be removed or left in place





# Selective Thinning Example









# 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 Issued Identified:
  - Bluff Point State Park Section 4(F) Impacts
  - Unique Coastal Habitats
  - Threatened & Endangered Species
  - Wetlands





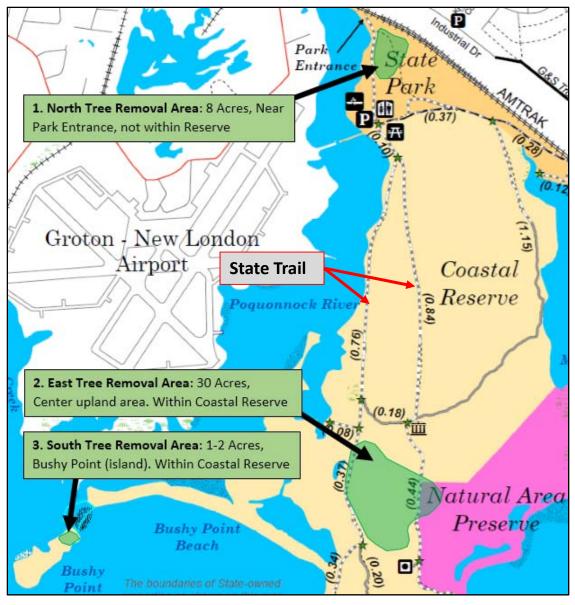


# Bluff Point State Park

#### State Park Lands:

- Park Property
- Coastal Reserve
- Natural Area Preserve

Selective Tree Thinning on approx. 5% of the Park property



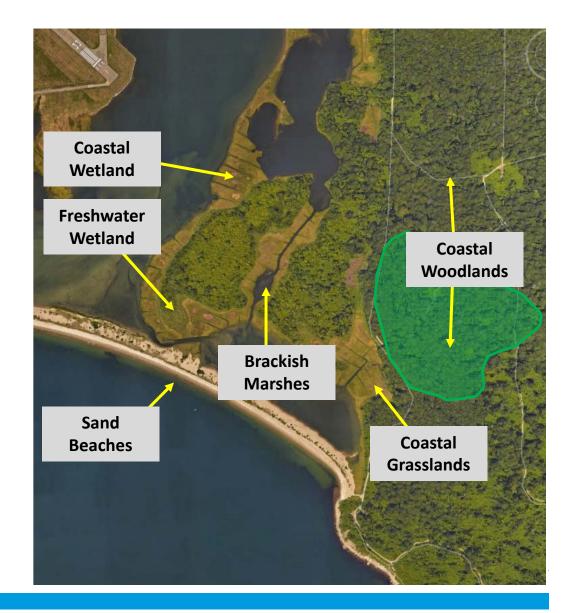




#### **Bluff Point State Park**

#### **Rare Habitats**

- Freshwater wetlands
- Coastal wetlands
- Salt marshes
- Coastal sand beaches
- Coastal grasslands
- Brackish intertidal marshes
- Coastal woodlands





### Threatened and Endangered Species

- Threatened Species
  - Northern Long –eared Bat
- Species of Conservation Concern
  - Wood Thrush
  - Worm-eating Warbler
  - Canada Warbler
  - Rusty Blackbird
  - Biological Survey may be required
  - Seasonal Restrictions on Cutting



**Wood Thrush** 



Northern Long-eared Bat

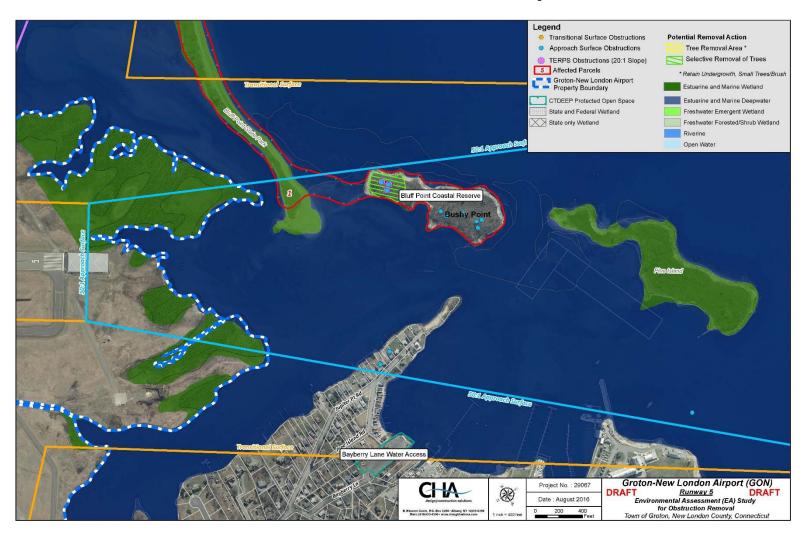


Worm-eating Warbler





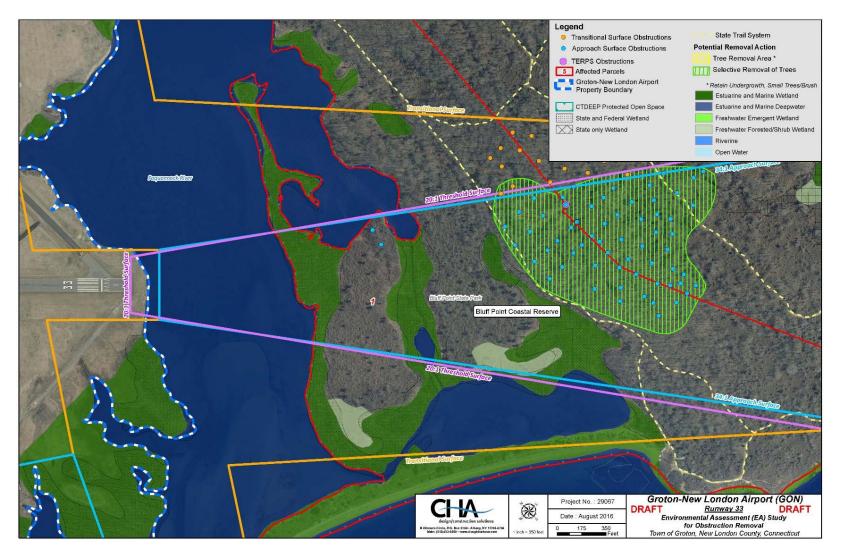
## Wetlands- Runway 5







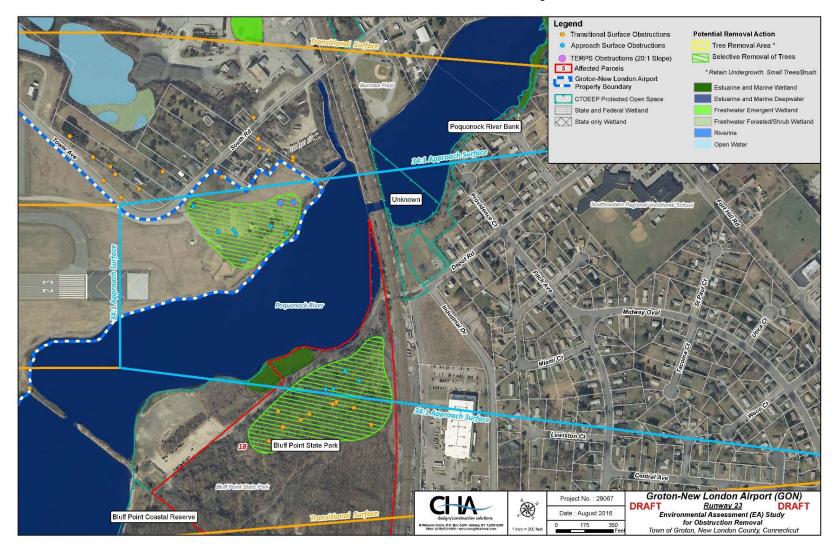
## Wetlands- Runway 33







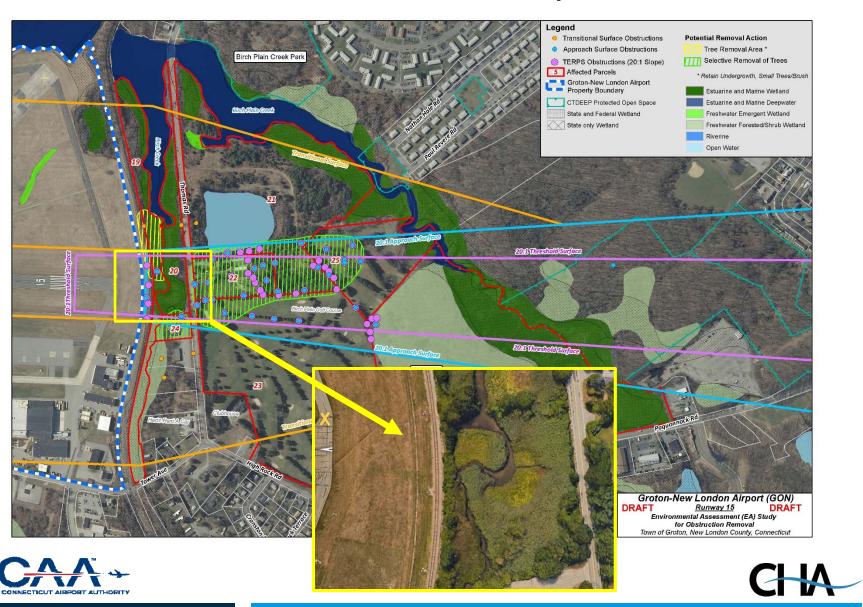
# Wetlands- Runway 23







# Wetlands – Runway 15



# Project Outcome & Next Steps

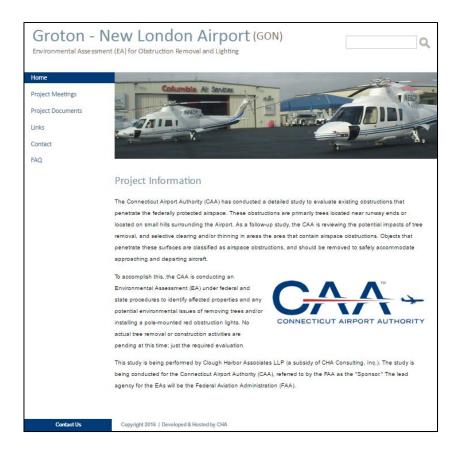
- Collect & Review Comments (by January 24<sup>th</sup>)
- Prepare & Release Final EA
- Federal Environmental Assessment, under NEPA
  - Lead Agency: Federal Aviation Administration (FAA)
  - Action: Publish a Finding of No Significant Impact (FONSI)
- State Environmental Impact Assessment, under CEPA
  - Lead Agency: Connecticut Office of Policy and Management
  - Action: Publish a Record of Decision (ROD)
- Next Steps:
  - Permit Applications for tree removals
  - Acquisition of easements as needed from property owners
  - Tree removals





## **Study Information**

Please visit the project website at:



http://grotonairport.caa-analysis.com/





#### Project EIE Notice posted on CEQ Environmental Monitor Online Portal – November 8, 2016

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



#### **ENVIRONMENTAL MONITOR**

The official site for project information under the Connecticut Environmental Policy Act

November 3, 2016

#### **EIE Notices**

The following Environmental Impact Evaluation (EIE) notice is submitted for review and comment in this edition.

#### Notice of EIE for the Connecticut Airport Authority (CAA) – Off-Airport Tree Obstruction Removal at the Groton-New London Airport

**Municipality where project is proposed**: The Airport is located in the Town of Groton and located along the Poquonnock River. It is less than three miles driving distance to downtown (city of Groton).

**Address of Possible Project Location**: The airport office is located at 155 Tower Avenue, off of U.S. Route 1.

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 on,





# **Questions and Comments?**

Please provide comments by January 24th to:

Colin Goegel

Connecticut Airports Authority

334 Ella Grasso Turnpike, Suite 160

Windsor Locks, CT 06096

CGoegel@ctairports.org

http://grotonairport.caa-analysis.com/





MS. LOEWENSTEIN: Good evening, everyone.

You will have to bear with us. We don't have

benefit of a PA system. So if at any time you

cannot hear, please let us know.

UNIDENTIFIED AUDIENCE SPEAKER: There is no PA system?

MS. LOEWENSTEIN: The PA system is not available to us.

UNIDENTIFIED AUDIENCE SPEAKER: Well, that's a shame.

MS. LOEWENSTEIN: Yes, I agree. But we will do the best we can.

Welcome to the Public Hearing for the Groton-New London Airport Environmental Assessment, Environmental Impact Evaluation for obstruction removal. My name is Jean Loewenstein with CHA Consulting, and I will be acting as the moderator for tonight's public hearing.

At this meeting we have a number of representatives from the Connecticut Airport Authority, a representative from the Federal Aviation Administration, and also the study consultant, CHA.

With us is Colin Goegel, the Senior Manager

of Engineering with the Connecticut Airport

Authority, Molly Parsons, Airport Planner with the

Connecticut Airport Authority, Barry Pallanck,

Director of General Aviation with the Connecticut

Airport Authority, and Sally Snyder, who is

Environmental Analyst, also with the Connecticut

Airport Authority, Richard Doucette, Environmental

Protection Specialist with the Federal Aviation

Administration, and also Paul McDonnell from CHA

Consulting, and myself, Jean Loewenstein, again,

from CHA.

UNIDENTIFIED AUDIENCE SPEAKER: Excuse me, what's CHA mean?

MS. LOEWENSTEIN: That's the name of our company, CHA Consulting. We're an engineering and planning multi-disciplinary firm.

UNIDENTIFIED AUDIENCE SPEAKER: Okay.

MS. LOEWENSTEIN: Tonight's hearing purpose, the subject is the environmental study, which is the initial step in the review of potential environmental impacts of the proposed tree obstruction removal to the airspace surrounding the Groton-New London Airport.

All public airports have federally-defined airspace that extends outward and upward beyond each

runway end. These surfaces need to be protected from penetrations, including trees, to provide for the safety of airport operations.

This draft study report presents alternatives to remove trees that create existing airspace obstructions, and thus, could impact the safety and capability of the airport.

Tonight's public hearing has several purposes. One is to present the summary of the proposed obstruction and removal project and environmental study, and two, provide the opportunity for elected officials and the public to provide comments and questions for the study record.

Please note that although technical comments won't be addressed tonight at the hearing, all comments and questions will be included and addressed in the final environmental document. Note that all presentations and comments at this hearing are being recorded by a stenographer and will be included in the transcript and final study report.

This evening's agenda will be as follows:

There will be an airport overview statement provided

by the Connecticut Airport Authority or the CAA, an

environmental process statement that is provided by

the Federal Aviation Administration, or FAA, and the

technical presentation of the proposed actions and findings, which is the PowerPoint presented by CHA, and then the opportunity for public comment.

We request that you hold all your comments and questions until the technical presentation is complete. And at the conclusion of this presentation, you will have the opportunity to provide comment on this project.

If you wish to speak, please sign up at the form that's on the table by the door. If you have not signed up to speak, we will have a five-minute break at the end of the technical presentation and you can take that opportunity to sign up.

And now I would like to turn the meeting over to Colin of the CAA to provide the overview of the airport.

That's probably a good idea.

MR. GOEGEL: Good evening, and thank you all for coming out tonight.

Groton-New London Airport is a public use general aviation airport located in the town of Groton, Connecticut. The airport has two paved runways; Runway 5-23 and Runway 15-33, 5,000 and 4,000 feet long.

UNIDENTIFIED AUDIENCE SPEAKER: Can't hear

you.

MR. GOEGEL: I'm sorry. The airport has two paved runways; Runway 5-23 and 15-33, 5,000 and 4,000 feet in length respectively. The airport has approximately 50 based aircraft, accommodates over 25,000 annual itinerant takeoffs and landings, plus 14,000 annual local and training operations.

Groton-New London Airport is one of 11

public airports located throughout the state and the only airport serving southeastern Connecticut. The Connecticut Airport Authority is responsible for operating and safely maintaining the airport for public use as one component of the overall state transportation system.

It was first established as -- it was established as the first State of Connecticut airport in 1929. The airport has had many functions over the past 87 years, most notably as a training airfield for the United States Army Air Corps during World War II and a commercial service airport providing scheduled domestic service to Boston,

New York, Philadelphia and Washington, D.C. until 2004.

Lastly, the airport is home to 12 businesses that provide full and part-time employment to over

600 people. The Groton-New London Airport is certainly an economic asset to Groton, New London County and the state of Connecticut.

MS. LOEWENSTEIN: Thank you, Colin. Richard.

MR. DOUCETTE: Hello. My name is

Richard Doucette. I'm with the Federal Aviation

Administration in New England region. Our regional office is in Burlington, Massachusetts. The meeting today is being held to help fulfill our requirements under the National Environmental Policy Act and a similar statute in Connecticut, the Connecticut Environmental Policy Act.

When most people think about the FAA, they think about the air traffic controllers, because about 80 percent of the FAA work force is air traffic controllers. The part of the FAA that I work for is the airports division. And what we do is we issue grants to airports throughout the country every year to help them build infrastructure or do planning projects or environmental projects such as this.

So the Federal Aviation Administration is funding the majority of this study, and if there's tree clearing that comes out at the end of it, we'll

fund the majority of that as well.

One thing that we need to do before we do issue grants to do construction projects or tree clearing, that sort of thing, is to make sure that we comply with the Federal Environmental Statutes.

So that's one of the reasons, the most important reason, I think, why we're having this meeting is we're following NEPA, the National Environmental Policy Act. And the document that is available for your review and comment is an environmental assessment under NEPA. And we put documents like that out for public comment when we're proposing projects such as this, or when we're working with airports who are proposing projects such as this.

In the end, there is no tree cutting proposed at this airport immediately. If anything were to happen at this airport that the FAA would approve, it's several months, if not longer, away.

Probably the earliest there would be tree clearing would be at least a year from now, because after this environmental process, we would still need to go forward and get permits, wetland permits and the like.

If there would be work done on private

property, then easements would have to be obtained from private property owners through a land acquisition process. And if there needs to be tree cutting on state property, which is probably part of the reason a number of you are here, then there would need to be some negotiations between the state agencies to make that happen.

So there's still a lot of work ahead of us, but we're here at least to describe the basics of the project, what the environmental impacts may be, and what the process is going forward before anything is actually conducted.

We're actually doing six of these projects just like this one at six airports in Connecticut.

We've done projects just like this at every state in New England. We've done over a dozen in

Massachusetts, Vermont, New Hampshire, Maine. All the New England region has projects just like this to try to help airports keep the trees down that are growing up into the airspace around the airports.

Thank you.

MS. LOEWENSTEIN: Thank you, Richard.

And now Paul McDonnell will make the technical presentation. And again, if you could hold all your questions until he's finished and we

initiate the public comment portion of the meeting. Thank you.

MR. McDONNELL: Thanks, Jean.

The presentation I'm going to provide is part of a handout. If you haven't taken a handout of these slides, we do have some additional copies at the front door that you can take with you. We're also going to post these slides on the study website after this hearing.

So of course, we're here for the Groton-New London Environmental Assessment for the tree obstruction removal. This is an illustration of the report that's available online. It was advertised publicly. It was also in the Connecticut Environmental Monitor. And on the handouts, the location online for where you can get a copy of the report is available.

Some background slides. I have a bunch of background I am going to go over, because we're talking about airspace before we talk about the tree clearing, so it usually requires a little preface.

The background of the environmental document Richard talked about, again, it does include tree clearing both on the airport and off the airport.

It satisfies the State and Federal Environmental

Regulations. And I've listed some of the regulations there that you can go into the details of if you want to see more about the process that we go through.

The slides that we show are based right out of the report. You can see this is just one of the maps that we have in the report in Appendix A. They all look about the same when we go through them.

One thing of importance I show right off is that the dashed blue line that you see, that's the airport property boundary. Of course, the runways and the airfield facilities are all on airport property, which is owned by the state. And when you pass that blue line, you're off the airport. You are either on state land or private land or other government entities. So this project is both on and off airport.

Airspace, it can be complex. I'm not going to go into major details about it, but we talk about several surfaces when we do tree obstruction analysis. The most encompassing is called -- is based on Federal Aviation Regulations Part 77. So you hear that term "Part 77" a lot any time you're talking about airspace.

Part 77 includes surfaces that go beyond the

ends of the runway, as well as surrounding the entire airport. They are the most stringent surfaces. The ones that if you were to clear all penetrations to Part 77, you would have a perfect aeronautical situation for the airport. If you cannot -- if it's infeasible, if it's impractical, you still have to solve some of the safety issues.

And the FAA also sets design standards.

Design standards are simpler. There's minimum requirements beyond the end of each runway that must be cleared in order to maintain public safety. So we talk a little bit about both of those two.

This is an illustration of the airport.

This is an old-fashioned quadrangle map. You can see the airport here. It has two runways. So the two runways both have a runway end, so you can take off and land in either direction on both runways.

So there's four approaches to the airport.

From the south, which is runway five, that's the major approach. It has a full instrument landing system. And that's why that surface that we protect is so much bigger on the south. We're in Groton in this area here. The airport is here.

Zooming in a little bit to the airport itself, now Groton -- the City of Groton is a little

bit off this illustration, and you can see the two runways more closely.

This big open area to the east of the airport is the Bluff Point State Park, which we'll talk about considerably in this presentation.

I want to show -- I'm going to show a brief video to perhaps better illustrate the three-dimensional effects of the airspace. These are all maps. So you're seeing them from above, but the airspace is not just going out from the runways, it's also going upward into space from the ends of the runways.

Okay. This is coming into the airport, taking a break and then stopping a little closely.

It's going to swing around to the southern approach, to the primary approach of the airport.

So now we're looking to the south out. And this is the Runway 5 end, this end. This is the primary airport approach. So you may be able to see that these surfaces are going up slightly. They are pretty shallow, but they are coming up off the ground.

And what we're showing here in three dimension is where trees are penetrating through that light blue surface. When a tree penetrates

that surface, that's when we call it an obstruction.

That's FAA terminology. So you can see the ground is not penetrating there, but just the tops of those trees.

This is just another angle from the side view. You can see where the trees are coming through that surface. The surface I'm showing in this video is that larger, more stringent surface, Part 77. So this is a pretty flat 50-to-1 slope. That's a very gentle slope from the end of that runway.

Okay. Moving to one of the other four runway ends, this is Runway 33 end. I'm stopping there because this end has the most penetrations to the surface. If you can see, there are these trees here coming through the light blue line are the penetrations. Again, this is the Part 77 surface. And all of this property is Bluff Point State Park.

Moving on. I'm just going to do one more on the other end of the runway. This is the north end of the airport now. And this is still Bluff Point State Park here. And this is the entranceway, to get you situated. The railroad line is there. And you can see there are penetrations on the north end as well.

So that is just really intended to get the flavor of what airspace is about and how it's all over. And what we're highlighting here are just the most critical ones that are important to the protect.

Okay. As part of an environmental study, you always have a purpose and need statement. For this project, it's a very simple statement. It's just simply improve airport safety by removing existing tree penetrations or tree obstructions.

The need is based on the established airspace and established design criteria. All of those criteria, they are established at the federal level. They are not specific to Connecticut or to New England or to Groton. They are federally required. They were originally identified in 2012 in a statewide obstruction study.

And, you know, a part of the need we also highlight is the airport is required to address safety. So they have to address this issue to the best of their ability and work with the locals and the regulatory agencies to come up with a plan to address the obstructions.

Many environmental studies have multiple alternatives and multiple scenarios. We really kept

it pretty simple. We have a no action alternative.

I already highlighted that. The State of

Connecticut doesn't have the option to do nothing.

They have to address some of the safety concerns.

On the other end of the spectrum is what we call the full obstruction removal alternative. And that is in the study. We clearly identified an obstruction removal alternative, and it's the most significant one, because if there's a penetration, if it penetrates any of the surfaces under that Part 77, that alternative would try to remove that penetration. So it's pretty encompassing.

We have one more alternative, and not surprisingly, this is the compromised alternative, trying to reach a balance between safety and airport operational capability and protecting the environment.

So it's not a secret that when you see the full build, we're not recommending the full build.

It would be the ideal situation from an aeronautical standpoint, but not the ideal situation from a community or recreation or environmental standpoint.

I'm not going to read these tables. They're in the handout. They are also in the report. They

go into a checklist of what are the pros and cons of each alternative. The no action alternative, of course, doesn't have a benefit for the airport, but it has no environmental impact and no costs. So that's the no action alternative.

The full obstruction removal alternative, one thing I do want to just read is it removes penetrations to all the surfaces. For the outer surfaces that I'm not even going into detail on, the outer surfaces we have protected with obstruction lighting under the full build alternative only. So areas even beyond the town of Groton would have some effect on the full build alternative. Again, not being recommended at the site.

And for one example, this is an illustration of the full build. It's right up there on top of the slide. You remove all alternatives -- I mean, you remove all obstructions under the full build alternative. And the obstructions in our maps throughout the documents are shown by dots, blue dots and orange dots, based on the surface that it's penetrating.

So here is the south end of the runway again. This is part of Bluff Point State Park. And removing of all the obstructions, you see these dots

all throughout this island of the park, Bushy Point, even some minor penetrations on Jupiter Point. If you were to clear every tree penetration or every pole or every light tower, you would be in multiple different locations. Not recommended in the study. It's identified, but not recommended.

This is that 3D image again. You can see the penetrations. Much of the Bushy Point part of the park, and some in here, coming through that very shallow surface.

Without the mic, I'm going to have to stop a couple times and take some sips.

This was the other runway. This is Runway 33 end, also going over the park. And you might not be able to see them from your seats. There is blue dots here. Orange dots here. There are some other dots there. So under the full build, you would be looking to remove trees wherever you see areas of dots.

This is the airport again. Some potential hazard beacons. Red lights that might be put up under the full build alternative. Again, that would be an ideal scenario for the airport, but it's not in the current plan and not going to be advanced.

What is going to be advanced, the modified

build alternative. The goal here is to strike that balance between airport safety and facilities and protection of the environment. So there's pros and cons of each.

Going back to the Runway 5 example over

Bushy Point Park of Bluff Point State Park. Again,
here's the end of the runway, the south end of the
airport. The only thing that's being recommended
under the alternative is what's shaded with the
green hatching. And you may be able to see it on
your slide. You can certainly see it clearly online
if you look at the report.

And that green hatching is this area here.

That was where the biggest penetrations are on the Bushy Point Island area. So that's what this alternative is recommending, is doing some thinning and removing of the tall trees in that area.

Nothing else that you see on this illustration beyond this small area. It's about one to two acres.

Again, here under Runway 5, this is the modified alternative. You can just see a small penetration. We're zooming in here to show that area of penetration. What we're illustrating here now is actually the design standard surface and not

the very steep 50 to 1, but a 34 to 1. A steeper surface is what we're recommending to clear. So it's much less of an area.

However, beyond the end of 33, we still have an area, a larger area of trees on Bluff Point that we're recommending for selective thinning. And the penetrations go in many areas, but what you're seeing again shaded in green is an area of up to 30 acres where we're recommending selective thinning of that location of the park.

And that area rises in terrain. It's not flat. It's not along the direct coastline with tidal influences. It has some relief. So when the ground goes up and the trees are on top of the ground, there's a larger area of penetrations on that part of the park. So we've put this in the recommendation for the larger area. It's the largest area we're looking for and recommending some selective thinning.

Also showing -- this is the north end of the airport. These are smaller areas, but this is a park entrance. Here's on the airport property. So we're also recommending some smaller areas of selective thinning in that location.

Lastly, the fourth end of the runway, Runway

15, this is the northwest end of the airport. It's not part of the park. It's mostly private property. It's the one area that does have some clearing down low in elevation, because there are some trees that are growing up right beyond the end of the runway.

The airport runway is here and the property line is right next to the runway. So that's one area where they are down low.

The official recommendation, I've said it several times already, is that modified alternative. To areas when you see the green hatching is what's being recommended for future consideration for the clearing areas.

When we talk about well, what are we doing in terms of clearing, we've gotten some comments in the past on this already. And when we're going off airport property, what we call the process is selective thinning.

Now, oftentimes a forester will talk about thinning as a means of reducing fire hazard. In this case, we're not talking about fire hazard, but we're talking about thinning out the forest for the height and the potential aeronautical hazard.

So if you look at this -- this little clip art figure of a wooded area, if that wooded area has

different heights of trees, the trees that we would be looking on cutting would just be the tall ones that are growing up into the surface.

So the X's are the trees that you would remove, and all the low growth, the shrubs, the stumps, the small trees, all those would stay in place. That's what we're recommending in any of the locations you see for clearing is the selective thinning process that we're talking about.

So what does that look like? We've done this before in other locations throughout

New England. This is a different runway, not in Groton. And you can see this was a tree clearing area, an area of penetrations that needed to be mitigated.

And this is back in 2013. It's fully grown here. This is just a zooming in of this yellow box. I'm zooming in to that area of the photo. You can see it's pretty much a full-grown forest in that location.

In 2014, we did the selective thinning of that area of the property, and this is the after.

This is 2015. So selective thinning, it really has different effects based on the type of forest you have.

If you have a forest with lots of different variety in the heights of trees, you won't see that much of a difference from the air full grown and then thinned out. If you have a forest that's all tall trees with very little undergrowth, then you do pretty much in that area remove most of the trees there. You can see that occurred in some locations of this selective thinning.

So it's an attempt to reduce the overall impact on the forest, and the way we usually try to do it when we're going off airports.

The rest of the document goes in to all the environmental categories, the FAA decides groups, environmental considerations into categories. And then the report goes through them one by one. Not all of them are at issue for Groton-New London Airport.

These are the four keys. If you have a project that's looking at changing runways or building new aviation facilities, you often go into noise or air quality issues. But this project does nothing to change the number of operations or the aircraft types. So we're really focusing on vegetation impacts and natural environment.

So we're talking about the park, some

habitat, threatened endangered species, and certainly some wetland concerns. So that's what the report focuses on mainly. I'm going to briefly go through each of these categories and just to highlight what's in the chapters of the documents.

Starting with Bluff Point State Park, this map you see is the DEEP's map for Bluff Point State Park. The airport's on the left. All of this area you see and areas that are even off the slide are all part of the park property.

The park is divided into some different locations. A regular park property, but anything you see in this tan-type color is a coastal reserve area. That's been designated by the state as a coastal reserve.

There's even a smaller area, a natural area preserve, that's also in the state regulations for protection. So that's why impacts to the park are very much of a concern to CAA. And CAA has already started the process to work with the Connecticut Department of Energy and Environmental Protection.

Overall, the park is about 800 acres. And this project has a significant number of acreage. You know, up to five percent of the park could be affected by this project. Up to 5 percent of the

800 acres. I tried to highlight them here in green.

Runway 23, this is the location. Beyond the end of Runway 33, this is that largest area I was pointing out. And then on Bushy Point, this small area off onto the Bushy Point Island. So those are the areas of potential concern. You can also see some of the trails that are on Bluff Point State Park go through one of those large areas of selective thinning.

The park was designated as a reserve because of several unique habitats that are located on the park. You can see I've listed them all here. The job of this project is a little simpler since the removals are all on uplands. They are all in the -- what's called the coastal woodlands by the park.

We don't have any tree removals down in the marsh areas or on the beach or in some of these other nice natural habitats. They are in the coastal woodlands. So our emphasis is all focused on that.

Threatened endangered species is also a key issue. The park, and all of Connecticut, has lots of listed federal and state endangered species. We have the benefit for this project that the removal areas that are proposed are all on the woodlands.

They are not in the marshes with the seabird areas. So the numbers of the species are much less that we're dealing with, but they are certainly still there and of concern.

The northern long-eared bat is a statewide and federally listed endangered species now. So we're always concerned about the long-eared bat. We've already done the screening on that, and it looks like the bat is not of a significant concern for this area. There's no hibernation areas and no known roosting areas. So we're doing the screening for the bat right now.

However, in the woodlands, these are some of the woodland bird species that are of most concern.

And these are the species that we'll be working with if the project moves forward with Connecticut DEEP to see about mitigation and options on how impacts can be reduced.

Based on past projects, two things that are typically done is sometimes biological surveys are done for the certain species in the actual specific location. And almost always when there are species of concern, mitigation can be accomplished to some degree by doing winter removals, not allowing any clearing or any activities in the summer or transit

seasons or the breeding seasons. And pretty much restricts you to December through March for the tree removal as a way to reduce potential impacts on breeding birds using those woodland habitats.

Wetlands is also of a concern. In this area of Connecticut you have a lot of coastal wetland areas. However, based on this type of project where most of the trees are on rising terrain locations, we have very little impact on coastal areas and coastal wetlands. Most of it is we have some concerns for freshwater wetlands.

And the next slides are just the state and the federal wetland mapped locations. And potential thinning on Bushy Point is actually an upland area. But we did do an initial review of that site. And that site, even though there's no mapped wetlands on there, that would have to be further reviewed with DEEP with the wetland delineation in that area just to see what type of permits might be required.

Similar on the other locations as well.

Again, this is Runway 33. This is that larger area of the state park. There are no mapped wetlands in that removal area. However, our biologists thought they would want to delineate to see if there are some potential freshwater wetlands that are not

mapped that could qualify in that area. So that's one particular thing we would continue on with.

It's A similar situation on the other areas of upland where there are no mapped wetlands, but we still would need to do a delineation to confirm that.

On the 15 end of the airport, now again, we're on the non-Bluff Point part of the island, is the one location where the runway and the trees come right down next to each other. This is right off the end of the runway. This is a blowup. That is a coastal wetland there.

However, it is very thinly wooded, but you can see, if you've got really good eyes, some of the trees in the wetland are starting to get pretty tall. So in this area we would be recommending just hand-cutting a couple of the tall trees in that location.

So everything I just presented here is all on the report. It's all just an overview for the initial stage of this environmental review.

Where do we go from here? Again, as others have said, this is the first step. The environmental assessment is the first step. After the environmental assessment, it's only then that

you go through approvals and permitting where you're actually looking at plans for the actual removal and coming up with the details.

We're going to collect and review all comments. We're going to be collecting comments tonight and then through January 24th. So there's still six weeks in our designated comment period.

After that we'll be collecting and responding to comments. And the goal is to release a final environmental document. On that final document, we'll make a determination whether these potential impacts are significant or can most likely be mitigated through permitting and other means. So that's the big decision that comes out of this study.

FAA takes the lead under NEPA. The state takes the lead under Connecticut process through the Office of Policy and Management.

One second, please.

And if that process is completed, then the next steps can be the permitting and the detailed approvals.

Study information, I said that it is available, again, in your handout. If you go to this website, you will find a full copy of the draft

report. This is the website with some other basic information.

It's also published on the Connecticut Environmental Monitor, where there is also a link from the Connecticut Environmental Monitor that's going to go back to the published site where the report is located.

It's also in the local public libraries if you want to look at a hard copy as well. And we have copies here as well. If you want to look through the document here, we have copies there.

Again, for questions and comments, we're still open until January 24th, but we're going to -- and after our five-minute break, we're going to take up the comments here tonight.

We've provided a comment form. You can leave a comment form here if you would like. You can use the address on the back to send it in.

Whatever works best.

I think that is the end of the presentation. So we're going to take a five-minute break for the stenographer, and then Jean is going to call people that are interested in making a formal comment one-by-one to talk loud and slow for our recording system here.

MS. LOEWENSTEIN: If anyone hasn't signed up to speak and you would like to, the sign-up sheet is by the door.

MR. McDONNELL: Okay. So five minutes from now. We'll be back at 7:50 to start taking the public comments.

## (Recess taken)

MS. LOEWENSTEIN: Before we begin to take comments, I just wanted to lay out some of the ground rules so we can have everyone be heard and so the stenographer can get all of your comments accurately.

When your name is called, if you could please stand up and restate your name for the record and spell your last name so we make sure we're accurate.

I'm going to try, if I can find people on here, to pull elected officials or representatives of organizations first, but I may not be able to.

But we will get to all of you.

If you could please limit your comments to three minutes, and limit your comments specifically to this project. If you are representing a specific organization, please state that for the record.

Once everyone has had a chance to speak, if

someone wishes to speak again, you will have that chance. Every comment will become part of the record. Not only the comments you make here tonight, but any comments you choose to e-mail or mail in or leave here. You can leave your comments on the table, if you would like.

They will be reviewed by the CAA and the FAA and will be considered and included in the preparation of the final study.

Procedural questions could be answered tonight if someone is trying to just -- they misunderstood something in the PowerPoint presentation. But other comments, environmental responses particularly, we will take those comments and consider them, but we won't be coming up with solutions or answering those questions this evening.

And again, the written comments can be -any comment can be submitted by January 24th via the
website, at this meeting, or directly to the CAA.
And in the handouts there is not only an e-mail
address, as well as the address for the study
website.

Yes?

UNIDENTIFIED AUDIENCE SPEAKER: Will you have each speaker go up front, maybe up over to the

1 side, because of the hearing process? 2 MS. LOEWENSTEIN: If they can, but I'm not 3 sure if everyone is going to be able to make it out of their seat. That's my concern. That would be 4 5 optimal. UNIDENTIFIED AUDIENCE SPEAKER: It's going 6 7 to make it take too long. 8 MS. LOEWENSTEIN: But if people try to stand 9 up and --10 UNIDENTIFIED AUDIENCE SPEAKER: Please make them come up front. 11 12 UNIDENTIFIED AUDIENCE SPEAKER: Come up 13 front. 14 UNIDENTIFIED AUDIENCE SPEAKER: You can't 15 hear. 16 MS. LOEWENSTEIN: Okay. We can do that. 17 UNIDENTIFIED AUDIENCE SPEAKER: Thank you. 18 MS. LOEWENSTEIN: And if anyone cannot, just 19 let us know that and stand up. All right. 20 Paul, there are so many, I'm just going to 21 go right down the list. I'll have to apologize if 22 your name is not pronounced correctly. It's not 23 intentional. Okay. Louise Fabrykiewicz. 24

MS. FABRYKIEWICZ: You did a good job.

25

That's great. Most people can't get by the second syllable.

I'm Louise Fabrykiewicz. I live in

New London. I'm a member of -- I'm not an official representative, but I'm a member of the Sierra Club and Save the Sound.

For starters, I am here tonight to express
my deep concern about the proposed plan to destroy
40 acres of trees at Bluff Point Coastal Reserve, as
well as 15 acres of trees on neighboring properties.

Like the Lorax of Dr. Suess fame, I speak for the trees, for the trees have no tongue. And for some of us, there is much more that is troubling about the consequences of tree removal in regard to the potential erosion and sedimentation of the surrounding coastal habitats, and loss of protection for the high number of endangered and threatened species that are found within the park.

Thanks to the State of Connecticut for having the foresight in 1975 to acquire the last significant, last significant, portion of undeveloped shoreline in Connecticut. And I quote from some official paper.

"For the purpose of preserving its native ecological associations, unique faunal and floral

characteristics, geological features, and scenic qualities in a condition of undisturbed integrity."

Just remember, folks, keep in mind that once it's gone, it's gone.

MS. LOEWENSTEIN: Thank you. Okay. Mildred Ebbin?

MS. EBBIN: Ebbin. You got it.

MS. LOEWENSTEIN: Could you spell it, please, ma'am?

MS. EBBIN: Oh, sure. E-b-b-i-n.

Sorry about the shades, but I just had an operation.

Anyway, this excellent speaker spoke to the same point that I wish to make. I am speaking for the environment. I'm speaking for the people who live in this area. I'm speaking for the airport, too. That is so important. It's an economic burst for Groton, which is troubled now.

But the magnitude of an 800-acre piece of property that is so important from New York to Boston. What saved this area in the hurricane of 1938, you can look at the records. That big chunk of land was there for us. And once you cut down a tree in this particular area, they will not grow again. They will just be dead wood.

If you can go and see the edge of all this beautiful land, we are being eroded. We may even have to shorten runways because of this. That piece of land, Bluff Point, is what is saving it all. You can't go to the top and cut the tops of trees off. The trees underneath will die in the drought that we are having.

I lived all my life in coastal areas, in

New York, and most of it in Groton, Connecticut. I

have seen by my house the tide is rising. It's not

getting better. We must do things like other

countries. We must work to save the environment.

We need to have better people do this research.

Scientists of note, hundreds of them, are speaking about the environment. Let's have one of those people help with this test.

And let me tell you another thing. I will end on a bad note. An official of the United States government went on my property without my permission. I was not there. Walked all over it. Sent me a letter and said I may have -- we may have to take down your tree. It's the tallest tree on Jupiter Point.

Well, he was no scientist. Next door to me is the tallest tree. I have the second tallest

tree. And I feel bad for the neighbor, but we can't believe that these people are honest if they go on my property without permission and write me a letter of such -- it's incorrect. It's not the tallest tree. You just have to look.

Anyway, I'm speaking for the environment.

Terrible drought conditions. We could X -- red X those trees. Yes, we could do that. But the trees are not going to grow back. We should be planting bushes and other plants.

The Connecticut DEEP cuts trees. And the people who cut them do not understand what is a tree that can be taken down. We need scientists. We need scientists to make these studies. We need scientists. Thank you.

MS. LOEWENSTEIN: Thank you. Ma'am, are you from the Jupiter Point Association?

MS. EBBIN: Okay. Sure.

Michael Caro- --

MR. CARONIA: Caronia.

MS. LOEWENSTEIN: Yes. Thank you. Could you spell your last name, please?

MR. CARONIA: C-a-r-o-n-i-a.

Sir, could you put that first graph on, this one here?

I live on -- I lived on South Road for about -- from the '60s. And my parents had a house. It was right here, like almost the closest house to the runway. And I'm not sure if it was through eminent domain or land acquisition, they took our property and they put it on the airport on the other side. And Joe Fugere (ph) the manager, lived in it.

And it was -- the reason was because the house was in the way of the ILS. That was landing system lights.

But these beech trees, they towered over the house then, and they are still there now. So I'm just curious -- I'm more than curious why they had to stay, but my family had to leave. We had to leave our house and move. And I guess, basically, you made a nice presentation, but I don't trust you.

Thank you. Thank you.

MS. LOEWENSTEIN: Pat Griffith?

MS. GRIFFITH: I'm Pat Griffith. Thank you very much. I can just -- you know what, I don't want to have my back to these people, so I'm going to stand here. Is that okay?

MS. LOEWENSTEIN: Can you spell your last

name?

MS. GRIFFITH: G-r-i-f-f-i-t-h. You can set a timer for three minutes. I didn't have a chance to practice.

First of all, I'd like to say that I really appreciate this beautiful, expensive brochure. It's very well done. And Paul McDonnell gave an amazing presentation. He didn't even look at his notes.

And I couldn't do that. I've had to make notes, and it's only going to be three minutes.

The airport, I recognize, is very necessary, very important. My father was an aeronautical engineer. My brother is a pilot. So I'm not against airports.

Last fall I went to Bluff Point. I am a hiker. That's all I am. I hike at Bluff Point.

I've been going there for 25 to 30 years. Last fall I went and joined a volunteer clean-up day to clean up Bluff Point.

There was a space, me and another girl, a teenage girl was with me, we found some debris behind some thorns. I wanted to cut down the thorns, just this much thorns, one branch. And I was told that it was against the law for me to cut a single branch.

Now I read in the paper a few days ago you guys are going to cut down 40 acres of trees. So I don't understand. I basically do not understand.

I do have a question. How many planes have crashed in the last 20 years because of trees? One.

UNIDENTIFIED SPEAKER: That's only one documented.

MS. GRIFFITH: If you have an answer, put it in the record because of what the FAA has labeled the term "obstruction," which let's change the whole terminology. They are not obstructions. They are jewels. They are gems. Bluff Point is the Hope Diamond. You want to cut up the Hope Diamond, you won't have something very valuable again.

One plane crashed. I recognize we have to conform to legal regulations, but let's also look at the other point of view here. It's one of the last places of nature refuge in New England maybe.

When I go there very frequently, I go into the parking lot. You're going to see license plates. New York. They come from New York. They come from Massachusetts. They come even from further north in New England. They come from way far north in Connecticut. I met a guy from Japan

the other day. He had driven an hour and a half just to come and hike at Bluff Point.

These people that come from far away, they are spending money when they come here. So don't tell me how economically important that airport is. It's important, but the tourists that come all summer long, they're spending money also. They're going to restaurants. They're buying things and so on. They're buying gas, too.

Speaking of gas, I walk along my trail on -I call it my trail. I'm attached to the trees. I'm
attached to Bluff Point. The airplane goes over.
How long does it take for the smell of gasoline to
leave? It takes a long time. We all need the air.
We need the oxygen.

I am asking you -- I'm taking the radical position, don't cut a single tree. Don't cut anything. Don't do anything. Don't cut the Hope Diamond into little pieces, because then you won't have anything valuable at all.

Do not fragment our jewel. The ecosystem is absolutely irreplaceable. It's already been mentioned by the first two speakers, those trees are preventing erosion. When you erode your property, you are going to undermine the airport.

The trees are habitats for the numerous species. It's a beautiful presentation here, pictures of the bats and so on. And I'm saying don't cut any of them. Destroying plants is suicidal behavior from an economic point of view, as well as from a health standpoint.

We need the oxygen, we absolutely require it, that the plants are producing for us. By cutting down our trees, you will irreparably damage the value of our trails, even if you cut what you say, only five percent.

MS. LOEWENSTEIN: Excuse me, ma'am. Can you wrap up?

MS. GRIFFITH: Yeah, that's what I'm doing. Was that three minutes?

MS. LOEWENSTEIN: Just a little bit over, but that's okay.

D. Schwartz.

MR. SCHWARTZ: S-c-h-w-a-r-t-z. Dudley Schwartz.

MS. LOEWENSTEIN: Thank you.

MR. SCHWARTZ: I think I speak for most people in there. I think that this whole thing is unneeded. We don't understand why if Bluff Point -- if the ridgeline at Bluff Point was 100 feet high,

the slope for the approach to the air strips would be that much higher, and then you would cut trees up there, or if it was 100 feet lower. It makes no sense.

It also makes no sense to thin the large trees and leave the small trees, because you will be back in there within 15 years or so. It would make a lot more sense to clear-cut and maintain it as grassland.

I'm not opposed to cutting trees whatsoever, but I think as a tax matter, this makes no sense.

There's been a failure to adhere to the National

Historic Preservation Act. This doesn't even come

close to a Section 106 review.

The federal tribes were not noticed. The draft EIS seems to think that archeology is confined to the subsurface realm. There is a small modest amount of native ceremonialism out there, which must be addressed. The Advisory Council for Historic Preservation can assist you.

I have a question. I assume that this will be machine cut. And if so, will the logs be skidded out or left in place? That has to be addressed in the National Historic Preservation Act as well.

There's no mention whatsoever in the draft

of the Winthrop Foundation, which is over 300 years old, one of the oldest known foundations certainly in the state, if not New England.

There is -- there should be -- in order to do it properly, there should be a pre and post inspection with tribal consultation and bond posted by -- I assume this will be done by contract loggers.

I'll just finish up. The state cuts thousands of acres and burns thousands of acres every year in the state forest for wildlife and forest management purposes. I have no problem with that. But I think this is just nonsense and it's a complete waste of taxpayer dollars and especially the way it's being done.

Thank you.

MS. LOEWENSTEIN: Thank you.

Eugenia Villagra.

MS. VILLAGRA: V-i-l-l-a-q-r-a.

MS. LOEWENSTEIN: And could you tell us what GOSA stands for? I apologize.

MS. VILLAGRA: Groton Open Space
Association.

MS. LOEWENSTEIN: Okay. Would you mind coming forward. Thank you. Thank you, Eugenia.

MS. VILLAGRA: I just have a couple of quick questions. My first question has to do with the numbers that I saw in your study having to do with 35,000 landings. I want to get a clear number as to how many landings there are, because the study quoted 35,000. And then I calculated that. That added up to about 106 per day. And --

UNIDENTIFIED AUDIENCE SPEAKER: That's a joke.

MS. VILLAGRA: Which just about anybody who lives around here, nobody can believe that there are that many. Wouldn't you agree?

UNIDENTIFIED AUDIENCE SPEAKER: Yes, I would agree.

MS. VILLAGRA: Then the other question that I had is how often is the runway in the Bluff Point vector actually used? And I don't know how to get that information.

I was just talking with a neighbor who is a pilot who was telling me they don't keep track of information like that. But it seems to me that that would be a really good statistic to have, because it's one of the smaller runways.

And I'd like to know, and I think everybody here would like to know, how much that runway is

actually is used as a percentage of the total number of flights. And I don't think we're really sure how many flights there are either.

The other question I have is I'm concerned about how vague the Environmental Impact Evaluation and environmental statement -- assessment statements are about the impacts. It seems like it's all very vague. There's nothing really clear. It's a "maybe," and "if," "but." You know, a lot of maybe's about what the impacts are going to be. And I -- and I would like to know more about that.

The gentleman who just talked about whether logs are going to be skidded out and left in place is really important, I think, to a lot of us here.

And the other question I had is what is the -- are all of these trees at their maximum height? The impression of a lot of people I've talked with about this is that they are at their maximum height, and they have been at their maximum height for a long time. The gentleman who talked about taking out the height.

My impression after hiking around there for years is it that they are all -- there isn't a lot of variety and understory. It's like they are all, more or less, at the same height, and then there's

1 not a whole lot of understory.

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So the diagram that you showed us of the smaller and the medium and the larger trees just doesn't sync with my impression of what the trees look like at Bluff Point.

Thank you very much.

MS. LOEWENSTEIN: Thank you. I'm having difficulty with Anders --

MS. ADELMAN: Andrea.

MS. LOEWENSTEIN: I'm sorry, Andrea. Did
11 you wish to speak?

MS. ADELMAN: Yeah. I'll say a couple comments.

MS. LOEWENSTEIN: Okay. Could you also spell your last name for us?

MS. ADELMAN: Yeah, It's Adelman,
A-d-e-l-m-a-n.

MS. LOEWENSTEIN: Thank you.

MS. ADELMAN: I'll just make a few comments, which is -- I guess, one with regard to Bushy Point Island.

I think -- you say it's only one or two acres, but I think the importance of Bushy Point Island cannot be over-emphasized, because that island provides a tremendous amount of protection

for the beach from the erosion and the sedimentation for Bakers Cove, and also for the surrounding points, whether it be the beach or Jupiter Point or even the airport itself.

Any amount of tree removal will, I think, drastically change the environment for those aspects of that, whether it's the ecosystem or, you know, animals.

But I can tell you even as recently as

Memorial weekend there was a storm out to sea. A

number of boats came in and sheltered there. So

there's, you know, also recreational use, as well as

just tremendous value from the tree coverage and the

height that's given there and the protection given

there.

Secondly, I -- just speaking, I think, partly on behalf of Jupiter Point Association, this is the second meeting we've been to this year with regard to the airport. The previous meeting was about the fence. And I think there's a tremendous number of us that don't understand what's going on when we've been there for 30, 40, 50, 60 years, and this airport hasn't been used for more than ten years as a commercial airport.

I myself used to fly in and out of it. Why

all of a sudden there's this level of activity.

It's been many years since we've had the lights that were put in, which promptly were flown into right after the safety lights were put in place.

But I think, you know, we'd like to understand and I don't know -- you know, I'm not talking about NEPA or SEPA or this FAR Part 77, but there's something going on at the airport. And I think it would be good either in this report or the fence report or all the reports to address what the legal basis is for what's changed at the airport to suddenly have this level of increased activity.

Something's going on. And it's not a commercial airport anymore in the classic sense. There's not scheduled flights for average people. So what's happening that's causing all of this activity, and, you know, whether this activity that's happening has any rational relationship to the way the airport's actually being utilized.

Thanks.

MS. LOEWENSTEIN: Thank you.

Zell Steever.

MS. LOEWENSTEIN: Could you spell your last name for us, please?

MR. STEEVER: S-t-e-e-v-e-r.

I suspect I should be addressing you as well as the audience at the same time, so I'd like to thank you all for coming down to join us here in Groton to listen to the comments that we have.

I'm Zell Steever. I live at 81 Main Street in Groton. And I'm here to talk to you about the obstruction removal at the Groton-New London Airport.

First, as you may know, the Bluff Point

Coastal Reserve located to the east and south of the airport was established by the Connecticut

Legislature in Special Act 76-27. In part, the

Special Act states, quote, "Said state reserve shall be maintained and administered by the Department of Environmental Protection and no improvements shall be undertaken which do not contribute to the preservation of the natural, scenic, historic or ecological values of the reserve."

And then following on it goes, "The 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 the Department of Environmental Protection."

So right from the outset, the state of

Connecticut set Bluff Point aside as a reserve not to be disturbed.

Bluff Point is the last remaining large contiguous coastal ecosystem in Connecticut where the eastern deciduous forest, the coastal shrublands, the eroding bluffs, the barrier beach, the salt marsh wetlands, and the intertidal estuarine complex meets the marine environment of Long Island Sound.

There are simply no other places like Bluff
Point reserve in Connecticut. This reserve is a
unique and very special ecosystem. While
historically Bluff Point has experienced a number of
man-made disturbances -- farming, hunting, forestry
and summer houses along the barrier beach -- it has
also experienced natural fires, gypsy moth
infestations, storm-driven salt spray, hurricanes
and yet it has returned over time to its natural
ecological condition.

Cutting down large mature trees and leaving wood chips has in the past, and will in the future, adversely impact the evolving natural development of the Bluff Point ecosystem, and is not consistent with the purposes of the Bluff Point Reserve.

I've spent time at Bluff Point over the last

45 years, first as a hiker and visitor, secondly as a graduate student in botany at Connecticut College. It was considered to be one of the finest reserves -- one of the finest forest areas in the entire region in Connecticut, and that's why we were taken there.

Then myself, as a biology instructor at the community college, then as a recreational user and, of course, as a past user of the airline services that were in operation for many years.

I have flown into that airport in clearly below minimums. I have had the experience of coming over that bluff and getting bounced into that airport. So I know some of the dangers and the problems associated with that hill coming over Bluff Point.

The Bluff Point Reserve is one of the most important ecological systems remaining along Connecticut's coast today. It is my strong belief that the Groton Airport should not be permitted to remove any vegetation, including trees, in the Bluff Point Reserve for the following reasons:

The reserve should be left undisturbed, as it serves as the single remaining coastal ecosystem forest in Connecticut. It is a field laboratory for

students and researchers in how mature coastal ecosystems operate and naturally change over time. It serves as a reference ecosystem in climate change that's taking place in Connecticut, especially sea-level rise and the rising temperature patterns throughout our state. It functions to mitigate the impact of climate change; that is, the trees remove carbon dioxide from the atmosphere, which is the basic cause of our global warming currently.

It has a scenic value as viewed from the west and from the east sides, and particularly from the Fishers Island Sound. And finally, it is a much loved, passive recreation area in this region of Connecticut.

In my view, the Reserve should never be allowed to have mature trees or other vegetation removed from the 40 acres of this Reserve.

Secondly, frankly, this EA and EIE treats the environmental resources around the airport as a list of species in various categories, and not as a connected ecosystem in the context of this region or the state of Connecticut. So it is impossible for the decision-makers, based on this EA/EIA to make -- EIE, I'm sorry -- to make an informed decision by meeting FAA's safety standards while protecting the

quality of the human environment and the natural environmental in this case.

If this is the situation, then it is appropriate for the lead agency to undertake a full Environmental Impact Statement Analysis before a final decision is made on the proposed project.

Third, while I support keeping Groton as a safely managed airport pursuant to FAA rules, I question whether the airport has given sufficient consideration to other alternatives. The proposed cutting on Bluff Point is for the purposes of maintaining the smaller cross -- cross-runway 15-33, the 4,000 foot long runway.

General Aviation numbers have been continuing to decline from 80,319 in 1999 to 42,945 in 2015, and then currently to 38,871 operations in 2016.

While it seems that records are not kept by Groton in which runways are used, it appears that it may be impossible to determine if the short 15-33 runway is really needed as stated in the EA. It seems that a further displacement of the threshold on Runway 15-33 were considered to be a feasible, as an alternative, then the airport would be eligible to continue operations in compliance with FAA design

1 standards and regulations regarding clear airspace.

I strongly recommend the airport give further consideration to the alternative for further displacement of thresholds, because I note the thresholds are already cut back from the 4,000 on the Runway 15-33 currently, and they are shortened in both ends.

MS. LOEWENSTEIN: Excuse me, sir. I don't want to pressure you, but --

MR. STEEVER: I will -- yes.

MS. LOEWENSTEIN: We can have a chat.

MR. STEEVER: Thank you. I would like to continue, please.

MS. LOEWENSTEIN: Yes.

MR. STEEVER: This option is listed as a considered -- this option is listed as considered and dismissed because it would, quote, "Diminish the existing capability of this" -- "at the airport."

But would it really? And by how much?

Since Runway 15-33 already -- are rarely used at -- Runway 15-33 may rarely be used at the airport, and we don't know that, this option to increase the threshold at 15-33 would appear to be a very feasible option.

I urge the airport to consider this option

and share with the public the details of the pros and cons of expanding or reducing the threshold services.

It looks as though the Connecticut Airport Authority is attempting to expand the present operations to push back the existing landing thresholds to 4,000 feet, even when records are unavailable to support this action and as overall airport operations are continuing to decline.

I'd like to thank you for taking the opportunity to come to Groton, and I appreciate the opportunity to talk to you tonight.

MS. LOEWENSTEIN: Thank you.

David Kozak.

MR. KOZAK: Yes, I'm David Kozak with the Connecticut Department of Energy and Environmental Protection. I didn't come to provide comments.

We're going to do that at a later date. We're going to be meeting in about a week or so, other members of the agency, to review the EIE and provide some comments.

But there were a couple of things that were presented here. I noticed immediately a couple of inconsistencies with your presentation with what is being proposed in the EIE, or perhaps in more detail

in the EIE that you didn't go over here. So I have a couple of questions I'm hoping you might be able to answer tonight, because they are procedural questions.

MR. McDONNELL: Okay.

MS. LOEWENSTEIN: Can you slow down for the stenographer?

MR. KOZAK: Sure. Why was the Runway 5 determined to use a threshold surface load of 34 to 1 while the other runway ends are using a 22 to 1? So that's the first question.

The second question is for both Runway 23 and 33, the EIE indicates that there will be a clearing of trees in addition to those that penetrate those threshold surfaces. And I'm wondering what kind of data or procedure you were using to determine trees that were below that threshold which you felt were going to penetrate it in the future.

That's it.

MS. LOEWENSTEIN: Thank you.

Does Sydney VanZant wish to speak? Okay.

Marcia Thompson?

MS. THOMPSON: No.

MS. LOEWENSTEIN: No? Okay.

Carrie Folsom O'Keefe?

MS. O'KEEFE: Yes.

MS. LOEWENSTEIN: Could you spell your last name?

MS. O'KEEFE: Yes. It's F, as in Frank, o-l-s, as in Sam, o-m, as in Maria, dash 0 apostrophe, k-e-e-f, as in Frank, e. It's terrible to spell it.

MS. LOEWENSTEIN: And you're with Audubon Connecticut?

MS. O'KEEFE: I'm with Audubon Connecticut, which is state office of the National Audubon Society.

And similar to Dave from the DEEP, you know, I'll be meeting with my colleagues in the next few weeks to really come up with the comments we want to make on this.

But I did want to say today that Bluff Point is a spot that Audubon Connecticut has identified as critical habitat for birds within the state. And because of that, I have a few particular questions that I'd like to, you know, see addressed at some point, you know, either tonight or when, you know, the various people who are working on this can -- are, you know, kind of during their second

run-through.

First, in order to do the selective cutting of trees, would there be access roads that would be put in? And if so, you know, what would be the width of those access roads? Would there be revegitation of those access roads afterwards? Would there be planting of shrubs and perennials in those areas, and also in the areas where the trees are being removed?

Would there be some management afterwards to make sure that invasive plant species are not becoming established in those areas where management is taking place?

Second, Bushy Point Island, you know, way out at the end of that sort of sand pit. And that particular stretch of sand in the summertime is a really important habitat to piping plover, least terns and American oystercatchers. Piping plover are federally threatened. Least tern and American oystercatcher are both state listed.

And I'm concerned about how the management at the tip of Bushy Point would take place. Would trucks be driving out along the shoreline that's this critical habitat for these birds during the summertime? And would that damage -- you know,

damage it to a point where it's not going to be usable by those birds in future years.

You know, they are not directly out where the management is taking place, but how is that management going to be done? Are there going to be trucks driving on this critical shoreline?

Also, in the -- in the plan, it said in the natural diversity database, which is the database that the Department of Energy and Environmental Protection keeps, it says there has been an owl roost in one of the areas that is being considered for selective cutting.

And I got the idea that it seemed like they were saying it was short-eared owls, which are a species that are here in the wintertime. And if the cutting was to take place in the wintertime, I would want to see that there were some surveys done in advance to make sure that those owls, you know, were not there during the cutting, or that area was being -- they would be avoided during that cutting.

And lastly, what was not mentioned at all in the document is that the -- sort of the -- on the approach to Runway 23, the trees that would be removed there are in what's known as the "hot corner" among the birding community in Connecticut.

During fall migration thousands of birds pass particularly right through that spot.

There are some mornings you can go there and see, you know, 500 white throated sparrows come through that area, you know, 200 song sparrows. A whole variety of 40 or 50 different species. You know, they are just kind of passing through, but that spot is a very important, you know, sort of section along their shoreline migration as they are kind of heading south, southwestward.

I mean, there's no mention of that at all in the environmental assessment. And it's just something that I want to bring to attention, because, you know, it would be really -- I think it would be traumatic if that management took place in the fall when those birds are passing through that area. And it's something that a lot of birders in the area, you know, really enjoy going to that spot and seeing those birds.

So those are my comments for now. Thank you for the opportunity.

MS. LOEWENSTEIN: Thank you.

Rebecca Parfitt.

MS. PARFITT: I think everybody said everything that I would like to say so far.

1 MS. LOEWENSTEIN: Okay. All right. 2 MS. PARFITT: Thank you. 3 MS. LOEWENSTEIN: Andy --4 MR. MINIKOWSKI: Minikowski. 5 MS. LOEWENSTEIN: Could you spell your last 6 name? 7 MR. MINIKOWSKI: For the record, 8 Andrew Minikowski. M, as in Mumford Cove, 9 M-i-n-i-k-o-w-s-k-i. And I represent the 10 Connecticut Fund for the Environment and Save the Sound. 11 12 First of all, thanks for coming out tonight 13 and doing this presentation. Obviously, interest is 14 high. And also thanks to every member of the public 15 that came out tonight. 16 I spend a lot of time reading EA's and That's why I look so 17 EIE's, and EIS's and FONSI's. 18 young. And this thing is rather vague around the 19 edges. It's fuzzy at certain points. And I 20 understand that is a preliminary document. It is a

draft document. You're going to move on and refine from here.

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But as many people have mentioned, this is a manifestly unique resource on a regional scale. is the largest tract of undeveloped coastal woodland in Connecticut, and as such, provides critical ecosystem services and resources to the region, and Long Island Sound in particular.

One thing that does concern us is we realize that federal regulations give a state agency like the Airport Authority very little discretion in certain cases, particularly here where if there's an obstruction, it has to go. And certainly, no one wants to see a pilot or passenger put in harm's way.

However, I really think, and our organization thinks, alongside our membership, that the final EA needs to go into much greater depth about mitigation measures if these trees are to be removed.

First, many of the trees that are in the area slated for removal are 90 to 100 years old.

They are not getting any bigger. So is the whole tree coming down, or are parts of them coming down?

We would suggest that alternatives could be explored there to prevent removing old growth trees.

Also, in areas that are disrupted in forests like this, pioneer species move in. Unfortunately, many of the pioneer species at Bluff Point, if you've walked around, are invasive. Oriental bittersweet, Japanese barberry are completely

endemic throughout the park.

I'm so sorry. Oriental bittersweet and Japanese barberry. So those invasives are endemic throughout the park. We wouldn't want to see them increased by disrupted areas of forest.

One thing we would suggest as an alternative to explore going forward is a one-for-one replanting program. We realize if a tree has to come down under the federal regulations, you may have very little discretion.

Obviously, working with DEEP will help identify those trees to go down. But a replanting program elsewhere in the park where the trees won't grow into the airspace in 15 years and cause this whole meeting to happen all over again would be a way to continue to preserve the unique nature of the park and really balance the interests of the public, the state and the airport authority.

Finally, I wasn't going to mention this, but
I can't resist. Someone mentioned previously how
during the hurricane of 1938, sort of the marsh
buffer in the area around Bluff Point, saved Groton
from severe flooding.

Well, the science is in. We all know it.

The climate change is real. It's not going away.

Those extreme weather events are going to occur more and more frequently, making this an even more critical resource to be safeguarded in the future.

You know, the next big weather event 20 years from now, if we have decreased the ecological vitality of this location, we might not have to worry about an airport because we will be under water.

Thank you.

MS. LOEWENSTEIN: Peter McGuinness.

MR. MCGUINNESS: The last name is spelled  $\label{eq:mc-g-u-i-n-e-s-s} \text{M-c-G-u-i-n-n-e-s-s}.$ 

MS. LOEWENSTEIN: Thank you.

MR. MCGUINNESS: I've been visiting, and now I've been visiting this area for about 20 years. Fish, kind of hang out, sometimes go for a stroll along Bushy Point. And some observations.

From an engineering standpoint, I'd like to get a full understanding of how you assess the actual penetrations to the airspace. When you stated 50 to 1, you had penetrations, but at 34 to 1 you don't. So what you're talking about is a portion of the trees out on Bushy Point, not the whole tree. A portion of the tree is, quote, "In the most conservative zone penetrating the

airspace."

Last year I happened to be standing out in my front lawn and here comes FLOTUS. She comes in on a 737 to go break a champagne bottle across a submarine bow. They don't let FLOTUS go fly around in unsafe airports. So I would question why we would have a such a situation.

You also have the Air National Guard going in out of there with 131's and, you know, helicopters. Pilots are pretty good at what they do.

But, just a note. I took some forestry when I was in college. Red oaks are out on Bushy Point. People have already noted, these are mature trees. If they grow another two or three feet in height, that's going to be about it.

So when you talk about one to two acres, quote, "of removal of Bushy Point," that's a clear-cut. Just state the fact. You want to clear-cut the island, because you're not going to be able to go out and cut the small trees, because there's no understory. It's all big, mature red oak, period.

There's no mention at all of ospreys that go fly in and out and hang out on Bushy Point at all.

We see them all the time going over there, grabbing fish, having dinner on the -- on the Bushy Point.

So I actually question about some of the detail of the environmental counting of birds or wildlife.

There's also quite a few deer that run across that place, if you don't know. Likewise, coyotes. And I know the airport doesn't like either, but that's the way it goes.

And all that being said, I would have an appreciation of do your engineering. I know you have to, and I know you will. But based upon the design standards that are available, as well as the FAA 50-to-1 requirement, that leaves a lot to be granted in nature's path as compared to plane's path.

So that's all. Thank you.

MS. LOEWENSTEIN: Grace Vanda.

MS. VANDA: I'm good.

MS. LOEWENSTEIN: Okay.

Kimberly Bradley.

MS. BRADLEY: Hello. Okay. So I'm going to be a little redundant here, but I just wanted to stand up as a member of the public and a recreational user of Bluff Point.

By the way, my last name is B-r-a-d-l-e-y.

I am an avid mountain biker, as well as have a three-year-old and a one-year-old at home that use Bluff Point quite often. I also am an Alumni of UCONN Avery Point, so Bushy Point was an important fish area that I studied during my time in graduate school. And finally, I am a professional wetland scientist and ecologist. So I thought it was important to put some information forward.

I've worked on projects such as this, so I understand the balance of needs of the aviation requirements, along with our protection of environmental resources. And I guess I myself am standing here to represent the environmental protection aspect of this.

I want to kind of follow up with the vagueness of the EIE/EA. I believe as our representative from Audubon Connecticut put forward, we have a lot of data and information out there. So although there were -- from my perspective, it did not seem that there are a lot of site-specific evaluations completed at the site.

You know, the presenter noted that wetland assessments were based on NRCS soil mapping, as well as U.S. Fish and Wildlife wetland mapping. Those are definitely planning-level analysis. It's not

anything that decisions should be based off of.

And therefore, especially when it comes to inland wetland resources, unless there is a site-specific delineation, it's very easy to miss some really high-quality resources.

In particular, I think we should focus on the issue with Bushy Point itself, and if there are inland wetland resources within that small one-to-two acres, that's a substantial national resource.

In particular, the DEEP has put forward really a focus on resiliency and looking at protecting our coastal infrastructure, coastal natural resources, as a form of resiliency from our state. Bluff Point, again, is a diamond in the rough for that. And in that sense, to pick apart that diamond, I really feel passionately that we need to evaluate in more detail what we have in place.

Finally, I want to put forward, I'm not sure with the funds that are available what steps would go ahead following any sort of tree removal. Is there mitigation planned? Will there be follow-up, such as in a wetlands restoration or mitigation standpoint where you have four to five years of

monitoring, looking at potential endangered species, presence, so on and so forth?

So ultimately, although this is a planning stage prior to finalizing the EA and EIE -- gosh -- much more data is required to make an informed decision.

MS. LOEWENSTEIN: Thank you.

James Furlong.

 $\label{eq:MR.FURLONG: My name is James Furlong,} $$ F-u-r-l-o-n-g.$ 

I have a lot of questions, most of which

I'll put on the form that you have given me. At

least two people, previous speakers, have mentioned

that -- some feeling that there's something going on

at the airport. Some -- some changes that are

foreseen that is prompting -- that are prompting

this focus on cutting down trees.

I have noticed that there's a coincidence of this effort and the move to create an airport development zone in the -- in the Town of Groton, not the City of Groton where we're meeting tonight, for some reason that I don't understand. Is there a connection?

The airport development zone would be a tax -- a tax break for businesses that are within

two miles of the perimeter of the airport. Not the center of the airport, but the perimeter.

Among the beneficiaries of the tax break would be companies that benefit the airport, though it would not necessarily -- they would not necessarily be restricted to that.

I'm wondering is there -- is this simply coincidence or is it connected?

Thank you.

UNIDENTIFIED AUDIENCE SPEAKER: Good point.

MS. LOEWENSTEIN: Joleen Anderson.

MS. ANDERSON: It's been said. Thank you.

MS. LOEWENSTEIN: Okay. I believe I have not missed anyone.

Is there anyone who wished to speak that I did not call? Okay. All right.

Well, at this point this concludes the hearing. We thank you for coming. Again, comments will be considered or received until January 24th, 2017. And feel free, there's comment sheets on the table if you want to write some comments down. And again, you can e-mail us. Actually, you can e-mail Colin.

(Time Noted: 8:50 p.m.)

## STATE OF CONNECTICUT) COUNTY OF NEW LONDON)

I, Kathryn Little, a Notary Public within and for the State of Connecticut, do hereby certify that I took the testimony at the GON public hearing on December 8, 2016 at the offices of the City of Groton Council Chambers, 295 Meridian Street, Groton, Connecticut, commencing at 7:00 p.m.

I further certify that the testimony was taken by me stenographically and thereafter reduced to writing under my supervision; and that I am not an attorney, relative or employee of any party hereto nor otherwise interested in the event of this cause.

In witness whereof, I have hereunto set my hand and affixed my seal this 21st day of December 2016.

Kathryn Little
Shorthand Reporter #342
Notary Public

My Notary Public Commission Expires March 31st, 2021

# APPENDIX E COMMENTS/ RESPONSES



The following agencies and organizations provided comments on the Draft EA for the above referenced project:

- Connecticut DEEP
   July 14, 2016
- Connecticut DEEP January 24, 2017
- State of Connecticut Council on Environmental Quality November 16, 2016
- Connecticut Fund for the Environment/Save the Sound December 2, 2016
- Connecticut Ornithological Association January 10, 2017
- Groton Open Space Association, Inc. January 24, 2017

The responses to comments include several clarifications, as well as concurrence to adhere to environmental best practices. Please note, many of the responses are related to activities that will occur in the future, during the design and permitting process.

Each of these comment letters are included in its entirety in Appendix B of this document. For the convenience of the reader, both the comment and response are provided below.

### Connecticut Department of Energy & Environmental Protection, Wildlife Division to Fitzgerald and Halliday, Inc. - July 14, 2016

The following four comments focus on the future additional field work that may be necessary to complete the design and permitting phase, as well as tree removal methodology. The response to these comments follows comment 4.

#### Comment 1:

To prevent impacts to State-listed plants, I recommend performing botanical surveys for State-listed species within undeveloped tree removal areas, access routes, and staging or storage sites. I also recommend that CAA develop a project plan with a detailed narrative and maps. Botanical field surveys should be performed by a qualified botanist when target plant species are identifiable; consequently, multiple visits to the site may be necessary. Additionally, surveys should not target just the species listed above, but should aim to identify any and all State-listed plants within the project area. A report summarizing the results of such surveys should include:

- 1. Survey protocol, including survey date(s) and duration
- 2. Description of existing site conditions
- 3. Representative photographs of the site
- 4. List of component vascular plant species within the survey area (including scientific binomials)
- 5. Data regarding population numbers and/or area occupied by State-listed species
- 6. Detailed maps of the area surveyed including the survey route and locations of State- listed plant species
- 7. Statement/résumé indicating the botanist's qualifications

To identify potential impacts to Connecticut Critical Habitats and State-listed species, the project plan for CAA's proposed tree removal should include a detailed narrative and maps which address the following:

- A proposed timeline for removal activities.
- Tree removal methodology, including the type of machinery and vehicles that will be used to complete the work.
- Locations of access routes and staging or storage areas.
- The proposed fate of tree crowns, wood chips, and other debris.
- A detailed plan for invasive species management, including a schedule for survey work and treatments. The botanical survey report and project plan should be sent to the Natural Diversity Data Base

#### Comment 2

Bluff Point Coastal Reserve is an important coastal site for birds during all times of year. To determine what the potential impacts to avian wintering, migratory stopover, and nesting habitat may be from this project, we recommend that avian surveys be conducted by an avian biologist/ornithologist in the removal areas (including staging and access routes) associated with Runway 23, 33 and 5 during those representative times. A report summarizing the results of such surveys should include:

- 1. Survey protocol, including survey date(s) and duration
- 2. Description of existing site conditions
- 3. Representative photographs of the site and habitat
- 4. List of all avian species observed within the survey area and biological activity
- 6. Detailed maps of the area surveyed including the survey route and locations of State-listed birds
- 7. Statement/résumé indicating the biologist's qualifications

The avian survey report should be sent to the Natural Diversity Data Base.

#### Comment 3:

Trees located on the northwestern end of Runway 5 are utilized as wintering owl roosts for species like the short-eared owl (state Endangered). We request a more detailed explanation of which trees in this area will be removed, if any.

#### Comment 4:

Piping plovers (federal and state Threatened), least terns (state Threatened) and American oystercatchers (state Species of Special Concern) nest on Bushey Point Beach from 1 April through 1 September. There are no trees on the beach therefore we do not anticipate activities associated with tree removal will impact the beach. You noted that a visit in July 2015 out to Bushey Island (off the accreting tip of Bushey Point Beach that likely was once attached to the beach) was conducted and that no colonial nesting waterbirds occurred there. Given that a significant wintering owl roost occurs in close proximity to Bushey Island, we recommend that an avian biologist/ornithologist conduct surveys of Bushey Island to determine when the best timing for tree removal would be based on the birds utilizing it during the seasons. During the shorebird nesting season (April through August) access to the island should be by boat or at low tide so as to not to disturb beach nesting birds and chicks.

**Response to comments 1-4**: Prior to design and permitting, a pre-permitting meeting will be scheduled with the CTDEEP and other agencies as appropriate to determine the need for and extent of biological surveys of critical habitat, state listed plants, threatened or endangered species (federal and state). In addition, more details regarding the specific trees to be removed and the methodology used for their removal will be thoroughly coordinated with the CTDEEP and these agencies. As such, tree removal methodologies will proceed as directed upon obtaining required project permits.

#### **Comment:**

Lastly, please be aware that the Bluff Point peninsula is comprised of the following designated areas: 1) the Bluff Point State Park, 2) the Bluff Point Natural Area Preserve (NAP), and 3) the Bluff Point Coastal Reserve which was established by a special act of the Connecticut legislature for the purpose of "preserving its native ecological associations, unique faunal and floral characteristics, geological features and scenic qualities in a condition of undisturbed integrity." Tree removal activities proposed by the CAA fall within each of the three designated areas which are managed differently in accordance with State statutes and departmental regulations.

Response: The CAA understands the three designated areas, and will work with CTDEP to address applicable

statues and regulations. A pre-permitting meeting will take place prior to the initiation of the next phase. In response to comments 1-4, as the project advances into the permitting phase, more detail regarding the specific trees to be removed and the methodology used for their removal will be thoroughly coordinated with the CTDEEP and other regulatory agencies. Tree removal methodologies will proceed as directed in the project permits if issued by CTDEEP.

A description of the special protections afforded this area via state Statute has been included in section 4.2 of the Final EA.

#### Connecticut Department of Energy & Environmental Protection- December January 24, 2017

#### **Comment** (2<sup>nd</sup> Paragraph):

The document is titled an Environmental Impact Evaluation and was noticed in the Environmental Monitor as a Connecticut Environmental Policy Act (CEPA) document. However, section 15-120bb of the Connecticut General Statutes states that the CAA "shall not be construed to be a department, institution or agency of the state. Since CEPA applies to state departments, institutions or agencies, it appears that CAA is exempt from its requirements.

**Response**: CAA concurs that it may be exempt from CEPA and associated requirements. However, CAA is currently seeking separate legal determination on this issue for the Authority's general aviation airports such as Groton-New London and has decided to continue following both NEPA and CEPA procedures for this document.

#### **Comment** (3<sup>rd</sup> Paragraph):

The Department recognizes that the need to remove obstructions to the airspace surrounding airports to ensure their safe operation will require clearing of trees beyond the airport. 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 document focus on recommending measures to consider to further minimize impacts, particularly those at Bluff Point State Park and Coastal Reserve, the only property within the State of Connecticut's system of protected open space so designated, due to the exemplary nature of the coastal habitat types present. We understand that a meeting will be called between our agencies to discuss these issues in further detail.

**Response:** Agreed. As stated response to comments 1-4 above, a pre-permitting meeting will be held with the agencies to discuss these issues in further detail at the start of the design and permitting phase.

#### **Comment** (4<sup>th</sup> Paragraph):

As noted in our scoping comments, any proposal that involves DEEP Property would entail a grant of property rights from the Department. Requests for temporary or permanent property rights are reviewed by the 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.

**Response**: Agreed, after the CAA has developed the above referenced design and permitting plan that avoids and minimizes adverse impact, the request for temporary or permanent property rights as appropriate will be initiated to identify any necessary mitigation measures for any project elements on CT DEEP property.

#### **Comment** (5<sup>th</sup> Paragraph):

The Department is very concerned about the extent of tree removal proposed for the Bluff Point Coastal

Reserve. Page 3-4 notes that FAA recognizes that off-airport clearing "is often impractical due to environmental impacts" and has defined a different approach surface, the Threshold Surface, to be utilized in such circumstances. The steeper slope of the Threshold Surface results in fewer penetrations, leading to reduced clearing.

**Response**: Correct, the Threshold Surface provide a steeper slope than the Approach Surface for Runway ends 5, 23, and 33. The Modified Obstruction Removal Alternative use this difference to reduce CAA's recommended clearing as compared to the Full Obstruction Removal Alternative. However, an additional tree removal buffer is included in the recommendation. It is understood that CTDEEP requests that the recommended action further minimize the proposed clearing by only addressing current penetrations.

CAA concurs that further minimization is possible, and agrees to address this prior to advancing the project. This effort may include an updated tree elevation survey, as tree heights are dynamic and change overtime.

#### **Comment** (6<sup>th</sup> Paragraph):

The designations of portions of Bluff Point State Park as a Coastal Reserve and Natural Area Preserve were noted in our scoping comments; however the additional protections afforded to these areas under the Connecticut General Statutes and through Special Acts of the General Assembly were not acknowledged in the EA text. The biological and natural heritage significance of the Bluff Point forest and Bushy Point sand spit justify the use of the more lenient Threshold Surface criteria. Protecting these resources to the maximum extent possible will be a critical factor in any decision by the Department to grant CAA property rights that could affect the condition to these critical resource area.

**Response**: Reference to the special protections afforded Bluff Point State Park, the Coastal Reserve and Natural Area Preserve Act of the General Assembly will be included in Section 4.2 Section 4(f) Lands as follows:

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. 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. This 117 acre area is to be maintained 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 CTDEEP Bureau of Outdoor Recreation State Parks Division map titled Bluff Point State Park & Coastal Reserve and dated January 23, 2015 is included in this Appendix.

#### **Comment** (7<sup>th</sup> Paragraph):

Page 3-5 notes that clearing for Runways 23 and 33 could be limited to just a few tall trees (magenta dots), but that additional clearing of Approach Surface trees (blue dots) are recommended to prevent further penetrations of the Threshold Surface. CAA would work with DEEP to determine the extent of these removals. Bluff Point land should not be singled out for additional clearing to address any potential penetration of the Threshold Surface that may occur in the future based on possible growth of trees not currently penetrating this surface. The Department expects to limit tree clearing to the maximum extent possible, particularly within the Coastal Reserve, to satisfy the least restrictive FAA safety standard, using the existing height of trees, many of which are likely at or near maturity.

**Response**: Agreed, as stated in response to comments 1-4 above, as the project advances into the design and permitting phase, more detail regarding the specific trees are to be removed and the methodology used for their removal will be thoroughly coordinated with the CTDEEP and other regulatory agencies. The goal is remove those obstructions necessary to provide adequate safety and to minimize impacts the Bluff Point State Park, the Coastal Reserve and well as the Natural Area Preserve.

#### **Comment** (8<sup>th</sup> Paragraph):

It appears that differential between the height of obstructions to the Threshold and the Approach Surfaces would be substantial, particularly in the case of Runway 33. The large area designated for selective removal within the Coastal Reserve has only one magenta dot and numerous blue dots. However, as noted on page 3-2, the dots are representative and there are likely many more tree penetrations. The area for selective removal ranges between 2400' to 3600' away from the runway end, so the difference in the surface heights between the 1:20 and 1:34 surfaces would be 50' to 75' (all numbers approximate). It would be instructive for reviewers if maps could be generated by using GIS data for ground elevation and Threshold or Approach Surface elevation that would depict the height of obstructions that would penetrate each of these surfaces at various locations. It would also be helpful if approximate numbers of trees to be removed could be estimated.

**Response**: Available Geographic Information System GIS data was used during the preparation of this document. However, such information is also quickly dated with respect to vegetation. Furthermore, there is no defined accuracy of the GIS mapping for tree top elevations, thus it cannot be relied on as the only data for obstruction analysis. The photogrammetry employed for most GIS mapping may be intentionally obtained during leaf-off conditions so that the ground and objects are more clearly visible. Unfortunately, leaf-off condition data is unreliable for identifying deciduous tree top elevations. As such, GIS data was used in presentations to property owners and the public, but not for study recommendation.

CAA intends to measure (survey) the clearing areas, where necessary, during the permitting process in order to employ the most up to date tree height information. Tree top data may become dated with every year of growth, which is also why removal areas identified in the EA include some buffer. The CT ECO, GIS data that may be available this year (2017) can certainly be considered for use in the next stage in the process, as well as additional site survey activities as needed.

#### **Comment** (9<sup>th</sup> Paragraph):

The nature of the forest cover at this location must be explored. Are the trees approximately the same height, with a fairly uniform canopy, or are there individual trees that are significantly taller? Would topping a few taller trees effectively remove obstructions of the Threshold Surface?

**Response**: Tree trimming (often referred to as tree topping), is not the preferred obstruction removal approach by the FAA or CAA, but will be considered if and where necessary. Trimming/topping is generally less effective and more difficult and costly than selective removal of tall (obstructing) trees.

The general practice for airport tree obstruction removal is to selectively remove trees that are within 10' of the defined surface for the area of interest. The primary advantage to this approach is that the removal may be effective for 10 or more years, while trimming (if feasible) may require re-trimming every 1-3 years, with the disturbance to property owners and the natural habitat. If the tree obstructions are within sensitive areas (i.e., wetlands), it may be impractical to obtain permits for continuing activity. Nevertheless, if necessary for environmental reasons or required by the CTDEEP and/or the property owner, trimming/topping has and will be employed as part of an FAA-funded tree obstruction removal project.

Airport obstruction projects often cite trimming as generally not an effective method to remove and manage obstructions based on information from the International Society of Arborists (ISA). ISA indicates that topping can remove 50 to 100 percent of a tree's leaf-bearing crown. This can cause significant stress to a tree as it rushes to produce new leaves. If the tree does not have adequate stored energy reserves it will be seriously weakened and may die. The ISA also identifies increased risk of insect infestation, decay, and sunburn" of tissues below the bark. In addition, altering a trees natural shape generally leaves behind trees that are "ugly". We understand that the Department would not likely request trimming if such conditions were anticipated.

Regarding avigation easements, if trimming is necessary in order to obtain property owner approvals, it would certainly be considered. In fact, if during the acquisition and permitting process, a property owner, the Department, or other regulatory agency requires tree trimming/topping, the CAA will take that approach. However, FAA and CAA prefer selective tree removal as the recommend approach.

#### **Comment** (10<sup>th</sup> Paragraph):

We also note that the Figure for the Runway 33 end depicts the Threshold Surface beginning at the runway end, not the threshold end, unlike the Figure for Runway 15. An extra 200' would raise the surface by 10'. In addition if there are a significant number threshold Surface obstructions, could extending the threshold even further back down the runway (i.e., modifying runway 'declared distances') eliminate or significantly reduce required clearing? What are the potential safety and aviation impacts of such a scheme?

**Response**: The Runway 33 end has a published instrument approach procedure, which requires the Threshold Surface to start 200' prior to the threshold (the landing point on the runway) as a safety buffer for operations occurring during low visibility conditions. On the opposite runway end, Runway 15, there is no instrument procedure. Therefore, the safety buffer is not required and the Threshold Surface starts at the same location as the threshold.

If the Runway 33 threshold was further displaced, it would reduce the landing length available for the aircraft that regularly use the runway. The CAA has completed an FAA approved airport master plan, which includes a review of the necessary runway lengths. Runway 15-33 is currently 4,000 feet, but has an available landing distance limited to 3,666 feet due to property limitations and published declared distances. The master plan recommends maintaining this landing distance for the safe operation of the airfield. Moving the threshold would functionally eliminate the use of the second runway by the designated design aircraft.

#### **Comment** (11<sup>th</sup> Paragraph):

The Figure for Runway 23 does not depict the 20:1 Threshold Surface. The selective removal area within Bluff Point State Park does not include any magenta dots. Are there any obstructions within the Threshold

#### Surface at this location?

**Response**: The Threshold Surfaces were not depicted on the Runway 5 or 23 ends as their start location is the same as the Approach Surface. At the time of the survey, there were no obstructions to the Runway 23 Threshold Surface. However, the FAA has since informed CAA of penetrations to the atypical instrument approach to Runway 23 which approaches the runway at a slight angle from the east. Thus, some tree removal is required to improve the safety of this procedure. As stated for other runway ends, the CAA agrees to review this area for the potential reduction in clearing area to minimize potential impacts.

#### Comment (12th Paragraph):

Similarly, the Figures for the Runway 5 end depicts the 50:1 Approach Surface, but not the 34:1 Threshold Surface. It should be verified that the obstructions proposed for removal violate the more relaxed 34:1 standard. Because the island is an eroding landform, any tree removals must be accomplished in a manner that will not accelerate erosion.

**Response**: The Threshold Surfaces were not depicted on the Runway 5 or 23 ends as their start location is the same as the Approach Surface. At the time of the survey, there were several penetrations to the 34:1 Threshold Surface, or trees within 10' of the surface. Removals in this area can be minimized, and conducted in a manor to protect against erosion.

#### **Comment** (13<sup>h</sup> Paragraph):

Page 4-10 notes that additional consultation with DEEP is recommended and that specific surveys for fauna, particularly avifauna, may be warranted. As a member of the Property Management Review Team, the Wildlife Division will continue to provide guidance as cutting plans are refined. Among issues to be considered are:

- Use of Bluff Point area northeast of Runway 23 by migratory birds,
- Presence of winter owl roost near Bushy Point
- Potential disturbance of shorebirds nesting areas by accessing Bushy Point.

**Response**: Agreed. Prior to design and permitting, a pre-permitting meeting will be scheduled with the CTDEEP and other agencies as appropriate to determine the need for and extent of additional field work that addresses critical habitat, state listed plants, threatened or endangered species (federal and state) to be provided to CTDEEP and other agencies as identified by CTDEEP. These may include specific surveys for fauna, particularly avifauna. As the project advances into the permitting phase, more detail regarding which specific trees are to be removed and the methodology used for their removal will be thoroughly coordinated with the CT DEEP and other regulatory agencies.

#### **Comment** (14<sup>th</sup> Paragraph):

With regard to cave bats and breeding birds, page 5-9 states: "Based on other airport obstruction removal projects, direct impacts to these species may be avoided via use of season 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, as long as the winter owl roost is not disturbed. This conclusion will be reviewed by USFWS and CT DEEP to determine if biological surveys and potential mitigation are necessary." In order to assure protection of these species, the department recommends that this restriction be extended: from April 1st through September 30th.

**Response**: Comment noted. As the CTDEEP has requested in its review of the other CAA general aviation airports, tree removals will not occur during the period of April 1 to September 30.

#### Comment (15th Paragraph):

The Department and ConnDOT had worked together to complete various projects and conduct operations at the airport in a manner that protected the biological diversity at Groton – New London Airport. DEEP anticipates that CAA, as the successor entity, will honor all legal commitments pursuant to statutory requirements made by their predecessor. We look forward to continuing collaboration with CAA toward that goal.

Response: Agreed.

#### **Comment** (16<sup>th</sup> Paragraph):

The document should include reference to the Baker Cove Watershed Plan (2011) and its recommended actions to address nonpoint source pollution loading to the adjacent Birch Plain Creek and receiving Baker Cove. Stormwater management, invasive species control, riparian buffer planting enhancements, and nuisance goose flock control are identified as mitigation measures for sources of excess water-borne pathogens and nutrients that have degraded designated water-based recreation uses and resulted in shellfish bed closures. Targeted management strategies are recommended in this water quality improvement plan. Airport management has provided preliminary input to assist with specific actions involving area goose flock management measures. Such stakeholder involvement will be coordinated by Eastern Connecticut Conservation District staff starting in Spring, 2017 as part of a nonpoint source pollution management funding agreement with this Department. Proposed airport tree cutting and other obstruction removal measures, particularly along the Runway 15 approach, should carefully consider associated stormwater runoff controls and avoid creating additional favorable upland habitat conditions for geese and other waterfowl. Final obstruction removal plans should be shared with the coordinating Conservation district project staff to ensure that their area coordinated actions are not inadvertently undermined. information Additional can be found online at: http://www.ct.gov/deep/lib/deep/water/watershed management/wm plans/bakercove wbp.pdf

**Response**: The Baker Cove Management Plan focuses on the control of nonpoint source pollution. As indicated in the EA the CAA will submit a Stormwater Pollution Control Plan (SWPCP) during the design and permitting phase. This will address potential impacts that could occur as it relates to the removal of riparian vegetation and will include the appropriate mitigation. Control of the Geese population is an issue unrelated to the action under review but is a concern of the CAA for aeronautical safety reasons.

#### Comment (17th Paragraph):

Stormwater discharges from construction sites where one or more acres are to be disturbed, regardless of projecting phasing, require an NPDES permit for 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 undertaken by CAA, disturbing over 1 acres 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. The construction stormwater general permit registrations can be filed electronically through DEEP's e-Filing system known as ezFile. Additional information can be found on-line at: <a href="http://www.ct.gov/deep/cwp/view.asp?a=2721&q=558612&DEEPNav GID=1654">http://www.ct.gov/deep/cwp/view.asp?a=2721&q=558612&DEEPNav GID=1654</a>

Response: Agreed, the CAA will submit a SWPCP during the design and permitting phase.

#### State of Connecticut Council on Environmental Quality – November 16, 2016

#### **Comment** (2<sup>nd</sup> paragraph):

The council will defer to the expertise of the Department of Energy and Environmental Protection (DEEP) regarding the potential ecological consequences of the tree-removal activity. However, the Council recommends that the EIE clarify the legal status of the lands and proposed activities.

**Response:** Section 4.2 of the Final EA and EIE has been edited to include language describing the protections afforded the Bluff Point State Park, the Bluff Point Coastal Reserve and the Bluff Point Natural Area Preserve. In regards to the location, numbers and methodology for removal these will be determined as part of the design and permitting phase. All work completed on behalf of the CAA will proceed as directed in any project permits issued by CTDEEP.

#### **Comment** (3<sup>rd</sup> paragraph):

Many of the maps and other portions of the EIE use the terms "Bluff Point State Park," "Bluff Point Coastal Reserve," and "Bluff Point State Park and Coastal Reserve" interchangeably. This does not match the Council's understanding of these properties. Bluff Point Coastal Reserve, designated by a Special Act of the Connecticut General Assembly, includes most of Bluff Point State Park and is managed according to its own regulations (Section 23-4-4). Those regulations afford the natural environment of Bluff Point Coastal Reserve far greater levels of protection than other park properties managed by DEEP. It is not clear that those regulations would allow the Commissioner to authorize three removal, regardless of the purpose or merits of the removal. The Council's understanding of the Commissioner's authority might be incomplete, and the Council recommends strongly that the document clarify, with a legal opinion if necessary, the Commissioners authority to allow trucks, tree-cutting equipment and tree removal itself inside the Reserve.

**Response:** Section 4.2 of the Final EA and EIE has been edited to include language describing the protections afforded the Bluff Point State Park, the Bluff Point Coastal Reserve and the Bluff Point Natural Area Preserve. In addition a CTDEEP map delineating these areas has been included at the end of this appendix. In regards to the location, numbers and methodology for removal these will be determined as part of the design and permitting phase. All work completed on behalf of the CAA will proceed as directed in the any project permits issued by CTDEEP.

#### **Comment** (4<sup>th</sup> paragraph):

The EIE does not address a third category of land, the Bluff Point Natural Area Preserve. Some of the easternmost tree removals appear to be proposed to occur within the Natural Area Preserve. Natural Area Preserves are managed under separate regulations (Section 23-5c-1) that are intended to minimize human disturbance. Those regulations prohibit vegetation removal other than that which is described in the management plan for a preserve. Again, the Council recommends that the Record of Decision clarify the Commissioner's authority to allow tree removal in a Natural Area Preserve.

**Response:** As noted above, in regards to the location, numbers and methodology for removal these will be determined as part of the design and permitting phase. All work completed on behalf of the CAA will proceed as directed in any project permits issued by CTDEEP.

#### Connecticut Fund for the Environment/Save the Sound - December 2, 2016

Comment I (The Draft EA/EIE Fails to Consider Habitat Implications of Tree Removal):

The current Draft EA/EIE contains an incomplete analysis of the likely habitat impacts on the numerous avian, mammal and marine species that are present in the local ecosystem. As the largest remaining undeveloped parcel of coastal woodland on the Connecticut shoreline, Bluff Point State Park serves a critical role for its constituent species on both a local and regional scale. For example, Bluff Point is located within a major migratory bird flyway, with at least 222 distinct species of migratory birds having been observed with the Park and Coastal Reserve. The National Oceanic and Atmospheric Administration has designated the waters around Bushy Point as essential habitat for several state and federal endangered or otherwise threatened species, including the Piping Plover (*Charadrius melodus*), Roseate Tern (*Sterna dougallii*), American Ostercatcher (*Haematopus palliates*), Common Tern (*Sterna hirundo*), Long-eared Bat (*Myotis septentrionalis*), and the unique New England Cottontail Rabbit (*Sylvilagus transitionalis*).

The Draft EA/EIE fails to adequately address the impacts that tree removal may have upon affected species within the Park and Coastal Reserve. Greater consideration of such implications is imperative, given the endangered and threatened status of several species and the overall protections afforded to avian species generally by the Migratory Bird Treaty Act and its attendant regulations. The Draft EA/EIE currently recognizes these impacts in only a cursory manner, without providing detailed, substantive information on how such impacts will be proactively mitigated. For example, when noting that the selective thinning of forest beneath the Runway 33 approach will likely destroy habitat for the Wood Thrush (*Hylocichla mustelina*) and Worm-eating Warbler (*Helmitheros vermivorus*) — which have been the subject of renewed state habitat conservation efforts — the Draft EA/EIE summarily concludes that such species will not be impacted due to the overall size of available habitat elsewhere In the area. Relying on the remainder of the woodland in the Park and Coastal Reserve to absorb those wildlife populations that tree removal adversely affects is insufficient. Indeed, it is the uninterrupted 800 acres of woodland at Bluff Point that makes the area such a critical habitat resource this is particularly so in regard to the proposed tree removal on Bushy Point which by virtue of its geography, is less accessible than other portions of the Park and therefore all the more critical as undisturbed habitat.

Rather, CAA should craft its tree-removal plans-in coordination with the Department of Energy and Environmental Protection ("DEEP") and other stakeholder organizations to implement removal in a manner that provides a net benefit to the local ecosystem by capitalizing upon ways in which the thinning of healthy forest can create additional habitat. For example, if managed properly and prudently, the open spaces created by the preferred alternative could potentially provide increased habitat for particular species such as the imperiled New England Cottontail, a longtime candidate for listing under the federal Endangered Species Act, the American Woodcock (Scolopax minor), and the Indigo Bunting (Passerina cyanea). Although the Draft EAIEIE recognizes the potential for such habitat benefits, it includes no specifics beyond that. As the removal of trees within the Park and Coastal Reserve will require coordination with biologists, certified foresters, and wildlife management experts as well as ultimate approval of DEEP CAA should begin planning how to carefully and proactively manage its proposed tree removal at the EAIEIE stage in order to ensure that habitat benefits become a reality and adverse impacts are avoided. Indeed, given the widespread interest in habitat creation for vulnerable species, CAA would likely be able to partner with interested groups in such an endeavor. Likewise, in examining how the preferred alternative can be used as a vehicle for net ecosystem benefits, CAA must identify and address negative impacts that may arise due to tree removal. For example, clearing trees may result in the propagation of destructive invasive species already present within the Park and Coastal Reserve such as Asiatic Bittersweet (Celastrus orbiculatus) and Japanese Barberry (Berberis thunbergii), the latter of which some researchers suggest may be correlated with an increased prevalence the Deer Tick (Ixodes scapularis), which serves as a vector for Lyme Disease. Similarly, the removal of trees could foster increased growth of browse and the forest understory, leading to an increase in the local White-tailed Deer (Odocoileus virginianus) population well beyond the ecosystem's carrying capacity, a problem Bluff Point has faced in the past and which required intervention by DEEP. With adequate foresight and preparation, the tree removal that the preferred alternative entails can be carried out in such a way that will minimize harmful impacts to the sensitive Bluff Point ecosystem and provide select habitat benefits. As the Draft EA/EIE does not substantively consider such strategies, CFE urges that CAA take these options under serious consideration moving forward.

**Response**: Agreed, specific surveys for fauna, particularly avifauna will be conducted as required prior to any tree removal activities. As the project advances into the permitting phase, more detail regarding which specific trees are to be removed and the methodology used for their removal will be thoroughly coordinated with the CTDEEP and other regulatory agencies. As a member of the Property Management Review Team, the Wildlife Division of CTDEEP will continue to provide quidance as cutting plans are refined.

#### **Comment II** (The Draft EA/EIE Contains No Analysis Regarding Climate Change):

CFE is deeply concerned that the Draft EA/EIE contains zero analysis or consideration of the climate change implications of removing numerous trees in a vulnerable coastal ecosystem. Forested areas provide critical ecosystem services by functioning as carbon sinks that naturally absorb excess carbon dioxide from the atmosphere. Due to the large size of the coastal forest present within the Park and Coastal Reserve, Bluff Point's woodlands are doubtless a critical sequestration resource. Given the current state of the Draft EA/EIE, it is uncertain as to exactly how many individual trees CAA is proposing to remove and therefore difficult to analyze the cumulative climatological impacts that such removal will have at a both a state and regional level. Likewise, .the Draft EA/EIE is silent on whether the removal of airspace obstructions will lead to an increase in air traffic utilizing the Groton-New London Airport. If so, CAA must analyze the effects of increased greenhouse gas emissions from an increase in air traffic. Although anthropogenic climate change is a problem of global significance, its localized effects are especially pertinent in this case. An ICLEI and DEEP report to the Town of Groton on local climate change preparation and resiliency specifically identified both the Groton-New London Airport and Bluff Point State Park and Costal Reserve as areas that stand be adversely affected by sea level rise and the increased risk of localized flooding during weather events. Thus, despite the state and municipal recognition of local climate vulnerability, the Draft EA/EIE does not factor this element into any of its environmental impact analyses.

**Response**: FAA and DEEP do not have specific policies or guidelines to evaluate the impacts of tree removal as it relates to climate change. FAA desktop reference 1050.1F addresses climate change as it relates to creation of CO2 emissions. At the federal and state level, climate change impacts are now being reviewed with respect to projects with developments and facilities that result in additional CO2 emissions. This project will remove tall trees, but will not produce CO2 emissions.

At the conclusion of this project, the remaining vegetation will continue to grow including both trees and understory. As such, area areas will remain vegetated and wooded, with substantially less environmental effect than if the project was to include pavement and development of the area. Federal standards to not address tree removal itself as a potential significant impact on climate change.

It is should be noted and as stated in the EA that this project addresses safety issues related to obstructions, it will not result in any change in airport operations.

**Comment III** (The Draft EA/EIE Fails to Consider the Unique Status of Bluff Point): Finally, as the Draft EA/EIE explicitly recognizes, Bluff Point serves as an important undeveloped coastal

barrier. The Park and Coastal Reserve contain a number of rare and unique habitats, including coastal woodlands, saltmarshes, sand beaches, coastal grasslands, and intertidal marshes. Many of the aforementioned at-risk species rely on the presence of these habitats at one point or another in their respective life cycles. Underlying the Connecticut General Assembly's decision in 1975 to permanently protect Bluff Point was its recognition that it was worth "preserving its native ecological associations, unique faunal and floral characteristics, geological features and scenic qualities in a condition of undisturbed integrity." In regard to the preferred alternative specifically, the unique coastal woodland ecosystem within the Park and Coastal Reserve is particularly precious given the large size of the forest parcel and that many of the trees therein are 90 to 100 years of age.

The Draft EA/EIE, however, treats the Park and Coastal Reserve as any other parcel of private property CAA must obtain access to and not as the sensitive ecosystem and unparalleled biological resource that it is in reality. The property owner at issue is DEEP-charged with the duty of safeguarding the property and its resources-and by extension, the people of the State of Connecticut, all of whom have a public right in the use of the Park and Coastal Reserve. Any action that CAA takes at Bluff Point broadly affects the public and if CAA is not already in communication with DEEP concerning its proposal, it is imperative that it initiate such communication immediately. Given the ecological importance of the woodlands located at Bluff Point, CAA should consider additional safeguards and methods to ameliorate the impacts of the preferred alternative. In the process of identifying which trees need to be removed, CAA should, in consultation with DEEP, identify whether certain trees can simply be pruned to remove airspace obstructions rather than felled entirely. Likewise, CAA should consider replanting policies in order to prevent a net loss of trees within the Park and Coastal Reserve. For example, a one-for-one replanting program would replace those trees removed below the runway approaches with new tree plantings in other portions of the Park and Coastal Reserve that will not grow into airspace in the future. Additionally, trees could be planted in throughout the park in strategic ways that would provide overall ecological benefits, such as increased flood resiliency and soil stability in vulnerable areas or preemptive protection against encroachment by deleterious invasive species. As such action will require CAA to extensively coordinate its efforts with DEEP, these mitigation measures should be considered as soon as possible and not later, subsequent to the actual tree removal.

**Response**: CTDEEP has been involved with this project since its inception, beginning with the scoping documents it provided in July 2015 (Appendix B). Recognizing that CTDEEP is charged with the duty of safeguarding Bluff Point State Park, Coastal Reserve and Natural Area Preserve, a pre-permitting meeting will be conducted prior to advancing the design phase. All work completed on behalf of the CAA related to this project will proceed as directed in the approved project permits issued by CTDEEP.

#### Connecticut Ornithological Association - January 10, 2017

#### **Comment** (1<sup>st</sup> Paragraph):

While we recognize that some trees may need to be removed for the safety of users of the Groton-New London Airport we favor judicious, well thought-out removal of only those trees that actually impact airport functions. Such removal should be conducted so that minimal damage is done to the surrounding habitat. We further support timing of such necessary removal so as to have the project take place during the non-breeding season for wildlife that resides in the affected area. Trees chosen for clearing should be examined closely to insure that owls (which do nest in the winter) will not be affected.

**Response:** Extensive coordination with CT DEEP will occur during the design and permitting phase and prior to any removals. As previously requested by CT DEEP during its review of other general aviation airports, no removals will take place between April  $1^{st}$  and September  $30^{th}$ . The goal of the CAA is to remove trees in such a manner as to provide adequate safety to aviation traffic and limit to the maximum extent possible potential

impacts to habitat and wildlife.

#### **Comment** (2<sup>nd</sup> Paragraph):

We ask that funds be provided for the planting of native wildlife friendly plants to mitigate the damage done and to discourage repopulation of the cleared areas by invasive species. It would be wonderful if some habitat mitigation be woven into a larger wildlife plan for Bluff Point, including removal of invasive plants from the "hot corner" area (parcel 18), a location beloved by birders. Thoughtful management of this project could create valuable shrubland habitat that would benefit shrub dwelling bird species and the New England Cottontail, a species of conservation concern.

**Response**: CAA will work with CTDEEP during the permitting process to minimize damage and protect against invasive species. If such protections and permitting include planting of native wildlife friendly plants, then the project funding will include that effort. The CAA rightfully defers to CTDEEP with regard to any overall wildlife planning or management of the Park.

#### Groton Open Space Association, Inc. – January 24, 2017

#### **Comment** (1<sup>st</sup> Paragraph):

Groton Open Space Association (GOSA) recommends that the Connecticut Airport Authority conduct a full Environmental Impact Statement for the proposed Bluff Point Project for the following reasons:

1. Special Act No. 76-27 <u>AN ACT CONCERNING THE USE OF LAND AT BLUFF POINT COASTAL RESERVE</u> states that: "no improvement shall be undertaken which does not contribute to the preservation of the natural, scenic, historical or ecological values of the 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 the department of environmental protection." CT DEEP as the owner of the property, has a mandate to ensure actions are consistent with the act.

**Response:** The FAA is the federal lead agency under NEPA, and has determined that an Environmental Assessment is the appropriate document to review the potential impacts. Recognizing that CTDEEP is charged with the duty of safeguarding Bluff Point State Park, Coastal Reserve and Natural Area Preserve, a prepermitting meeting will be conducted prior to advancing the design phase. All work completed on behalf of the CAA related to this project will proceed as directed in any project permits issued by CTDEEP, and per access agreements or easement issued by CTDEEP.

2. <u>FAA regulations allow for a 20:1 slope on three of the runway approaches.</u> Moving the landing point further away from Bluff Point on Runway #33 would provide for a higher tree clearance and ensure a safe 20:1 approach without having to cut trees on the Bluff Point peninsula. The runway would be essentially shorter for landings, but the full length could still be used for take-offs. This alternative needs further exploration by the CAA.

**Response:** If the Runway 33 threshold was further displaced, it would reduce the landing length available for the aircraft that regularly use the runway. The CAA has completed an FAA approved airport master plan, which reviewed the length of Runway 15-33, which is currently 4,000 feet, but with an available landing distanced of 3,666 feet due to declared distances. The master plan recommends maintaining this landing distance for the safe operation of the airfield. Moving the threshold would functionally eliminate the use of

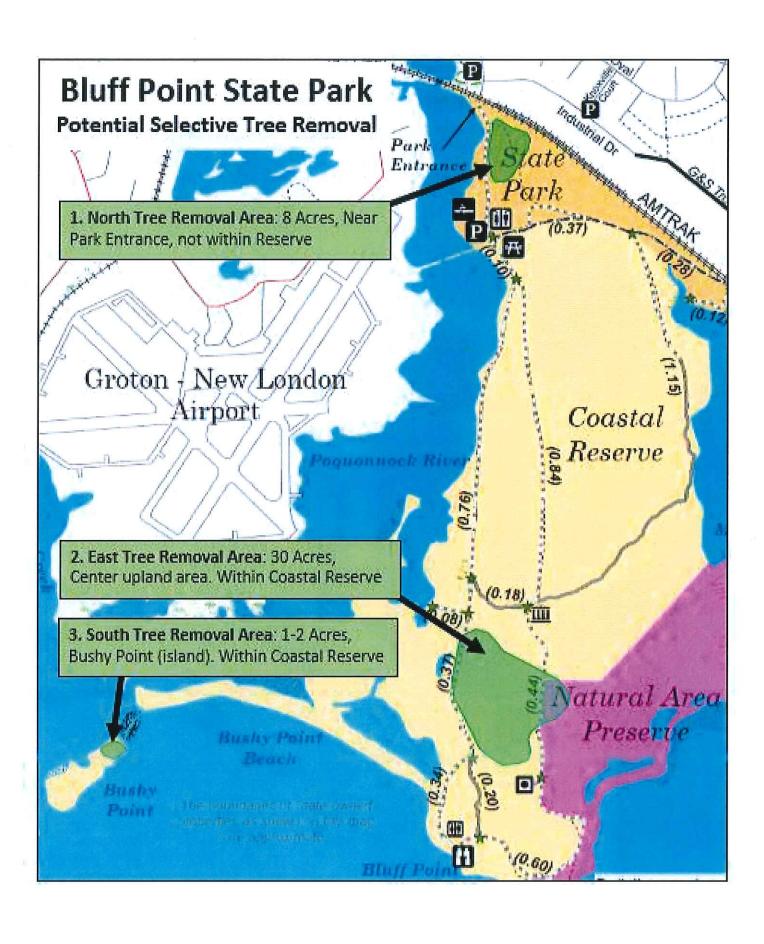
the second runway by the designated design aircraft.

3. The proposed draft plan offers only vague details about the potential impact from logging practices on flora and fauna and offers nothing about future reforestation efforts. Sensitive ecosystems could be at risk from trucks, heavy logging equipment, clear cutting, erosion, sedimentation and improper debris disposal. There could be impacts to the endangered piping plover if trucks were to traverse the beach habitat to access Bushy Point. A previous logging project on Bluff Point caused harm to wildlife by removing beneficial shrubs and by dumping a three-to-four foot thick layer of wood chips on the forest floor.

**Response:** Agreed. Recognizing that CTDEEP is charged with the duty of safeguarding Bluff Point State Park, Coastal Reserve and Natural Area Preserve, a pre-permitting meeting will be conducted prior to advancing the design phase to address the location, numbers and methodology for removals. All work completed on behalf of the CAA related to this project will proceed as directed in any project permits issued by CTDEEP.

4. Bluff Point is unique as the last large coastal forest peninsula having stands of mature trees in Connecticut. A complete environmental impact statement is needed to identify the exact location of specific rare and endangered plants and animals that could be at risk from the proposed forestry activities. Vulnerable areas also include sand beaches (with endangered piping plover habitat). Brackish marshes, freshwater wetlands, coastal wetlands, coastal grasslands, coastal woodlands and special coastal shrub lands resulting from wind and salt spray impacts.

**Response:** A complete EIS is not needed to evaluate environmental impacts. Prior to design and permitting, a pre-permitting meeting will be scheduled with the CTDEEP and other agencies as appropriate to determine the need for and extent of additional field work that addresses critical habitat, state listed plants, threatened or endangered species (federal and state) to be provided to CTDEEP and other agencies as identified by CTDEEP. These may include specific surveys for fauna, particularly avifauna. As the project advances into the permitting phase, more detail regarding which specific trees are to be removed and the methodology used for their removal will be thoroughly coordinated with the CT DEEP and other regulatory agencies.



#### **Public Comments**

The public provided comments at the public hearing, via email, and written correspondence. Many comments focused on similar issues. As a result, all public comments and applicable responses were organized by category. Approximately 74 emails/letters or phone calls were received from the public. Approximately 13 members of the public spoke at the Public Hearings held on December 8, 2016 which were attended by approximately 59 people. All comments received regarding this project are include in their entirety in Appendix B of this document.

## Comment: Approximately 15 comments were received regarding the potential for erosion impacts in the coastal area and general ecosystem.

Response: The CAA is required to submit a Stormwater Pollution Control Plan (SWPCP) for all areas affected by removals to the CTDEEP during the design and permitting phase. The SWPCP will include measures such as erosion and sediment controls and post construction stormwater management for tree removal areas and access areas. The tree removals cannot advance without such permits, which provide the measures necessary to prevent significant erosion.

## Comment: Approximately 40 comments were related to bird species and other wildlife species resulting from potential removals particularly in the Bluff Point State Park, Coastal Reserve, and Natural Preserve Area.

It is noted throughout the Final EA and in response to several comments received on this project that prior to design and permitting, a pre-permitting meeting will be scheduled with the CTDEEP and other agencies as appropriate to determine the need for and extent of additional field work to addresses critical habitat, state listed plants, threatened or endangered species (federal and state). The activities could include biological surveys and wetland delineations (as determined by CTDEEP). In addition, more detail regarding the specific trees to be removed and the methodology used for their removal will be coordinated with the CTDEEP and other agencies. As such, tree removal methodologies will proceed as directed in any approved project permits.

Section 5.15 of the Final EA "states wood chips will not be spread in any removal areas. Proper waste management and handling wood chips will be a part of contractor specifications". This will be a condition of any permit received from the CTDEEP. This is reiterated in in Section 5.17.

## Comment: 10 public comments both promoted and advised against the topping of trees as a removal technique.

Response: Tree trimming (often referred to as tree topping), is not the preferred obstruction removal approach by the FAA or CAA, but will be considered where necessary by CTDEEP and other property owners. Trimming/topping is generally less effective and more difficult than selective removal of tall (obstructing) trees.

The general practice for airport tree obstruction removal is to selectively remove trees that are within 10' of the defined surface for the area of interest. The primary advantage to this approach is that the removal may be effective for 10 or more years, while trimming (if feasible) may require re-trimming every 2-4 years, with the disturbance to property owners and the natural community. If the tree obstructions are within sensitive areas (i.e., wetlands), it may be impractical to obtain permits for continuing activity.

Nevertheless, if necessary for environmental reasons or required by the property owner, trimming/topping has and will be employed as part of an FAA-funded tree obstruction removal project.

Airport obstruction projects often cite trimming as generally not an effective method to remove and manage obstructions based on information from the International Society of Arborists (ISA). ISA indicates that topping can remove 50 to 100 percent of a tree's leaf-bearing crown. This can cause significant stress to a tree as it rushes to produce new leaves. If the tree does not have adequate stored energy reserves it will be seriously weakened and may die. The ISA also identifies increased risk of insect infestation, decay, and sunburn" of tissues below the bark. In addition, altering a trees natural shape generally leaves behind trees that are "ugly". We understand that the Department would not likely request trimming if such conditions were anticipated.

In regards to the use of selective thinning vs. clearcutting Section 3.1.2 of the Final EA indicates that in order to reduce potential environmental impacts, the tree clearing would primarily include removal of all sizable trees, but retain 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, coastal areas, and archeological resources. It is not a permanent solution as trees will eventually regrow. This use of this technique rather than topping should result in a design life of 10-20 years.

Comment: 18 comments requested clarification of how the approach and threshold surfaces are determined, and/or requested an alternative that further displaced the runway thresholds (particularly Runway 33).

**Response**: The Approach Surface always begins 200' before the end of the runway. At GON, Runway 15-33 has displaced thresholds, which identifies that the runway landing point is displaced from the runway end. In this case, the displacements provide a safety area ahead of the landing point of the runway. The Threshold Surface may begin at the threshold (the landing point on the runway), or 200' before the landing point.

The Runway 33 end has a published instrument approach procedure, which requires the Threshold Surface to start 200' prior to the threshold as a safety buffer for operations occurring during low visibility conditions. On the opposite runway end, Runway 15, there is no instrument procedure. Therefore, the safety buffer is not required and the Threshold Surface starts at the location of the threshold.

If the Runway 33 threshold was further displaced, it would reduce the landing length available for the aircraft that regularly use the runway. The CAA has completed an FAA approved airport master plan, which includes a review of the necessary runway lengths. Runway 15-33 is currently 4,000 feet, but has an available landing distance limited to 3,666 feet due to the displaced thresholds and FAA published declared distances. The master plan recommends maintaining this the current landing distance for the safe operation of the airfield. Moving the threshold would functionally eliminate the use of the second runway by the designated design aircraft. This runway is important to the airport during regular conditions of winds from the northwest.

Comment: Approximately 15 members of the public provided comments regarding tree removal techniques and time of year of removals.

As noted in response to other comments and in the Final EA, prior to design and permitting a prepermitting meeting will be scheduled with the CTDEEP and other agencies as appropriate to determine the need for and extent of additional field work to be conducted to address critical habitat, state listed plants, threatened or endangered species (federal and state). In addition, more detail regarding the specific trees to be removed and the methodology used for their removal will be thoroughly coordinated with the CTDEEP and these agencies. As such, tree removal methodologies will proceed as directed in project permits.

These restrictions will address such elements as methods of tree cutting, trimming, and removal, as well as site access. In specific locations access by foot to removal areas and hand cutting of trees may be required to limit potential impacts. As stated previously tree removal activities will not occur between May 1 and September 30. Removal periods may be future defined following future biological surveys.

## Comment: 22 comments were received related to activity levels at the airport, airport flight patterns and the use of Runway 15-33.

**Response:** As stated in Chapter 2 of the Final EA "The purpose of this study, and any future actions as a result, is to promote safety by bringing the airport into compliance with Federal Aviation Administration (FAA) design standards and regulations regarding clear airspace." This is a common goal of any airport obstruction removal project. Specific to Groton-New London Airport the goal is remove those obstructions necessary to provide adequate safety, and to minimize impacts the Bluff Point State Park, the Coastal Reserve, and the Natural Area Preserve. This project will not impact the numbers of flights or annual operations or result in a change of "official" flight patterns related to the approach or use of specific runways. The proposed action is not dependent on the current or future activity level of the airport. Rather, as the operator a public use airport, CAA is required to work to clear obstructions to the identified airspace.

## Comment: 4 members of the public referenced the regulations limiting activities in Bluff Point State Park, Bluff Point Coastal Reserve and the Bluff Point Natural Reserve.

**Response:** Section 4.2 of the Final EA and EIE has been edited to include language describing the protections afforded the Bluff Point State Park, the Bluff Point Coastal Reserve and the Bluff Point Natural Area Preserve. In addition, a CTDEEP map delineating these areas has been included at the end of this appendix. The CAA does recognize the state regulations and protections afforded by the Reserve and Preserve, and will work to support their goals. However, the state regulation does not supersede or supplant the earlier established federal requirements to clear airspace or airport design standards.

In regard to the location, numbers of tree to be removed, and methodology for removal, these will be determined as part of the design and permitting phase. All work completed on behalf of the CAA will proceed as directed in the any project permits issued by CTDEEP.

## Comment: 22 comments were received expressing concern regarding tree removal methods including the potential for clearcutting.

**Response:** As noted in section 3.1.3 of both the draft and final EA, the preferred alternative is the Modified Obstruction Removal which is intended to eliminate the most critical obstructions while reducing the number of affected properties, total acreage, and therefore potential environmental impacts. Under the Modified Obstruction Removal both selective removal and tree removal techniques could be employed, however as illustrated in the maps in Appendix A of the Final EA, only selective thinning is under

consideration In the case of the Groton-New London Airport. Selective thinning is used in locations where fewer obstructions are present and/or sensitive environmental conditions are anticipated (e.g., coastal areas, wetlands, streams).

As noted in response to other comments and in the Final EA, prior to design and permitting a prepermitting meeting will be scheduled with the CTDEEP to address details regarding the specific trees to be removed and the methodology used for their removal. As such, tree removal methodologies will proceed as directed by project permits. Restrictions will address methods of cutting and access. In specific locations access by foot to removal areas and hand cutting of trees may be required to limit potential impacts.

Comment: Fifteen comments focused on invasive species control, potential replanting after project is complete and future trail maintenance.

**Response:** The required project permits also address invasive species control, particularly in wetlands. Replanting is not typically conducted as part of an obstruction removal project, but can be included if required for impact mitigation. Replanting may also be considered as part of a forest management plan created for the obstruction removal areas. All tree removal projects also include a plan and measures to repair areas (trails) damaged by equipment access or construction activities. Each of these considerations will be addressed in the design and permitting phase of the project.

Comment: Approximately 11 comments were received identifying concerns related to climate change impacts of removing trees within the project area.

**Response:** FAA and DEEP do not have specific policies or guidelines to evaluate the impacts of tree removal as it relates to climate change. FAA desktop reference 1050.1F addresses climate change as it relates to creation of CO2 emissions. At the federal and state level, climate change impacts are now being reviewed with respect to projects with developments and facilities that result in additional CO2 emissions. This project will remove tall trees, but will not produce CO2 emissions.

At the conclusion of this project, the remaining vegetation will continue to grow, including both trees and understory. As such, affected areas will remain vegetated and wooded, with substantially less environmental effect than if the project was to include pavement and development of the area. Federal standards to not address tree removal itself as a potential significant impact on climate change.

It is should be noted and as stated in the EA that this project addresses safety issues related to obstructions, it will not result in any change in airport operations.