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FEDERAL AVIATION ADMINISTRATION

EASTERN REGION  
AIRPORTS DIVISION

Short Environmental  
Assessment Form  
for  
AIRPORT DEVELOPMENT  
PROJECTS



Airport Name: Greenwood Lake Airport

Identifier: 4N1

Project Title: Removal of On-Airport Obstructions

This Environmental Assessment becomes a Federal document when evaluated, signed, and dated by the Responsible FAA official.

\_\_\_\_\_  
Responsible FAA Official

\_\_\_\_\_  
Date

## INSTRUCTIONS

**THIS FORM IS FOR LIMITED USE ON SPECIFIC TYPES OF PROJECTS. AIRPORT SPONSORS MUST CONTACT YOUR LOCAL AIRPORTS DISTRICT OFFICE (ADO) ENVIRONMENTAL PROTECTION SPECIALIST (EPS) BEFORE COMPLETING THIS FORM.**

**This form was prepared by FAA Eastern Region Airports Division and can only be used for proposed projects in this region.**

**Introduction:** This Short Environmental Assessment (EA), is based upon the guidance in Federal Aviation Administration (FAA) Orders 1050.1F – *Environmental Impacts: Policies and Procedures*, and the *Environmental Desk Reference for Airport Actions* and 5050.4B – *NEPA Implementing Instructions for Airport Actions*. These orders incorporate the Council on Environmental Quality's (CEQ) regulations for implementing the National Environmental Policy Act (NEPA), as well as US Department of Transportation environmental regulations, and other applicable federal statutes and regulations designed to protect the Nation's natural, historic, cultural, and archeological resources. The information provided by sponsors, with potential assistance from consultants, through the use of this form enables the FAA ADO offices to evaluate compliance with NEPA and the applicable special purpose laws.

**Use:** For situations in which this form may be considered, refer to the APPLICABILITY Section below. The local ADO has the final determination in the applicability of this form to a proposed Federal Action. Proper completion of the Form will allow the FAA to determine whether the proposed airport development project can be processed with a short EA, or whether a more detailed EA or EIS must be prepared. **If you have any questions on whether use of this form is appropriate for your project, or what information to provide, we recommend that you contact the environmental specialist in your local ADO.**

This Form is to be used in conjunction with applicable Orders, laws, and guidance documents, and in consultation with the appropriate resource agencies. Sponsors and their consultants should review the requirements of special purpose laws (See 5050.4B, Table 1-1 for a summary of applicable laws). Sufficient documentation is necessary to enable the FAA to assure compliance with all applicable environmental requirements. Accordingly, any required consultations, findings or determinations by federal and state agencies, or tribal governments, are to be coordinated, and completed if necessary, prior to submitting this form to FAA for review. Coordination with Tribal governments must be conducted through the FAA. We encourage sponsors to begin coordination with these entities as early as possible to provide for sufficient review time. Complete information will help FAA expedite its review. This Form meets the intent of a short EA while satisfying the regulatory requirements of NEPA for an EA. Use of this form acknowledges that all procedural requirements of NEPA or relevant special purpose laws still apply and that this form does not provide a means for circumvention of these requirements.

**Submittal:** When using this form for an airport project requesting *discretionary funding*, the documentation must be submitted to the local ADO by April 30<sup>th</sup> of the fiscal year preceding the fiscal year in which funding will be requested. When using this form for an airport project requesting *entitlement funding*, the documentation must be submitted to the local ADO by November 30<sup>th</sup> of the fiscal year in which the funding will be requested.

**Availability:** *An electronic version of this Short Form EA is available on-line at <http://www.faa.gov/airports/eastern/environmental/media/short-form-ea-final.docx>. Other sources of environmental information including guidance and regulatory documents are available on-line at [http://www.faa.gov/airports\\_airtraffic/airports/environmental](http://www.faa.gov/airports_airtraffic/airports/environmental).*

## APPLICABILITY

**Local ADO EPSs make the final determinations for the applicability of this form. If you have questions as to whether the use of this form is appropriate for your project, contact your local EPS BEFORE using this form.** Airport sponsors can consider the use of this form if the proposed project meets either Criteria 1 or Criteria 2, 3, and 4 collectively as follows:

- 1) It is normally categorically excluded (see paragraphs 5-6.1 through 5-6.6 in FAA Order 1050.1F) but, in this instance, involves at least one, but no more than two, extraordinary circumstance(s) that may significantly impact the human environment (see paragraph 5-2 in 1050.1F and the applicable resource chapter in the 1050.1F Desk reference).
- 2) The action is one that is not specifically listed as categorically excluded or normally requires an EA at a minimum (see paragraph 506 in FAA Order 5050.4B).
- 3) The proposed project and all connected actions must be comprised of Federal Airports Program actions, including:
  - (a) Approval of a project on an Airport Layout Plan (ALP),
  - (b) Approval of Airport Improvement Program (AIP) funding for airport development,
  - (c) Requests for conveyance of government land,
  - (d) Approval of release of airport land, or
  - (e) Approval of the use of Passenger Facility Charges (PFC).
- 4) The proposed project is not expected to have impacts to more than two of the resource categories defined in the 1050.1F Desk Reference.

**This form cannot be used when any of the following circumstances apply:**

- 1) The proposed action, including all connected actions, requires coordination with or approval by an FAA Line of Business or Staff Office other than the Airports Division. Examples include, but are not limited to, changes to runway thresholds, changes to flight procedures, changes to NAVAIDs, review by Regional Counsel, etc.
- 2) The proposed action, including all connected actions, requires coordination with another Federal Agency outside of the FAA.
- 3) The proposed action will likely result in the need to issue a Record of Decision.
- 4) The proposed action requires a construction period exceeding 3 years.

- 5) The proposed action involves substantial public controversy on environmental grounds.
- 6) The proposed project would have impacts to, or require mitigation to offset the impacts to more than two resources<sup>1</sup> as defined in the 1050.1F Desk Reference.
- 7) The proposed project would involve any of the following analyses or documentation:
  - a. The development of a Section 4(f) Report for coordination with the Department of the Interior,
  - b. The use of any Native American lands or areas of religious or cultural significance,
  - c. The project emissions exceed any applicable *de minimis* thresholds for criteria pollutants under the National Ambient Air Quality Standards, or
  - d. The project would require noise modeling with AEDT 2b (or current version).

If a project is initiated using this form and any of the preceding circumstances are found to apply, the development of this form must be terminated and a standard Environmental Assessment or Environmental Impact Statement (if applicable) must be prepared.

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<sup>1</sup> A resource is any one of the following: Air Quality; Biological Resources (including Threatened and Endangered Species); Climate; Coastal Resources; Section 4(f); Farmlands; Hazardous Materials, Solid Waste, and Pollution Prevention; Historical, Architectural, Archaeological, and Cultural Resources; Land Use; Natural Resources and Energy Supply; Noise and Noise-Compatible Land Use; Socioeconomics; Children's Environmental Health and Safety Risks; Visual Effects; Wetlands; Floodplains; Surface Waters; Groundwater; Wild and Scenic Rivers; and Cumulative Impacts.

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**Complete the following information:****Project Location**

Airport Name: Greenwood Lake Airport Identifier: 4N1  
Airport Address: 126 Airport Road  
City: Township of West Milford County: Passaic State: NJ Zip: 07480

**Airport Sponsor Information**

Point of Contact: NJDOT – Shadman Mohammad  
Address: 1035 Parkway Ave, PO Box 600  
City: Trenton State: NJ Zip: 08625  
Telephone: 609-963-2095 Fax:  
Email: Shadman.Mohammad@dot.nj.gov

**Evaluation Form Preparer Information**

Point of Contact: Scott Parker  
Company (if not the sponsor): Jacobs Engineering  
Address: 412 Mt. Kemble Avenue  
City: Morristown State: NJ Zip: 07960  
Telephone: 201-787-7981 Fax: 1-973-267-3555  
Email: scott.parker@jacobs.com

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**1. Introduction/Background:**

Greenwood Lake Airport is in the Township of West Milford, Passaic County, New Jersey, and operated by the New Jersey Department of Transportation (NJDOT). NJDOT is obligated to maintain a safe path for air navigation by maintaining the height of trees within the runway approaches.

The airport has one runway designated as Runway 6/24. The runway is approximately 60 feet wide with no displaced thresholds, stop-ways, clearways or declared distances. The airport currently has two helipads, but subsequent to completion of the transient apron pavement replacement project (completion anticipated in May 2025) the airport will maintain a single helipad. Total runway length is approximately 3,471 feet. Runway 24 has a Precision Approach Path Indicator with a glide angle of 3.5 degrees. Runway 6 has minimum climb gradient of 260 feet per nautical mile. The airport and surrounding private property are located within the Highlands Preservation Area, an area recognized by the State of New Jersey as possessing significant environmental and ecological value. The activity is a maintenance activity and will be repeated over time to ensure the safe operation of Greenwood Lake Airport. It is expected that the project will be exempt from any Highlands permitting requirements, however, a Highlands Applicability Determination will be submitted for NJDEP's concurrence. Tree removal portions of Phase 1 of the on-airport obstruction removal is expected to take place between November 16, 2025 and March 30, 2026. Tree removal portions of the future phase is expected to take place sometime after November 16, 2026.

This EA has been prepared in compliance with NEPA's regulations, as amended (40 CFR 1500-1508 for FAA and in accordance with Federal Aviation Administration (FAA) Orders 1050.1F, Environmental Impacts: Policies and Procedures, and 5050.4B, National Environmental Policy Act (NEPA) Implementing Instructions for Airport Actions, to analyze and disclose the potential

environmental effects of the Proposed Action.

The federal action is that a grant-in-aid was issued by the FAA to fund the environmental study necessary to determine the impacts associated with the proposed obstruction removal at Greenwood Lake Airport. It should also be noted that in the future Greenwood Lake may request additional federal grant-in-aid funding from the FAA through the Airport Improvement Program (AIP) and/or approval of an application to use Passenger Facility Charges (PFCs) associated with the actual removal of the identified obstructions.

**2. Project Description** (List and clearly describe ALL components of project proposal including all connected actions). **Attach a map or drawing of the area with the location(s) of the proposed action(s) identified:**

A total of 271 obstructions have been identified on airport property, adversely affecting aircraft safety. Of these obstructions, eight (8) were identified as man-made objects, such as poles or buildings. The remaining 263 obstructions are associated with a total of 189 individual trees. Some of these trees have multiple branches or multiple trunks each representing a separate obstruction penetrating the surface. The eight (8) man-made obstructions are not being removed as part of this project as these obstructions are parts of the infrastructure critical to the operation of the airport. The airport operates under special instructions to pilots directing their approach and departure procedures and patterns to avoid conflict with these obstructions.

Removal and/or topping of the naturally occurring obstructions (the trees) is required to maintain runway approach and departure surfaces free of obstruction to the extent possible. The project is anticipated to be conducted in multiple phases. Phase 1 includes the removal/topping of 93 tree obstructions and the Future Phase(s) includes the removal/topping of 168 tree obstructions. **Figure 1** shows the locations of the obstructions, including the trees requiring attention. Symbology in the figure represents location of obstructions and not the actual number of obstructions.

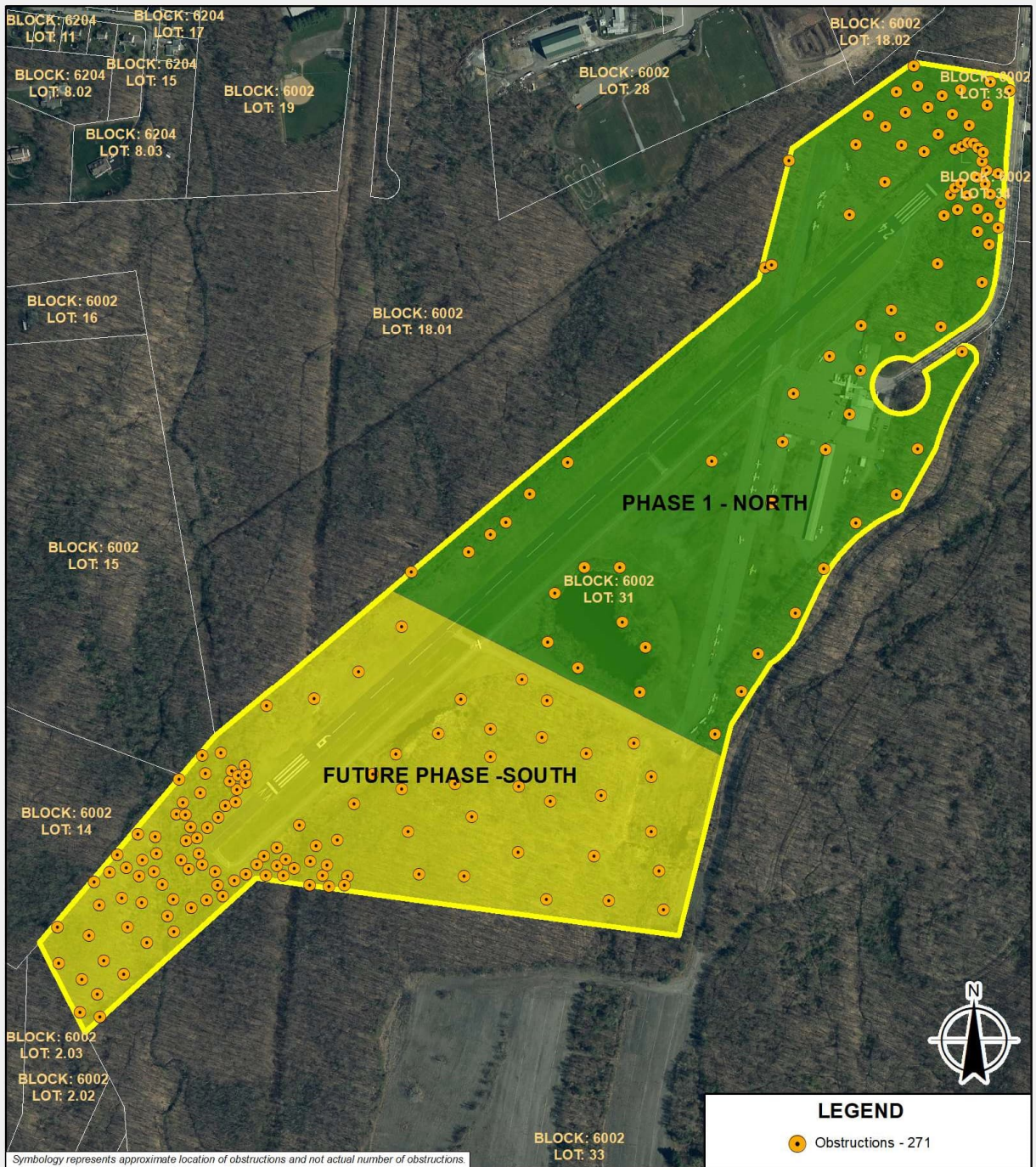
The removal/topping of the trees is anticipated to be conducted by arborists accessing this area on foot and by using hand-held equipment (e.g., chainsaws, handsaws). Machinery will not be used due to the topography of the property and issues with access. If necessary, for the Future Phase, a temporary metal plate may be used to cross Morsetown Brook. Tree stumps will remain in place for both phases and no grubbing will occur, minimizing impacts to ground surfaces. It is anticipated that all vegetative debris will remain on site unless any state or federal regulatory requirements mandate that the debris be removed (e.g. in a floodway). If debris removal is required, the contractor will remove debris on foot and by using hand-held equipment except for the north end (Phase 1) where a low-pressure mini skid steer tracked machine with a log grapple or brush grapple may be utilized. This machinery will assist in removal of debris while minimizing ground disturbance. The contractor would access the area at the north end of the property from Airport Road. Using the described methods, impacts will be minimized and are expected to be *de minimis*.



It is anticipated that this work will be done during late fall/winter months in order to abide by the timing restriction prohibiting tree removal/topping from March 15 through November 15 (see Biological Resources section). Below is a discussion of the existing conditions and potential impacts regarding wetlands, floodplains and riparian zones, surface waters, archaeological resources, and threatened and endangered species habitat.

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	<b>GREENWOOD LAKE AIRPORT OBSTRUCTION REMOVAL</b>		
	<b>NEW JERSEY DEPARTMENT OF TRANSPORTATION</b>	<b>PHASE MAP</b> <b>BLOCK: 6002 LOT: 31</b>	
SOURCE: NJOGIS AERIAL 2020	Scale: 1:6,000 1" = 500'		<b>JACOBS</b> <small>412 Mt. Kemble Avenue P.O. Box 1936 Morristown, NJ 07960</small>
			<b>FIGURE-1</b>



### 3. Project Purpose and Need:

The purpose of the project is to enhance air safety by removing obstructions and to follow FAA requirements to operate airports safely and efficiently. FAA Advisory Circular 150/5300-13B Tables 3-3 and 3-5 describe the critical airspace surfaces relevant to the projection of navigable airspace to each runway end at GWL.

Trees and other man-made structures located on the airport property have been found to be obstructions to the 20:1 approach surface and 40:1 departure surface for the Runway 06 and Runway 24 ends. A total of 263 tree obstructions have been identified on airport property as obstructions adversely affecting aircraft safety. All obstructions are physically located on airport property. Removal/topping of these obstructions is required to maintain runway approach and departure surfaces free of obstruction.

### 4. Describe the affected environment (existing conditions) and land use in the vicinity of project:

The GWL airport property is approximately 115 acres in size, surrounded by State of New Jersey owned public property, municipal property, residential, and industrial land uses. The property is located within a Special Economic District (SED) and an Airport Hazard Zone (AHZ).

The Township of West Milford has incorporated standards for an Airport Safety Zone in compliance with the New Jersey Department of Transportation, Air Safety and Zoning Act of 1983. The Township has also adopted stricter standards for control of these areas under New Jersey's Municipal Land Use Law. Residential properties of at least 4 acres in size are allowed in the Airport Safety Zone compared with the State of New Jersey law that allows residences of 3 acres or greater within the Airport Safety Zone.

The Air Safety and Zoning Act of 1983 sets forth standards for land use adjacent to airports, that municipalities in the State of New Jersey must implement. The Act (Section 16:62-3.2 Methodology used to delineate Airport Safety Zones) requires that an Airport Safety Zone must be established for each runway, and that each Airport Safety Zone “*consist of a Runway Subzone, two Runway End Subzones, and two Clear Zones.*” These zones establish minimum standards for the control of airport and aeronautical hazards that may cause dangerous conditions.

The property surrounding the operating airport runway area includes deciduous wooded uplands, deciduous wooded freshwater wetlands, scrub-shrub wetlands, maintained grass, herbaceous vegetation, streams, and associated floodplains.

Areas on airport property where trees will be removed are generally characterized as successional growth in upland and wetland areas. Total canopy area of the trees to be individually removed within the airport property totals approximately 3 acres. The dominant species are a mix of deciduous trees including red maple (*Acer rubrum*), American elm (*Ulmus americana*), green ash (*Fraxinus pennsylvanica*), black cherry (*Prunus serotina*), gray birch (*Betula populifolia*), aspen (*Populus tremuloides*), and red oak (*Quercus rubra*). These species have an approximate diameter at breast height (dbh) of 12-18 inches.

Some of the 263 tree obstructions identified are located within freshwater wetlands and within the New Jersey Department of Environmental Protection (NJDEP) 150-foot wetland transition area buffers. Some of the obstructions in Phase 1 are located within the riparian zone and FEMA 500-year Flood Zone of the Hewitt Brook tributary. Some of the obstructions in the Future Phase are in the riparian zone and flood hazard area (FEMA 100-year Flood Zone [Zone AE]) of the Morsetown Brook on airport property. There are 10 obstructions identified within the floodway of Morestown Brook. Some of the obstructing trees may also be located within the transition areas of wetlands and riparian zones of streams that are located off-airport property. Survey of the obstructions has already been completed with no additional obstruction survey required.

See tables below for the number of trees within the riparian zones, FEMA Flood zones, freshwater wetlands, and wetland transition areas:

NJDOT - GWL Airport Obstruction Removal	
On Airport Total Tree Removal	263
Breakdown of Tree Removal*	
Total Tree Removal in <b>Riparian Zone</b>	80
Total Tree Removal in <b>Freshwater Wetlands</b>	37
Total Tree Removal in <b>Transition Area</b>	145
Total Tree Removal in FEMA 100 Year Flood Zone – AE (based on current FEMA Mapping)	6
Total Tree Removal in <b>Floodway</b>	10
Total Tree Removal in FEMA 500 Year Flood Zone - 0.25 Annual Chance	1

\*Breakdown total may be more than overall total because a tree can be located in more than one regulated area.

The following table is a summary of the obstructions/trees within the Phase 1 regulated areas.

NJDOT - GWL Airport Obstruction Removal Phase 1 -101 Total	
On Airport Total Tree Removal - Phase 1	93
Phase 1*	
Total Tree Removal in <b>Riparian Zone</b> - Phase 1	7
Total Tree Removal in <b>Freshwater Wetlands</b> - Phase 1	7
Total Tree Removal in <b>Transition Area</b> – Phase 1	54
Total Tree Removal in <b>Freshwater Wetlands and Transition Areas</b> - Phase 1	61
Total Tree Removal in <b>FEMA 500 Year Flood Zone</b> - 0.25 Annual Chance – Phase 1	1
Man Made Obstructions – Phase 1	8

\*Breakdown total may be more than overall total because a tree can be located in more than one regulated area.

In Phase 1, there are no trees in any FEMA 100-year flood zone based on current FEMA mapping.

The following table is a summary of the obstructions/trees within the Future Phase regulated areas.

NJDOT - GWL Airport Obstruction Removal Future Phase – 170 Total	
On Airport Total Tree Removal - Future Phase	170
Future Phase*	
Total Tree Removal in <b>Riparian Zone</b> - Future Phase	73
Total Tree Removal in <b>Freshwater Wetlands</b> - Future Phase	30
Total Tree Removal in <b>Transition Area</b> - Future Phase	91
Total Tree Removal in <b>Freshwater Wetlands and Transition Areas</b> - Future Phase	121
Total Tree Removal in <b>FEMA 100 Year Flood Zone</b> -AE (based on current FEMA mapping) – Future Phase	6
Total Tree Removal in <b>Floodway</b> – Future Phase	10
Man Made Obstructions – Future Phase	0

\*Breakdown total may be more than overall total because a tree can be located in more than one regulated area.

As stated previously, the eight (8) man-made obstructions are not being removed as part of this project as these obstructions are parts of the infrastructure critical to the operation of the airport. The airport operates under special instructions to pilots directing their approach and departure procedures and patterns to avoid conflict with these obstructions.

**5. Alternatives to the Project: Describe any other reasonable actions that may feasibly substitute for the proposed project, and include a description of the “No Action” alternative. If there are no feasible or reasonable alternatives to the proposed project, explain why (attach alternatives drawings as applicable):**

## Alternatives

To achieve the purpose of the project, obstructions need to be removed from the airport runways. There are two alternatives that will achieve this purpose. These alternatives include:

1. Remove the obstructions from the runways or
2. Relocate or realign the runways from the obstructions.

Out of these two alternatives, the relocation or realignment of the airport runways is not feasible because there is not enough land to provide an alternate route. Therefore, Alternative 1, the removal of the obstructions around the runways, is the only feasible and reasonable alternative that achieves the project purpose. Three options to remove the obstructions include the following:

1. Removal of the trees by cutting them at the base and leaving stumps in place.
2. Topping of the trees that have been identified as being obstructions.
3. A combination of removal of trees by cutting them at the base and leaving stumps in place and topping some trees, depending on regulatory agency requirements.

## No Action Alternative

The No Action Alternative would not fulfill the goal and objective of removing any obstructions and, therefore, would not achieve the purpose and need of the project. Furthermore, air safety would not

be enhanced because the trees would continue to grow and become an even worse obstruction. By allowing the trees to grow, the airport would no longer be in compliance with FAA regulations.

**6. Environmental Consequences – Special Impact Categories (refer to the Instructions page and corresponding sections in 1050.1F, the 1050.1F Desk Reference, and the Desk Reference for Airports Actions for more information and direction. Note that when the 1050.1F Desk Reference and Desk Reference for Airports Actions provide conflicting guidance, the 1050.1F Desk Reference takes precedence. The analysis under each section must comply with the requirements and significance thresholds as described in the Desk Reference).**

## **(A) AIR QUALITY**

(1) Will the proposed project(s) cause or create a reasonably foreseeable emission increase? Prepare an air quality assessment and disclose the results. Discuss the applicable regulatory criterion and/or thresholds that will be applied to the results, the specific methodologies, data sources and assumptions used; including the supporting documentation and consultation with federal, state, tribal, or local air quality agencies.

The FAA Aviation Emissions and Air Quality Handbook, Version 4 provides guidance on the assessment of potential air quality impacts attributable to a proposed project. Figure 4-1 (Air Quality Assessment Process for a federal action) in the manual shows the general steps needed to complete an air quality assessment under NEPA.

Step 1: Determine if the Federal Action falls within an exemption to General Conformity

The proposed project does not fall within an exemption to General Conformity based upon the actions listed in Table 4-1. List of exempt actions most commonly associated with FAA Federal Actions of the manual.

Step 2: Does the Federal Action qualify as Presumed to Conform?

The proposed project does not fall within an exemption to General Conformity based upon the actions listed in Table 4-2. List of Presumed to Conform Actions of the manual.

Step 3: Determine if the Federal Action is in an EPA-designated nonattainment area or maintenance area

The project site is located within the 8-Hour Ozone Non-attainment area as well as within the PM<sub>2.5</sub> Maintenance Area.

The EPA Greenbook<sup>69</sup> contains a current listing of nonattainment and maintenance areas for each criteria pollutant. This assessment should be made for each criteria pollutant. In other words, there are effectively six air quality reviews (one for each criteria pollutant) associated with each Federal Action. For any pollutant for which the area is classified as being in nonattainment or maintenance, further analysis of that pollutant should follow the guidelines contained in Section 8, unless the Federal Action has been deemed exempt or presumed to conform.

Step 4: Evaluate if Attainment Screening Criteria is exceeded

Following are the four (4) Screening Parameters evaluated to determine if the proposed project could cause (or contribute to) changes in airport emissions.

- Project Variable A (Aircraft Operations). Increase in number of aircraft Landings and Takeoffs (LTOs) as a result of the Federal Action.

The proposed project will not result in an increase in aircraft LTOs at the airport

- Project Variable B (Aircraft Taxi Time). Increase in delay or changes to the taxi-in and -out times and/or taxi distances by on-ground aircraft as a result of the Federal Action.

The proposed project will not result in an increase in taxi aircraft LTOs at the airport taxi-in and -out times and/or taxi distances by on-ground aircraft.

- Project Variable C (GAVs). Changes in the Vehicle Miles Traveled (VMT) from GAV trips on airport property driven by on-road vehicles that occur as a result of a Federal Action.

The proposed project will not result in an increase in the Vehicle Miles Traveled (VMT) from GAV trips on airport property driven by on-road vehicles

- Project Variable D (Construction Equipment and/or GSE). Number of pieces of construction equipment that are active and working on the Federal Action, and/or the number of pieces of GSE that will be brought to the airport and operated as a direct result of the Federal Action. This does not include GSE increases due to increases in aircraft operations.

The work involves the use of handheld equipment (e.g., chainsaws, handsaws), due to which a temporary increase in localized emissions may occur. Additional methods may include the use of a low-pressure mini skid steer tracked machine with a log grapple or brush grapple to remove vegetative debris, if needed, for the north end (Phase 1), which may also have a temporary increase in localized emissions. These short-term temporary emissions are considered to be negligible and below *de minimis* thresholds.

The manual has a flow chart (Figure 4.1) wherein if the answer to the question “*Will the proposed project(s) cause or create a reasonably foreseeable emission increase*” is “NO”, a qualitative air quality assessment is to be prepared. As the removal of trees will not result in an increase in airport activity, it is reasonable to conclude that the project will not result in more than a temporary *de minimis* increase in emissions. With no long term increase in emissions, degradation of existing air quality is not expected.

Removal of the total of 263 tree obstructions is conservatively anticipated to require approximately 60 working days during which up to 1 to 2 chainsaws will be operated intermittently throughout the work day. As a majority of the trees that are deep into wooded areas are expected to be felled and left in place, a skid steer vehicle may potentially be intermittently used in Phase 1.

2) Are there any project components containing unusual circumstances, such as emissions sources in close proximity to areas where the public has access or other considerations that may warrant



further analysis? If no, proceed to (c); if yes, an analysis of ambient pollutant concentrations may be necessary. Contact your local ADO regarding how to proceed with the analysis.

The clearing of the obstructions will occur on the airport property and will not be near areas where the public has access or other considerations that would warrant further analysis.

(3) Is the proposed project(s) located in a nonattainment or maintenance area for the National Ambient Air Quality Standards (NAAQS) established under the Clean Air Act?

The project is located in Passaic County, NJ, which is included in the EPA-designated New York-Northern New Jersey-Long Island, NY-NJ-CT non-attainment area. This area is designated as Serious nonattainment for the 8-hour ozone standard and maintenance for PM-2.5.

4) Are all components of the proposed project, including all connected actions, listed as exempt or presumed to conform (See FRN, vol.72 no. 145, pg. 41565)? If yes, cite exemption and go to (B) Biological Resources. If no, go to (e).

The proposed improvements are listed as exempt within FRN, vol. 72 no 145, pg. 41565. Specifically, the removal of obstructions falls under the *Routine Maintenance and Repair Activities [40 CFR, 93.153(c)(2)(iv)]* and general landscaping, erosion control and grading.

(5) Would the net emissions from the project result in exceedances of the applicable *de minimis* threshold (reference 1050.1F Desk Reference and the *Aviation Emissions and Air Quality Handbook* for guidance) of the criteria pollutant for which the county is in non-attainment or maintenance? If no, go to (B) Biological Resources. If yes, stop development of this form and prepare a standard Environmental Assessment.

Not Applicable

## **(B) BIOLOGICAL RESOURCES**

Describe the potential of the proposed project to directly or indirectly impact fish, wildlife, and plant communities and/or the displacement of wildlife. Be sure to identify any state or federal species of concern (Candidate, Threatened or Endangered).

1) Are there any candidate, threatened, or endangered species listed in or near the project area?

Yes, threatened, and endangered species exist within the project vicinity. The NJDEP Landscape Project Data Version 3.4 Skylands GIS information (see **Figure 2**) was used and the NJDEP Natural Heritage Program was contacted (see **Attachment 1**). Additionally, the US Fish and Wildlife Service's (USFWS) Information for Planning and Consultation (IPaC) search was performed and reviewed for the project area (see **Attachment 2**). The NJDEP Natural Heritage Grid information was reviewed and did not identify any rare plant species on site. The following species were listed in the project area and the project area does contain suitable habitat for some of these species.

### **State of New Jersey**

- Barred Owl (*Strix varia*) – Threatened (Breeding sighting and Non-breeding sighting)
- Bobcat (*Lynx rufus*) – Threatened (Live individual sighting, on road and physical evidence)

- Timber rattlesnake (*Crotalus horridus horridus*) – Endangered (Occupied habitat)
- Red shouldered hawk (*Buteo lineatus*) - Endangered (Breeding sighting)
- Wood turtle (*Glyptemys insculpta*) – Threatened (Occupied habitat)
- Golden-winged Warbler (*Vermivora chrysoptera*) – Endangered (Breeding sighting)
- Northern Goshawk (*Accipiter gentilis*) – Endangered (Breeding sighting)
- Indiana bat (*Myotis sodalis*) – Endangered
- Eastern Small-footed Myotis - (*Myotis leibii*) - Endangered
- Golden-winged Warbler - (*Vermivora chrysoptera*) - Endangered
- Little Brown Myotis – (*Myotis lucifugus*) - Endangered
- Eastern Copperhead – (*Agkistrodon contortrix*) – Threatened
- Tricolored bat (*Perimyotis subflavus*) – Endangered
- Northern Long-eared bat (*Northern myotis*) (*Myotis septentrionalis*) – Endangered (Active season sighting)
- Bog Turtle (*Glyptemys muhlenbergii*) – Endangered

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- Indiana bat (*Myotis sodalis*) – Endangered
- Northern Long-eared bat (*Northern myotis*) (*Myotis septentrionalis*) – Endangered (Active season sighting)
- Tricolored bat (*Perimyotis subflavus*) – Proposed Endangered
- Bog Turtle (*Glyptemys muhlenbergii*) – Threatened
- Small Whorled Pogonia (*Isotria medeoloides*) – Threatened
- Monarch Butterfly (*Danaus plexippus*) – Proposed Threatened

Additionally, West Milford Township has been identified as having hibernation and maternity occurrences for the Indiana Bat and Northern Long-eared bat.

Endangered Species Act (ESA) Section 7 consultation was conducted with the USFWS. The USFWS concurred that the proposed project may affect but is not likely to adversely affect the species under its jurisdiction (letter dated 4/3/24 from USFWS to FAA) (**see Attachment 2**) based on the following:

Based on a desktop review of the project area conducted by USFWS, the wetlands within and immediately adjacent to the project are classified as forested wetland and scrub/shrub wetlands. These wetlands are not anticipated to support suitable bog turtle habitat due to the absence of any substantial emergent wetland area within the wetland complex. Therefore, no adverse effects to bog turtle are anticipated.

Although the project is located within the spring staging and fall swarming buffers for two known northern long-eared bat hibernacula, and within potential summer habitat for the Indiana bat, the landscape surrounding the airport has a high percent forest cover, so the reduction of suitable bat habitat is anticipated to have insignificant effects on the Indiana or northern long-eared bat. Additionally, the tree removal will be seasonally restricted such that tree removal can only occur outside of the bat active season (*i.e.*, no tree removal during April 1- November 15) to minimize disturbance to bats.

The USFWS' species distribution model for small whorled pogonia indicates that suitable habitat may potentially be present within a small portion of the Future Phase project area. However, based on the species distribution model's relatively low confidence that suitable small whorled pogonia habitat is present, the small area of overlap between the model and the project area, and the species' low percent occupancy rates even within areas of high-quality habitat, the USFWS concurs that small whorled pogonia is unlikely to be present within the project area. As per the letter from the FAA to the Service, dated March 27, 2024, the project proponent (NJDOT) has agreed to conduct a survey for small whorled pogonia habitat within the Future Phase project area prior to initiating construction. As this species typically flowers from mid-May to mid-June, the survey will be conducted during this time frame prior to any future phase tree removal. If suitable habitat for the species is documented, the FAA will reinitiate consultation with the USFWS to determine if additional survey efforts or conservation measures are appropriate. Potential conservation measures to avoid/minimize impacts to small whorled pogonia, if found, may include:

- Marking the location of each plant in the field with 4 stakes to delineate a 2 ft x 2 ft square around the plant. If deer herbivory is prevalent at the airport, small wire fences/cages or similar herbivore-exclusion devices may be placed over/around each plant and anchored into place to serve as plant markers and herbivore deterrents. Plant markers must be placed during the growing season while small whorled pogonia plants are in flower or in fruit (typically May 15 – July 20).
- Small whorled pogonia is a long-lived perennial species that can remain dormant underground for several years before reemerging above ground when environmental conditions are right. To the extent the project schedule allows, the USFWS recommends conducting annual surveys for small whorled pogonia and marking plant locations for multiple years in a row prior to beginning project construction.
- The project activities will be modified to the extent possible to avoid or minimize disturbance to small whorled pogonia and its habitat. This may include actions like modifying access paths to avoid trampling small whorled pogonia plants or their habitat, trimming/topping of trees within habitat (as opposed to felling the entire tree), lowering tree debris to the ground with ropes to avoid accidentally crushing plants when working within habitat, removing all cut vegetation debris from within small whorled pogonia habitat, etc.
- If the project involves work in the immediate vicinity of the small whorled pogonia plants, the USFWS may recommend having a plant monitor on-site during work within habitat to enforce conservation measures and handle any unforeseen circumstances that may arise.

The tricolored bat may occur within the action area. This project is not likely to jeopardize the continued existence of the tricolored bat; therefore, ESA Section 7(a)(4) conference is not required for this proposed Endangered species. Once a final rule to list the tricolored bat is published and goes into effect, consultation and prohibitions against unpermitted "take" of the species will apply. The FAA will then assess the project's potential impacts to tricolored bats and reinitiate consultation with the USFWS if project activities 'may affect' the species. The monarch butterfly was designated a candidate for ESA listing in December 2020. Although candidate species receive no substantive or procedural protection

under the ESA prior to listing, the USFWS encourages consideration of these species in project planning. The monarch range includes all of New Jersey, including small habitat patches within developed areas. The USFWS encourages adherence to best management practices for avoiding impacts to the monarch and improving habitat where possible.

Subsequent to the USFWS consultation letter, the monarch butterfly was proposed as a Federally threatened species by USFWS on December 12, 2024. The proposed tree removal/trimming will not jeopardize the continued existence of the species, therefore, conference with the USFWS is not required.

Due to the nature of the proposed project (tree removal/trimming), it is not likely that monarchs will be impacted, and opportunities for improving habitat would not be available. However, if this determination changes, a plan following USFWS best management practices will be developed to avoid impacts to the species or its habitat. These BMPs could include such actions as:




- Planting native milkweed and nectar plants
- Minimizing pesticide use
- Maintaining habitat using conservation-timed mowing

Standard threatened and endangered species timing restrictions for freshwater wetlands and endangered species habitats will apply. Tree removal/topping timing restrictions will be adhered to as to not impact any of the above listed species as required by NJDEP and the US Fish and Wildlife Service. timing restrictions may include:

- Barred owl – March 1 to July 15<sup>th</sup>.
- Red shouldered hawk - March 1 to July 15<sup>th</sup>.
- Indiana bat – No removal/topping of trees from April 1<sup>st</sup> to November 15<sup>th</sup>.
- Northern long eared bat – No removal/topping of trees from April 1st to November 15<sup>th</sup>.
- Golden-winged Warbler – May 1 to July 20<sup>th</sup>.





	<b>GREENWOOD LAKE AIRPORT OBSTRUCTION REMOVAL</b>		
<b>NEW JERSEY DEPARTMENT OF TRANSPORTATION</b>		<b>THREATENED &amp; ENDANGERED SPECIES</b>	
SOURCE: NIOGIS AERIAL 2020, LANDSCAPE PROJECT DATA SKYLANDS - V3.3	Scale: 1:6,000 1" = 500' 	 412 Mt. Kemble Avenue P.O. Box 1936 Morristown, NJ 07960	<b>FIGURE-2</b>



(2) Will the action have any long-term or permanent loss of unlisted plants or wildlife species?

Although other species that may nest or roost in the trees that will be removed/topped may need to relocate, timing restrictions for tree removal/topping will be implemented to avoid direct impact during the nesting season of many species and no significant adverse impacts are anticipated.

(3) Will the action adversely impact any species of concern or their habitat?

The species of concern include the following:

- Blue-headed Vireo (*Vireo solitarius*)
- Cooper's Hawk (*Accipiter cooperii*)
- Great Blue Heron (*Ardea herodias*)
- Hooded Warbler (*Wilsonia citrina*)
- Red-shouldered Hawk (*Buteo lineatus*) – Non-Breeding Status
- Veery (*Catharus fuscescens*)
- Eastern Whip-poor-will (*Caprimulgus vociferus*)
- Wood Thrush (*Hylocichla mustelina*)
- Worm-eating Warbler (*Helmitheros vermivorum*)
- Eastern Box Turtle (*Terrapene carolina carolina*)
- Northern Copperhead (*Agkistrodon contortrix mokasen*)
- Big Brown bat (*Eptesicus fuscus*)
- Eastern Red bat (*Lasiurus borealis*)
- Cerulean Warbler (*Setophaga cerulea*)
- Spotted Salamander (*Ambystoma maculatum*)

Due to the significant number of additional trees and habitat located in the vicinity of the project area, there are no significant impacts anticipated. Tree removal/topping timing restrictions for bat species and migratory birds will also benefit the above additional species.

(4) Will the action result in substantial loss, reduction, degradation, disturbance, or fragmentation of native species habitats or populations?

No, the tree removal/topping proposed represents a minimal amount of tree removal as compared to the surrounding area and therefore does not represent a substantial loss.

(5) Will the action have adverse impacts on a species' reproduction rates or mortality rate or ability to sustain population levels?

No. The project site is heavily wooded, and no tree removal will be undertaken during threatened or endangered species breeding seasons. Further, it is anticipated that the canopy area reduction from a removed tree will be replaced as adjacent tree canopies expand into the newly opened areas.

(6) Are there any habitats, classified as critical by the federal or state agency with jurisdiction, impacted by the proposed project?

No critical habitats have been identified in the area.

(7) Would the proposed project affect species protected under the Migratory Bird Act? (If **Yes**, contact the local ADO).

No, even though the proposed action will include the removal/topping of 263 trees, timing restrictions will be implemented to avoid directly impacting species protected under the MBTA: March 15 to September 15. Although bird species that require trees for nesting will have to relocate to other nearby forested areas, extensive forested habitat will remain in place.

If the answer to any of the above is “Yes”, consult with the USWFS and appropriate state agencies and provide all correspondence and documentation.

## **(C) CLIMATE**

(1) Would the proposed project or alternative(s) result in the increase or decrease of emissions of Greenhouse gases (GHG)? If neither, this should be briefly explained and no further analysis is required and proceed to (D) Coastal Resources.

Based on the proposed action of removal/topping of tree obstructions in the vicinity of the runway, no increase or decrease in emissions of Greenhouse gases is anticipated other than short-term temporary emissions. As detailed in Section 6(A) Air Quality above, the work involves the use of handheld equipment (e.g., chainsaws, handsaws), due to which *de minimis* temporary increase in localized emissions may occur. Removal of the total of 263 tree obstructions is conservatively anticipated to require approximately 60 working days during which up to 1 to 2 chainsaws will be operated intermittently throughout the work day. As a majority of the trees that are deep into wooded areas are expected to be felled and left in place, a skid steer vehicle may potentially be used intermittently for Phase 1. These short-term temporary emissions are considered to be negligible and below *de minimis* thresholds.

(2) Will the proposed project or alternative(s) result in a net decrease in GHG emissions (as indicated by quantitative data or proxy measures such as reduction in fuel burn, delay, or flight operations)? A brief statement describing the factual basis for this conclusion is sufficient.

Based on the proposed action of removal/topping of tree obstructions in the vicinity of the runway, no increase or decrease in Greenhouse gases is anticipated other than short-term temporary emissions. As detailed in Section 6(A) Air Quality above, the work involves the use of handheld equipment (e.g., chainsaws, handsaws), due to which *de minimis* temporary increase in localized emissions may occur. Removal of the total of 263 tree obstructions is conservatively anticipated to require approximately 60 working days during which up to 1 to 2 chainsaws will be operated intermittently throughout the work day. As a majority of the trees that are deep into wooded areas are expected to be felled and left in place, a skid steer vehicle may potentially be used intermittently for Phase 1. These short-term temporary emissions are considered to be negligible and below *de minimis* thresholds. No change in emissions or greenhouse gas emissions is anticipated as the project will not result in any change in airport operations of LTOs.

(3) Will the proposed project or alternative(s) result in an increase in GHG emissions? Emissions should be assessed either qualitatively or quantitatively as described in 1050.1F Desk Reference or Aviation Emissions and Air Quality Handbook.

Based on the proposed action of removal/topping of tree obstructions in the vicinity of the runway, no increase or decrease in Greenhouse gases is anticipated other than short-term temporary emissions. As detailed in Section 6(A) Air Quality above, the work involves the use of handheld equipment (e.g., chainsaws, handsaws), due to which de minimis temporary increase in localized emissions may occur. Removal of the total of 263 tree obstructions is conservatively anticipated to require approximately 60 working days during which up to 1 to 2 chainsaws will be operated intermittently throughout the work day. As a majority of the trees that are deep into wooded areas are expected to be felled and left in place, a skid steer vehicle may potentially be used intermittently for Phase 1. These short-term temporary emissions are considered to be negligible and below de minimis thresholds. No change in emissions or greenhouse gas emissions is anticipated as the project will not result in any change in airport operations of LTOs.

## **(D) COASTAL RESOURCES**

(1) Would the proposed project occur in a coastal zone, or affect the use of a coastal resource, as defined by your state's Coastal Zone Management Plan (CZMP)? Explain.

No, Greenwood Lake Airport is not located in a coastal zone.

(2) If **Yes**, is the project consistent with the State's CZMP? (If applicable, attach the sponsor's consistency certification and the state's concurrence of that certification).

See response to question D(1) above.

(3) Is the location of the proposed project within the Coastal Barrier Resources System? (If **Yes**, and the project would receive federal funding, coordinate with the FWS and attach record of consultation).

The project is not located within the Coastal Barrier Resources System

## **(E) SECTION 4(f) RESOURCES**

(1) Does the proposed project have an impact on any publicly owned land from a public park, recreation area, or wildlife or waterfowl refuge of national, state, or local significance, or an historic site of national, state, or local significance? Specify if the use will be physical (an actual taking of the property) or constructive (i.e. activities, features, or attributes of the Section 4 (f) property are substantially impaired.) If the answer is “No,” proceed to (F) Farmlands.

No, the removal/topping of the trees will only be on the Greenwood Lake Airport property and will not impact the Long Pond Iron Works State Park or West Milford Twp., Edgar Drive open space (See **Figure 3**). A significant amount of trees will remain in this wooded area after the selective trimming/topping of trees, and there will not be a change in the visual character/buffer.

(2) Is a *De Minimis* impact determination recommended? If “yes”, please provide; supporting documentation that this impact will not substantially impair or adversely affect the activities, features, or attributes of the Section 4 (f) property; a Section 106 finding of “no adverse effect” if historic properties are involved; any mitigation measures; a letter from the official with jurisdiction concurring with the recommended *de minimis* finding; and proof of public involvement. (See Section 5.3.3 of 1050.1F Desk Reference). If “No,” stop development of this form and prepare a standard Environmental Assessment.

The airport is not a 4(f) resource. The removal/topping of the trees will only be on the Greenwood Lake Airport property and will not impact the Long Pond Iron Works State Park or West Milford Twp., Edgar Drive open space (See Figure 3). A significant amount of trees will remain in this wooded area after the selective trimming/topping of trees, and there will not be a change in the visual character/buffer. Accordingly, there will be no impacts to a Section 4(f) resource, either significant or *de minimis*, as a result of the project.

## **(F) FARMLANDS**

Does the project involve acquisition of farmland, or use of farmland, that would be converted to non-agricultural use and is protected by the Federal Farmland Protection Policy Act (FPPA)? (If **Yes**, attach record of coordination with the Natural Resources Conservation Service (NRCS), including form AD-1006.)

No, the proposed action is solely located on the Greenwood Lake Airport property, which is not zoned as farmland.

## **(G) HAZARDOUS MATERIALS, SOLID WASTE, AND POLLUTION PREVENTION**

(1) Would the proposed project involve the use of land that may contain hazardous materials or cause potential contamination from hazardous materials? (If Yes, attach record of consultation with appropriate agencies). Explain.

The project is not anticipated to encounter any hazardous materials, solid waste, or any type of pollution. The project will not result in any ground disturbance. Trees will be cut near the base with the stumps left in place.

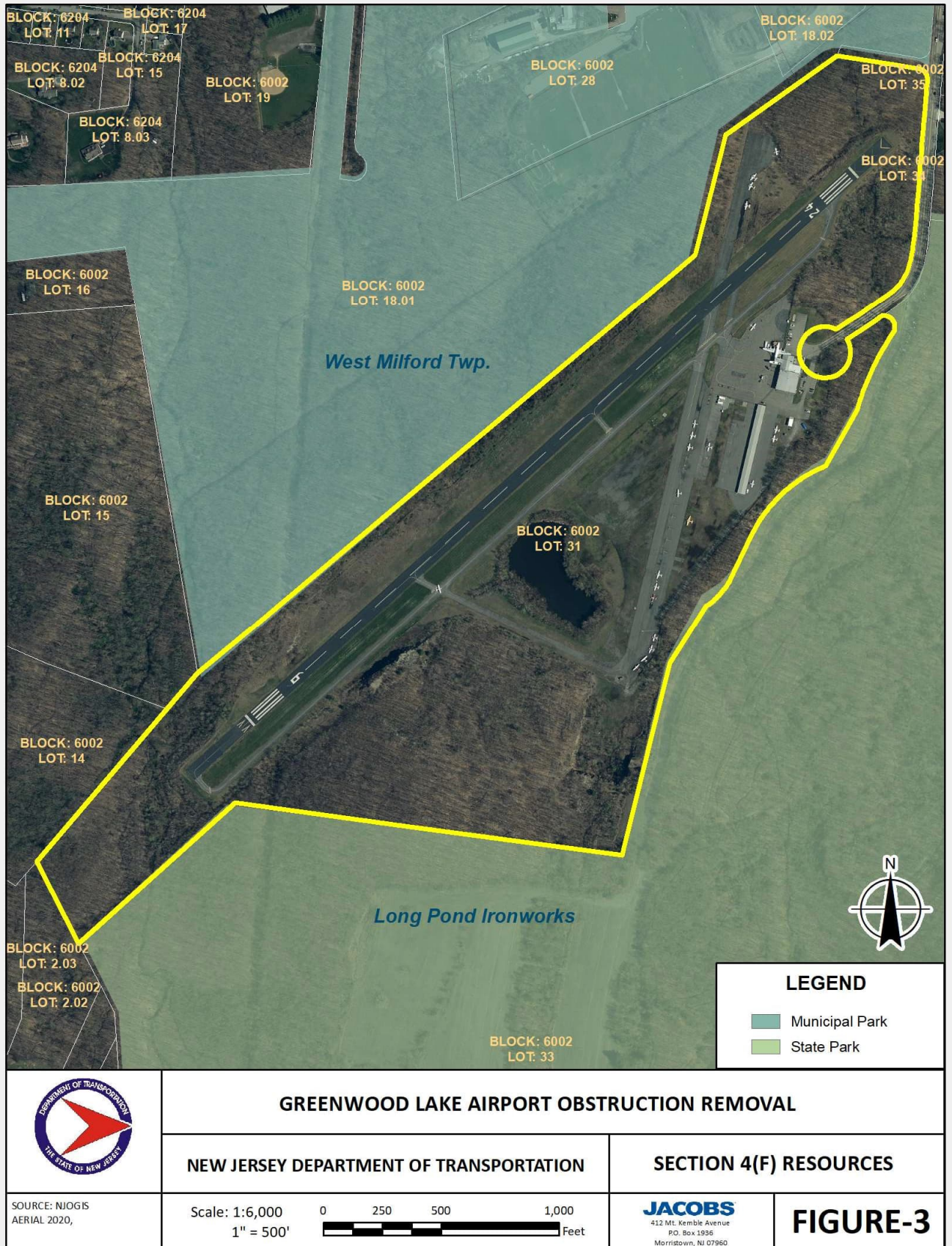
(2) Would the operation and/or construction of the project generate significant amounts of solid waste? If **Yes**, are local disposal facilities capable of handling the additional volumes of waste resulting from the project? Explain.

No, it is anticipated that any trees cut down will remain on site and not require removal. However, in cases where vegetative debris may need to be removed (e.g., in a floodway), debris may be relocated outside of the floodway or removed from the site and disposed of properly.

(3) Will the project produce an appreciable different quantity or type of hazardous waste? Will there be any potential impacts that could adversely affect human health or the environment?

The project will not produce any type of hazardous waste. The project includes selective removal of trees across the airport property. No ground disturbance will result from the cutting of the trees and no materials will be brought onto the property.







## **(H) HISTORIC, ARCHITECTURAL, ARCHEOLOGICAL, AND CULTURAL RESOURCES**

(1) Describe any impact the proposed project might have on any properties listed in, or eligible for inclusion in the National Register of Historic Places. (Include a record of your consultation and response with the State or Tribal Historic Preservation Officer (S/THPO)).

The Area of Potential Effects (APE) is defined as the geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties if they exist in the project area. Based on the project scope of work, the proposed APE for direct and indirect effects is limited to the property parcel (Block 6002/Lot 31). (See **Figure 1**.)

A desktop review utilizing the project scope of work and the NJ Cultural Resources Geographic Information System (CRGIS) Online Viewer LUCY was conducted to identify historic properties within the project's APE. This review indicated that there are no previously identified historic properties eligible for listing or listed on the National Register of Historic Places (NRHP) present within the Archaeology or Architectural APEs.

Due to the limited scope of the project, and as per preliminary guidance from the New Jersey State Historic Preservation Office (NJ SHPO) that NJDOT received via a telephone conversation on February 28, 2024, an intensive-level architectural survey is not required based on the scope of work. Furthermore, due to the remaining tree coverage that will remain as a buffer, no indirect effects to above-ground resources are anticipated. Per guidance provided by NJ SHPO via a telephone conversation on March 4, 2024 to NJDOT, an archaeological survey would not be required for the proposed project provided methods for avoiding ground disturbance are implemented. As described in the above Project Description section, the work will be completed using methods to minimize impacts to ground surfaces and, therefore, archaeological survey is not required.

The NJ SHPO concurred that there are no historic properties affected within the project's area of potential effects (NJ SHPO concurrence stamp dated 4/3/24 on 3/27/24 letter from FAA to NJ SHPO). (See **Attachment 3**). No further Section 106 consultation is required unless project plans change, or additional resources are discovered during project implementation.

(2) Describe any impacts to archeological resources as a result of the proposed project. (Include a record of consultation with persons or organizations with relevant expertise, including the S/THPO, if applicable).

As mentioned above, there are no previously identified historic properties eligible for listing or listed on the National Register of Historic Places (NRHP) present within the Archaeology or Architectural APEs. Per guidance provided by NJ SHPO via a telephone conversation on March 4, 2024 to NJDOT, an archaeological survey would not be required for the proposed project provided methods for avoiding ground disturbance are implemented. As described in the above Project Description section, the work will be completed using methods to minimize impacts to ground surfaces and, therefore, archaeological survey is not required. The NJ SHPO concurred that there are no historic properties affected within the project's area of potential effects (see above).

## **(I) LAND USE**

(1) Would the proposed project result in other (besides noise) impacts that have land use ramifications, such as disruption of communities, relocation of residences or businesses, or impact natural resource areas? Explain.

No, disruption of communities, relocation of residences or businesses are anticipated. Natural resource impacts are discussed in the other applicable sections of this document.

(2) Would the proposed project be located near or create a wildlife hazard as defined in FAA Advisory Circular 150/5200-33, "Wildlife Hazards On and Near Airports"? Explain.

No, removal or topping of trees will not create a wildlife hazard.

(2) Include documentation to support sponsor's assurance under 49 U.S.C. § 47107 (a) (10), of the 1982 Airport Act, that appropriate actions will be taken, to the extent reasonable, to restrict land use to purposes compatible with normal airport operations.

The proposed action is for the continued use of the airport and does not include any changes to the present zoning and land uses of the airport property as well as the surrounding area. In fact, the proposed action is needed to ensure the continued safe use of the airport.

## **(J) NATURAL RESOURCES AND ENERGY SUPPLY**

What effect would the project have on natural resource and energy consumption? (Attach record of consultations with local public utilities or suppliers if appropriate)

Cutting of the trees will involve the use of gasoline powered chain saws, and a skid steer vehicle may potentially be used intermittently for Phase 1 for removal of the felled trees that are reasonably accessible. Trees located deep into heavily wooded areas will be left in place after cutting.

## **(K) NOISE AND NOISE-COMPATIBLE LAND USE**

Will the project increase noise by DNL 1.5 dB or more for a noise sensitive area that is exposed to noise at or above the DNL 65 dB noise exposure level, or that will be exposed at or above the DNL 65 dB level due to a DNL 1.5 dB or greater increase, when compared to the no action alternative for the same timeframe? (Use AEM as a screening tool and AEDT 2b as appropriate. See FAA Order 1050.1F Desk Reference, Chapter 11, or FAA Order 1050.1F, Appendix B, for further guidance). Please provide all information used to reach your conclusion. If yes, contact your local ADO.

The proposed improvements only include the removal, topping, and/or trimming of trees and will not result in an increase in noise. Temporary short-term noise impacts may occur through the use of equipment; however, this impact will be negligible and *de minimis*. Please refer to Project Description section for the proposed type of equipment.

## **(L) SOCIOECONOMICS and CHILDREN’S HEALTH and SAFETY RISKS<sup>2</sup>**

(1) Would the project cause an alteration in surface traffic patterns, or cause a noticeable increase in surface traffic congestion or decrease in Level of Service?

No, the removal/topping of trees will not impact traffic patterns. Since the preferred approach will be to access the area on foot and leave the fallen material in place, there is not expected to be numerous construction vehicles used for this project. Please see the project description for more information.

(2) Would the project cause induced, or secondary, socioeconomic impacts to surrounding communities, such as changes to business and economic activity in a community; impact public service demands; induce shifts in population movement and growth, etc.?

The project involves cutting of trees that represent obstructions to arriving and/or departing aircraft. No change in the type of volume of activity at the airport will result from this project. Therefore, no socioeconomic impacts are expected.

(4) Would the project have the potential to lead to a disproportionate health or safety risk to children?

The project involves cutting of trees that represent obstructions to arriving and/or departing aircraft. No change in the type of volume of activity at the airport will result from this project. Access to the airport air-side where the trees to be cut are located is access-restricted. Therefore, no potential health or safety risks to children or adults are expected.

If the answer is “YES” to any of the above, please explain the nature and degree of the impact. Also provide a description of mitigation measures which would be considered to reduce any adverse impacts.

## **(M) VISUAL EFFECTS INCLUDING LIGHT EMISSIONS**

(1) Would the project have the potential to create annoyance or interfere with normal activities from light emissions for nearby residents?

No, the number of trees recommended to be topped or removed are located on Greenwood Lake Airport property. The tree removal/topping is limited and a sufficient wooded buffer will remain to provide a screen to the surrounding properties.

(2) Would the project have the potential to affect the visual character of nearby areas due to light emissions?

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<sup>2</sup> This Socioeconomics discussion does not contain analysis of Environmental Justice impacts. Although FAA’s applicable environmental orders, FAA Order 1050.1F and 5050.4B, include Environmental Justice as an impact category, they have not yet been updated to reflect that the underlying Executive Orders from which they derived their legal authority (E.O 12898 and E.O 14096), have been revoked. *See* E.O. 14173, *Ending Illegal Discrimination and Restoring Merit-Based Opportunity* (Jan. 21, 2025).

(2) Would the project have the potential to affect the visual character of nearby areas due to light emissions?

The project involves the selective removal/topping of trees in wooded areas. The selective tree removal will not result in any light emissions or alter the visibility of light currently emitted by the airport operations.

(3) Would the project have the potential to block or obstruct views of visual resources?

The project involves the selective removal/topping of trees in wooded areas. No construction is included in this project. The selective tree removal will not result in any change or obstruction of visual resources in the area.

If the answer is “YES” to any of the above, please explain the nature and degree of the impact using graphic materials. Also provide a description of mitigation measures which would be considered to reduce any adverse impacts.

## **(N) WATER RESOURCES (INCLUDING WETLANDS, FLOODPLAINS, SURFACE WATERS, GROUNDWATER, AND WILD AND SCENIC RIVERS)**

### **(1) WETLANDS**

(a) Does the proposed project involve federal or state regulated wetlands or non-jurisdictional wetlands? (Contact USFWS or appropriate state natural resource agencies if protected resources are affected) (Wetlands must be delineated using methods in the US Army Corps of Engineers 1987 Wetland Delineation Manual. Delineations must be performed by a person certified in wetlands delineation Document coordination with the resource agencies).

Yes, both phases of the project involve cutting vegetation in State of New Jersey regulated freshwater wetland and freshwater wetland transition areas. An initial wetland delineation was performed in 2017 by Amy S. Greene Environmental Consultants, Inc. and a supplemental delineation was performed in 2021 by Jacobs. Environmental professionals from Jacobs conducted a freshwater wetland/state open water investigation/delineation to identify, delineate, and evaluate any potential wetlands/state open waters within approximately 150 feet of the proposed Greenwood Lake Airport project limits. The delineations were conducted in accordance with the three-parameter approach described by the methodologies defined in the 1989 interagency *Federal Manual for Identifying and Delineating Jurisdictional Wetlands* as is required by NJDEP. See **Attachment 4**, which includes these two delineation reports and **Figures 4 and 5**, which show the wetland delineations.

A Pre-application meeting was held with NJDEP on May 29, 2024 to discuss the applicable permitting and requirements for the proposed project. Please refer to the below Permits section.

The property surrounding the operating airport runway area includes deciduous wooded uplands, deciduous wooded freshwater wetlands, scrub-shrub wetlands, maintained grass, herbaceous vegetation, streams, and associated floodplains. Vernal pool habitat occurs in the vicinity of Runway 24 end in Phase 1.

Due to the presence of threatened and endangered species, it is likely the existing wetland areas will be classified as exceptional resource value wetlands by NJDEP, with an associated 150-foot

transition area buffer.

The total number of trees to be removed in freshwater wetlands is 37, and 145 trees will be removed in freshwater wetland transition areas.

The following table is a summary of the trees within the Phase 1 regulated Freshwater Wetlands and Transition areas.

NJDOT - GWL Airport Obstruction Removal Phase 1 -101 Total	
Phase 1	
Total Tree Removal in <b>Freshwater Wetlands</b> - Phase 1	7
Total Tree Removal in <b>Transition Area</b> - Phase 1	54
Total Tree Removal in <b>Freshwater Wetlands and Transition Areas</b> - Phase 1	61

The following table is a summary of the trees within the Future Phase regulated Freshwater Wetlands and Transition areas.

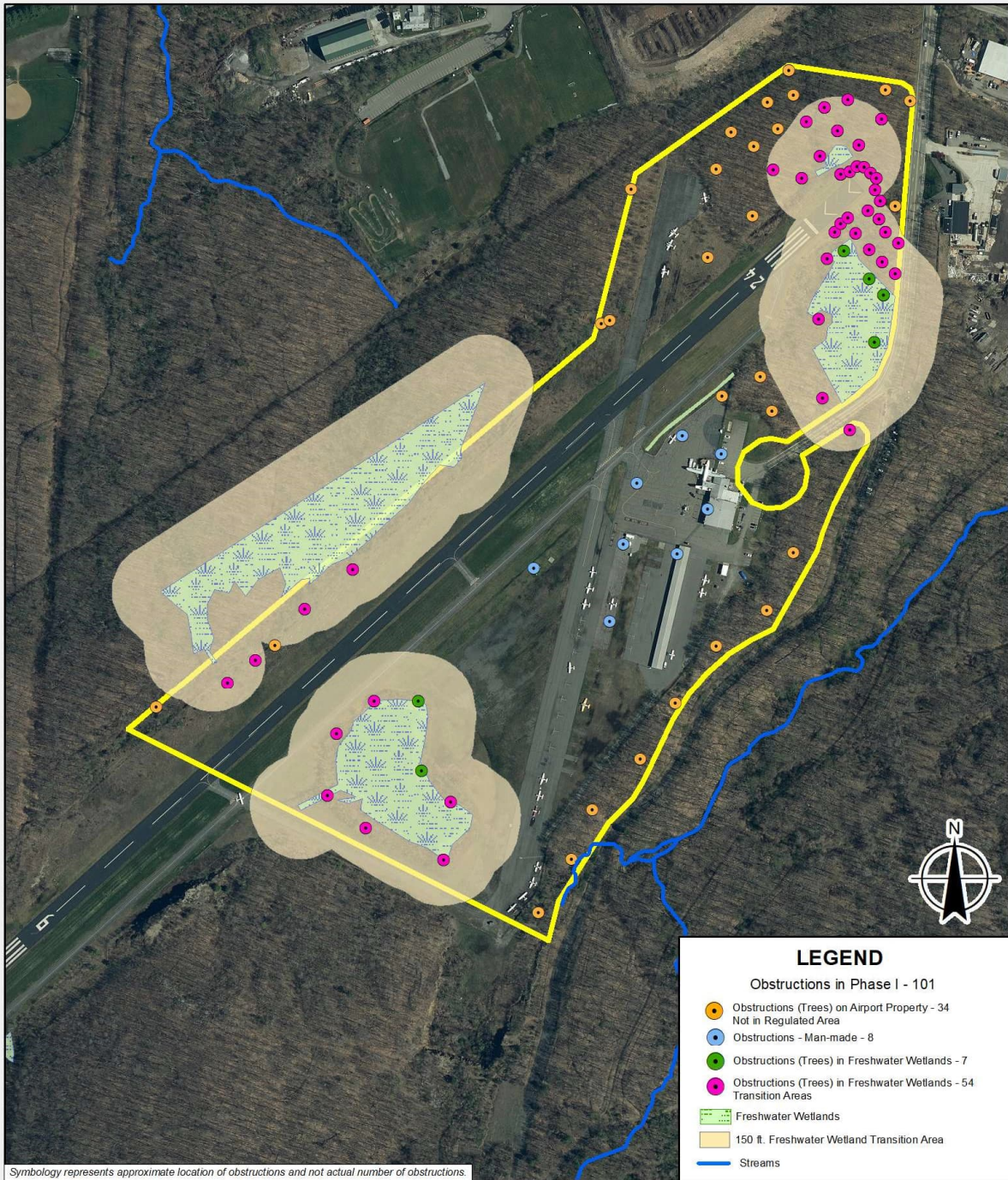
NJDOT - GWL Airport Obstruction Removal Future Phase – 170 Total	
Future Phase	
Total Tree Removal in <b>Freshwater Wetlands</b> - Future Phase	30
Total Tree Removal in <b>Transition Area</b> - Future Phase	91
Total Tree Removal in <b>Freshwater Wetlands and Transition Areas</b> - Future Phase	121


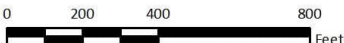

Two streams are located within or adjacent to the Greenwood Lake Airport property. The two streams are:

1. Morsetown Brook: Freshwater (FW)2- Non-Trout NJDEP Surface Water Quality Classification (SWQC) (in Future Phase).
2. Hewitt Brook tributary: FW2-Trout Production Category 1 NJDEP SWQC (in Phase 1).

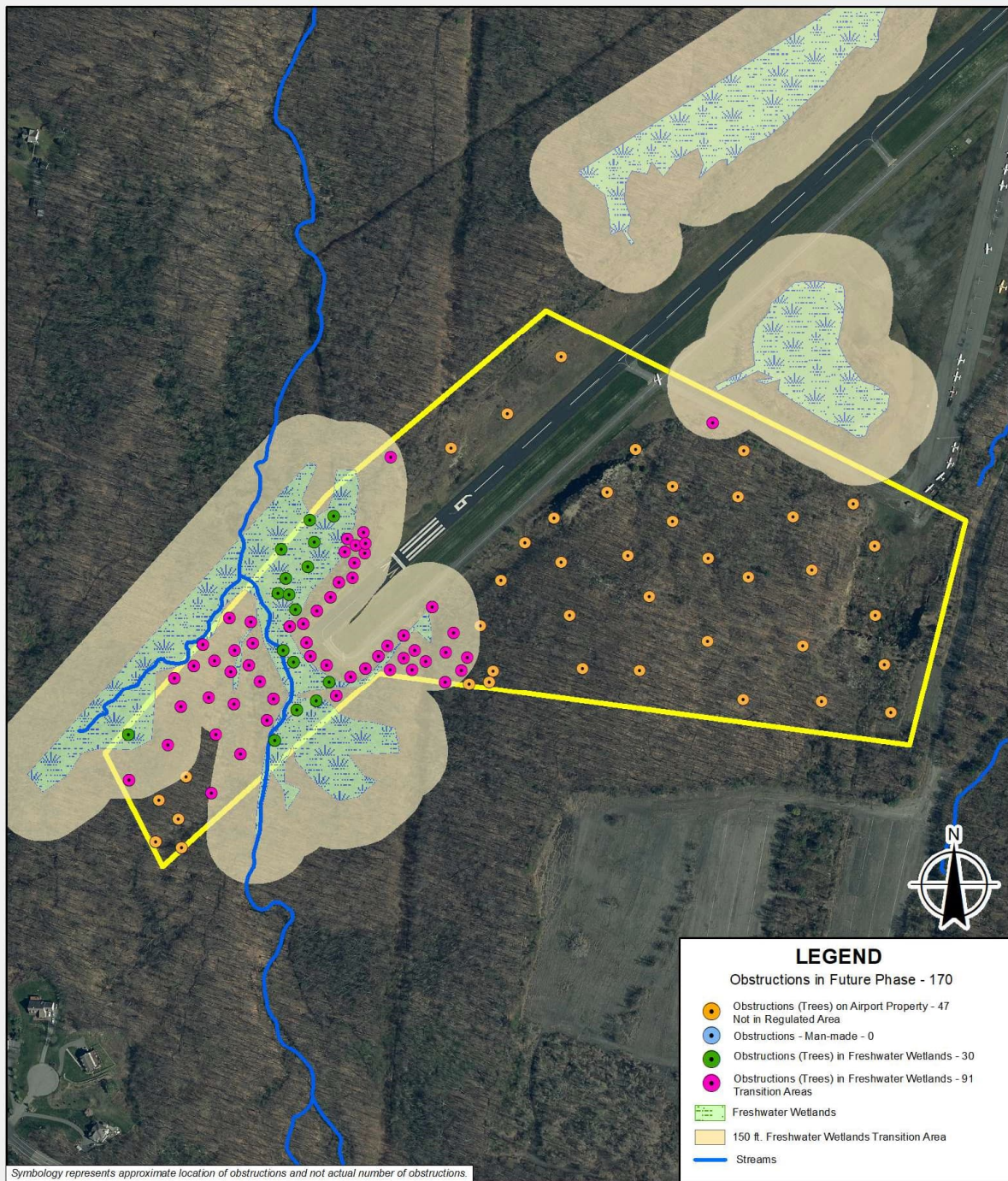
After review and analysis of the Vernal Pool Location, NJDEP Landscape Project GIS layer, Version 3.4, two (2) vernal pools were identified within the project area of Phase 1, adjacent to the Runway 24 end near Airport Road. One of the two locations was identified as a certified vernal pool location and the other was a potential vernal pool location. After field review, these vernal pools did not exist in their mapped locations adjacent to the active airport runway. These vernal pool locations may exist on the adjacent airport property. Minimal, if any impact to these areas is anticipated due to the removal/topping of selected trees.




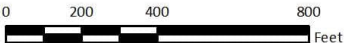
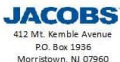


	<b>GREENWOOD LAKE AIRPORT OBSTRUCTION REMOVAL</b>		
	<b>NEW JERSEY DEPARTMENT OF TRANSPORTATION</b>	<b>FRESHWATER WETLANDS AND TRANSITION AREAS - PHASE I</b>	
SOURCE: NJGIS AERIAL 2020, JACOBS	Scale: 1:4,800 1" = 400'		 412 Mt. Kemble Avenue P.O. Box 1936 Morristown, NJ 07960
			<b>FIGURE-4</b>





Symbology represents approximate location of obstructions and not actual number of obstructions.

	<b>GREENWOOD LAKE AIRPORT OBSTRUCTION REMOVAL</b>	
	<b>NEW JERSEY DEPARTMENT OF TRANSPORTATION</b>	<b>FRESHWATER WETLANDS AND TRANSITION AREAS - FUTURE PHASE</b>
SOURCE: NJOGIS AERIAL 2020, JACOBS	Scale: 1:4,800 1" = 400'	
		<b>FIGURE-5</b>

(b) If yes, does the project qualify for an Army Corps of Engineers General permit? (Document coordination with the Corps).

The project would not be required to obtain a permit from the US Army Corps of Engineers. The project is in a portion of West Milford Twp., Passaic County that is under the jurisdiction of the New Jersey Department of Environmental Protection (NJDEP) Division of Land Resource Protection. NJDEP has adopted the federal wetlands Section 404 program from the US Army Corps of Engineers and thus is the lead regulating agency in this part of the state. The state protects wetlands and transition areas under the New Jersey Freshwater Wetlands Protection Act (N.J.S.A. 13:9B). An application will be submitted to the NJDEP for a Freshwater Wetlands General Permit No. 9 - Airport sight line clearing.

(c) If there are wetlands impacts, are there feasible mitigation alternatives? Explain.

Not Applicable because the proposed work is to cut trees at the base, top, or trim tree limbs that are above the ground surface. No filling of wetland areas is planned or will occur. The NJDEP Freshwater Wetlands General Permit No. 9 does not require mitigation as a condition of the permit provided that tree stumps will remain in place and low impact machinery and equipment will be used to minimize disturbance to regulated areas. Tree removal methods will comply with the GP No. 9 requirements. Please see Section (N)(1)(a) above and the Project Description.

(d) If there are wetlands impacts, describe the measures to be taken to comply with Executive Order 11990, Protection of Wetlands.

Based on the removal of trees, an NJDEP General Permit No. 9 is anticipated for the project. The project will minimize harm to wetland areas selectively cutting the tree obstructions to maintain safe runway approach and departure surfaces. Please see Section (N)(1)(c) above and Project Description section for information regarding methods used to minimize impacts.

## (2) FLOODPLAINS

(a) Would the proposed project be located in, or would it encroach upon, any 100-year floodplains, as designated by the Federal Emergency Management Agency (FEMA)?

Yes, in the Future Phase, the 100-year flood zone (Flood Hazard Area- Zone AE) of the Morsetown Brook (FW2- Non-Trout – NJDEP SWQS Classification) will be encroached upon in order to remove the six (6) identified tree obstructions. The flood zone is approximately between 70 to 100 ft wide located on the airport's southwest Runway 6 side. Additionally in the Future Phase, the floodway within the Morsetown Brook will have ten (10) tree obstructions removed/topped.

NJDOT - GWL Airport Obstruction Removal Phase 1 -101 Total	
On Airport Total Tree Removal - Phase 1	93
Phase 1	
Total Tree Removal in <b>Riparian Zone</b> - Phase 1	7
Total Tree Removal in <b>FEMA 500 Year Flood Zone</b> - 0.25 Annual Chance – Phase 1	1
Man Made Obstructions – Phase 1	8



<b>NJDOT - GWL Airport Obstruction Removal Future Phase – 170 Total</b>	
On Airport Total Tree Removal - Future Phase	170
<b>Future Phase</b>	
Total Tree Removal in <b>Riparian Zone</b> - Future Phase	73
Total Tree Removal in <b>FEMA 100 Year Flood Zone</b> -AE (based on current FEMA mapping) – Future Phase	6
Total Tree Removal in <b>Floodway</b> – <b>Future Phase</b>	10
Man Made Obstructions – Future Phase	1

(b) If Yes, would the project cause notable adverse impacts on natural and beneficial floodplain values as defined in Paragraph 4.k of DOT Order 5620.2, *Floodplain Management and Protection*?

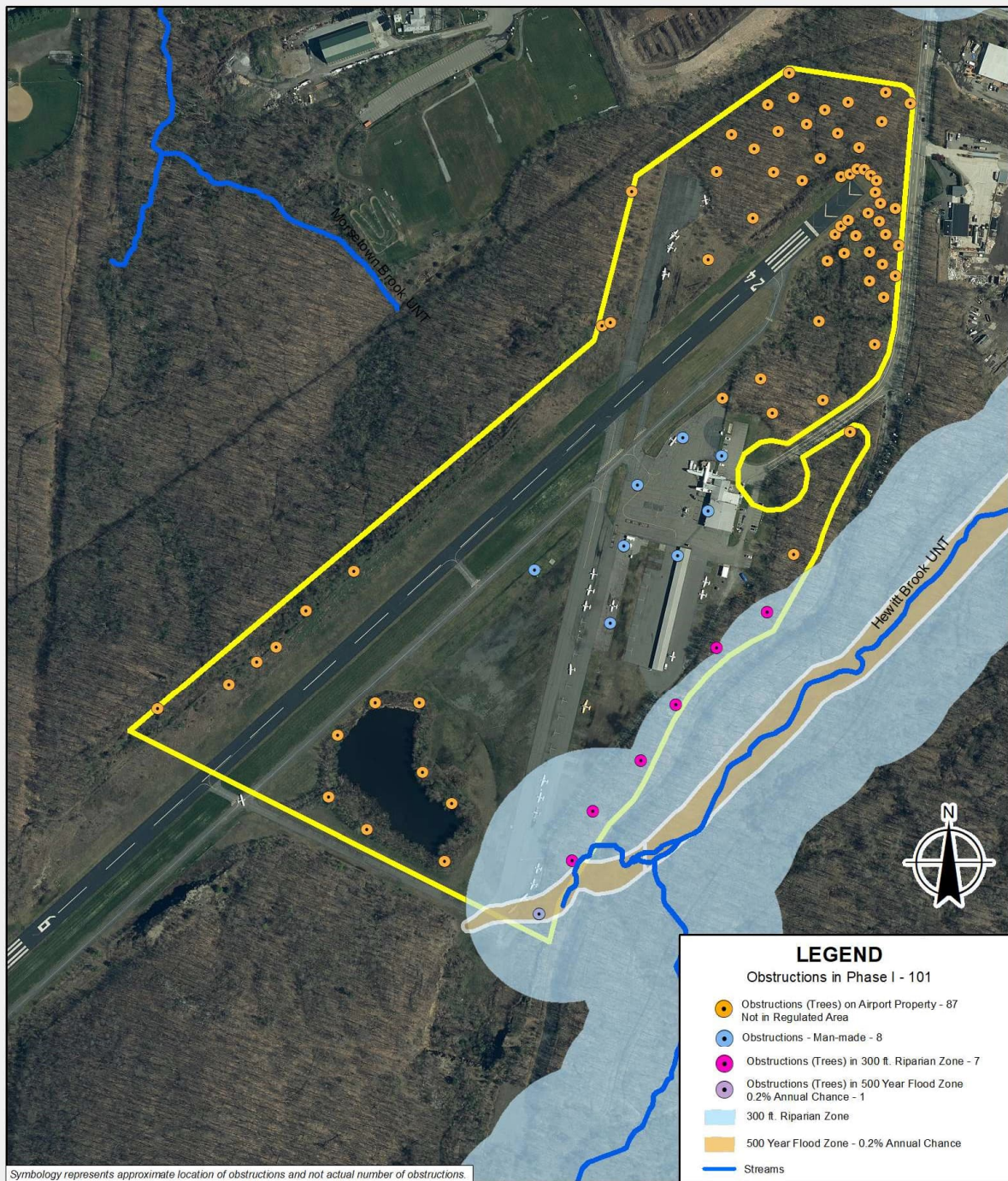
No, the project proposes the removal/topping of trees that pose safety concerns that may interfere with airport operations. Removal/topping of selected trees would occur in a very small and limited area of a regulated floodplain. If necessary, for the Future Phase, a temporary metal plate may be used to cross Morsetown Brook. Please see Project Description section for information regarding methods used to minimize impacts.


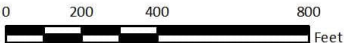
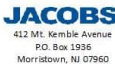
If Yes, attach the corresponding FEMA Flood Insurance Rate Map (FIRM) and describe the measures to be taken to comply with Executive Order 11988, including the public notice requirements.

**Figures 6 and 7** shows the floodplain within the project area. Within the 100-year floodplain, the tree obstructions would be cut at the base/trimmed/topped and vegetative debris will remain in place. Felled trees or vegetated debris in the floodway will be removed.

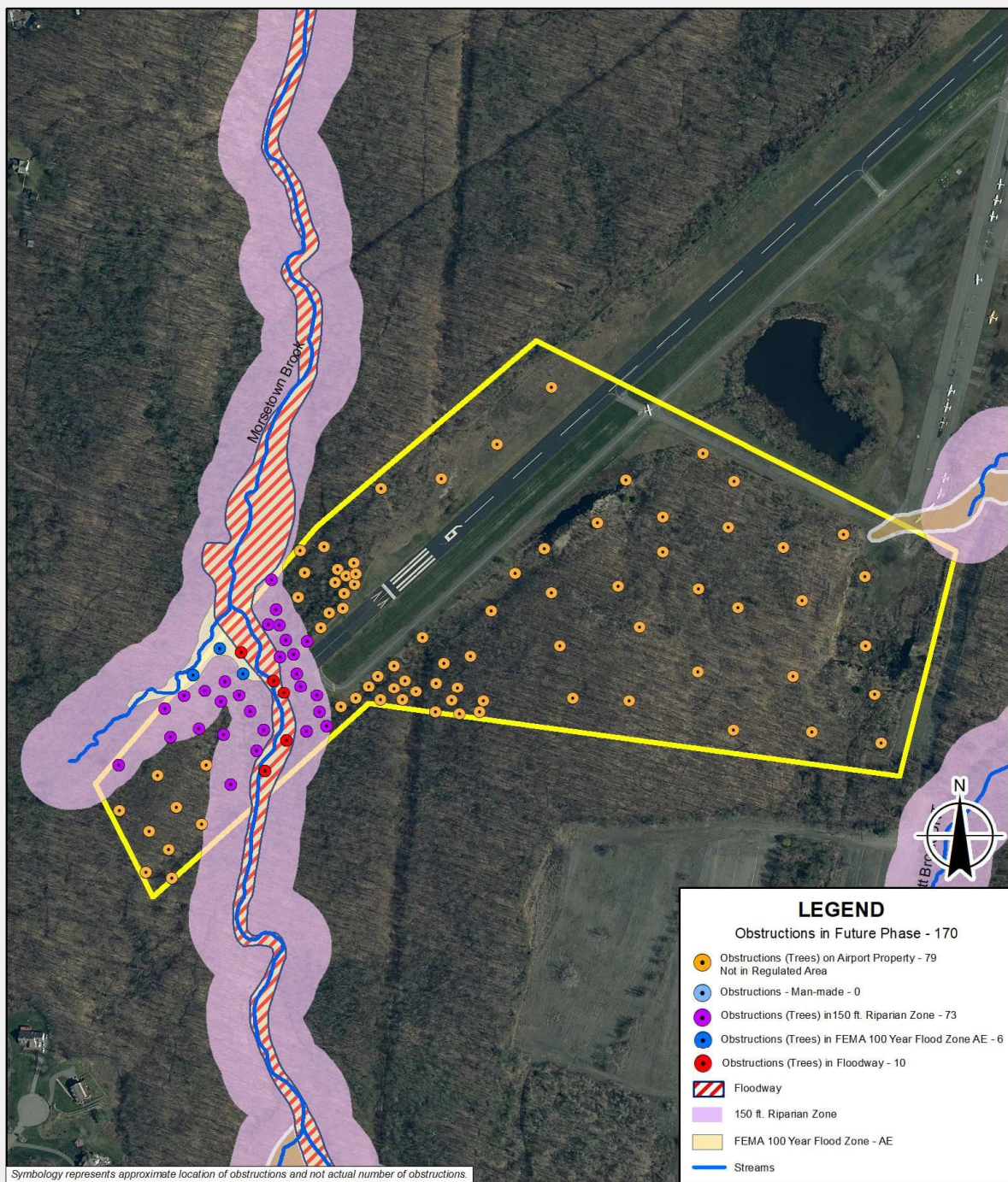
Riparian zone mitigation may be required for the proposed project for tree removal or topping within these areas, which are regulated by the NJDEP. Several options exist to fulfill the requirement including restoration, enhancement, creation, preservation, or purchase of bank credits. Mitigation will be determined and fulfilled during the future permitting process of each project phase.

For Phase 1, a total of seven (7) trees widely spaced within a wooded area in the riparian zone of Hewitt Brook tributary are to be cut. The total area of disturbance (canopy removal) within the riparian zone is approximately 0.11 acres. A Flood Hazard Area (FHA) permit application is being submitted to NJDEP proposing replanting of a 16,667 SF area within the riparian zone as mitigation for the removal of the seven (7) trees in Phase 1. There are 73 trees in the riparian zone to be removed as part of Future Phase. An FHA permit application will be prepared at such time as the Future Phase advances.


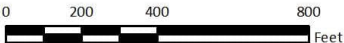
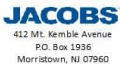


	<b>GREENWOOD LAKE AIRPORT OBSTRUCTION REMOVAL</b>	
	NEW JERSEY DEPARTMENT OF TRANSPORTATION	FLOOD HAZARD AREA/ RIPARIAN ZONE - PHASE I
SOURCE: NJOGIS AERIAL 2020, JACOBS	Scale: 1:4,800 1" = 400' 	 412 Mt. Kemble Avenue P.O. Box 1936 Morristown, NJ 07960
		<b>FIGURE-6</b>





Symbology represents approximate location of obstructions and not actual number of obstructions.

	<b>GREENWOOD LAKE AIRPORT OBSTRUCTION REMOVAL</b>	
	NEW JERSEY DEPARTMENT OF TRANSPORTATION	FLOOD HAZARD AREA/ RIPARIAN ZONE - FUTURE PHASE
SOURCE: NJGIS AERIAL 2020, JACOBS	Scale: 1:4,800 1" = 400'	
		<b>FIGURE-7</b>

## (3) SURFACE WATERS

(a) Would the project impact surface waters such that water quality standards set by Federal, state, local, or tribal regulatory agencies would be exceeded or would the project have the potential to contaminate a public drinking water supply such that public health may be adversely affected?

The project would not impact surface waters or affect water quality set by federal or State of New Jersey regulatory agencies. Morsetown Brook is located within the project area for the Future Phase, but the preferred alternative will leave tree stumps in place and will minimize erosion and soil disturbance based on the methods to be used to perform the work as described in the Project Description section. Furthermore, Hewitt Brook tributary is located adjacent to the airport property for Phase 1, and tree obstructions identified in this area are within the riparian zone (**See Figure 6 and 7**).

(b) Would the water quality impacts associated with the project cause concerns for applicable permitting agencies or require mitigation in order to obtain a permit?

As discussed previously, the project involves the cutting of trees with no changes to the existing stormwater run-off patterns or volumes. No soil disturbance will occur as trees will be cut near the base and the tree stumps will remain. The felled trees/cuttings will either be left in place (when located deep within wooded areas) or removed if readily accessible. No construction or permanent installations are included in this project. Accordingly, no water quality impacts are expected due to the proposed project.

If the answer to any of the above questions is “Yes”, consult with the USEPA or other appropriate Federal and/or state regulatory and permitting agencies and provide all agency correspondence.

#### **(4) GROUNDWATER**

(a) Would the project impact groundwater such that water quality standards set by Federal, state, local, or tribal regulatory agencies would be exceeded, or would the project have the potential to contaminate an aquifer used for public water supply such that public health may be adversely affected?

No because the proposed work is to remove/top/trim trees that are above the ground surface and there will be no interaction with groundwater. Trees to be removed will be cut at the base and the stumps will remain.

(b) Would the groundwater impacts associated with the project cause concerns for applicable permitting agencies or require mitigation in order to obtain a permit?

No. The proposed work is to remove/top/trim trees above the ground surface. Trees to be removed will be cut at the base and the stumps are to be left in place with no ground disturbance, so there will be no interaction with groundwater, stormwater runoff patterns, or ground water recharge.

(c) Is the project to be located over an EPA-designated Sole Source Aquifer?

Yes. The project is within the Highlands Sole Source Aquifer; however, the proposed obstruction removal activity will not have an adverse effect on the groundwater system. The removal/topping of

trees will not result in a reduction in groundwater recharge area and will not lead to a potential source of groundwater contamination.

If the answer to any of the above questions is “Yes”, consult with the USEPA or other appropriate Federal and/or state regulatory and permitting agencies and provide all agency correspondence as an attachment to this form.

## **(5) WILD AND SCENIC RIVERS**

Would the proposed project affect a river segment that is listed in the Wild and Scenic River System or Nationwide River Inventory (NRI)? (If Yes, coordinate with the jurisdictional agency and attach record of consultation).

There are no Wild and Scenic Rivers or Nationwide River Inventory sites within the project area.

## **(O) CUMULATIVE IMPACTS**

Discuss impacts from past, present, and reasonably foreseeable future projects both on and off the airport. Would the proposed project produce a cumulative effect on any of the environmental impact categories above? Consider projects that are connected and may have common timing and/or location. For purposes of this Form, generally use 3 years for past projects and 5 years for future foreseeable projects.

The proposed obstruction removal program for Greenwood Lake Airport outlined in this EA represents the total amount of trees needed to address the safety concerns. This project will not affect the number of arriving and departing aircraft. There are no current plans to expand existing services. Therefore, it will have no impact on traffic, noise, or air quality.

Past, present, and reasonably foreseeable projects at the airport and surrounding community were considered and evaluated to see if the collective impacts from these projects or actions would result in significant impacts to any resource category. It was concluded that collectively past, present, and reasonably foreseeable projects would not result in any significant impacts.

Past projects at Greenwood Lake Airport include:

<b>Project/Description</b>	<b>Year</b>
Design of Aircraft Parking Apron	2008
Design of Lighting System	2008
Apron Drainage Repair	2009
Grading of the RSA	2009



Rehabilitation of Existing Taxilane	2010
Relocation of Existing Beacon	2010
R/W and T/W crack repair, patching rejuvenate and marking	2010
Runway and Taxiway Lighting Construction (also beacon and wind cone)	2010
Update Airport Master Plan	2011
RSA Improvements, PH II	2012
Update Airport Master Plan	2015
Fuel Facility Installation	2016
Rehabilitation of Transient Apron	2018
Conduct EA Obstruction Removal Study	2019
Conduct Environmental Study for on-Airport Obstruction Removal	2020
Transit Apron Pavement Reconstruction (Phase 1)	2024

The past projects were subject to environmental review and determined not to have significant environmental impacts. Even when impacts to resources were considered collectively, the proposed project will not result in significant cumulative impacts based on these past projects being identified as CATEXs, meaning there are no significant impacts associated with these projects.

The following future foreseeable projects include the following:

<b>Project/Description</b>	<b>Fiscal Year</b>
Transit Apron Pavement Reconstruction (Phase 2)	2025
Replace Airport Rotating Beacon and Tower (Construction)	2025
Segmented Circle & Wind Cone (Construction)	2025
Main Apron Mill and Pavement (Design and Construction)	2026
Based Aircraft Taxiway Mill and Pavement (Design and Construction)	2026
Conduct Environmental Study (CATEX/Wetlands Survey/Permitting) for removal of 20:1 Off-Airport Obstructions (Runway 24 Approach)	2027
Removal of 20:1 Obstruction- Off Airport (Construction)	2028
Conduct Environmental Study (CATEX/Wetlands Survey/Permitting) for removal of 20:1 Off-Airport Obstructions (Runway 6 Approach)	2029

For projects under consideration for future development, they will undergo environmental review in accordance with NEPA prior to construction.

## 7. PERMITS

List all required permits for the proposed project. Has coordination with the appropriate agency commenced? What feedback has the appropriate agency offered in reference to the proposed project? What is the expected time frame for permit review and decision?

A Pre-application meeting was held with NJDEP on May 29, 2024, to discuss the applicable permitting and requirements for the proposed project. Permits will be pursued for Phase 1. Permits for the Future Phase will be obtained when that project is advanced.

A Freshwater Wetlands Protection Act Rules General Permit No. 9 (GP-9) for Airport Sight Clearing from the NJDEP Division of Land Resource Protection will likely be required for the project. The GP-9 authorizes the *“selective cutting of vegetation only as necessary to comply with the protected air space provisions for a public use aeronautical facility, mandated by the Federal Aviation Administration (FAA) and set forth in the New Jersey Department of Transportation rules at N.J.A.C. 16:54-4.2.”*

A survey for small whorled pogonia habitat within the future phase area of the project is required and will be conducted prior to any construction activity within the Future Phase area. If suitable habitat is identified, a permit / mitigation plan will be required prior to any work within the Future Phase area. Additional permits that are anticipated include:

- NJDEP No Net Loss Reforestation Act
- NJDEP Flood Hazard Area Control Act Rules - Individual Permit
- NJDEP Highlands Water Protection and Planning Act Rules Applicability Determination – Exemption No. 9
- NJDEP Water Quality Certificate

NJDOT can expect an approval approximately 6-9 months after the permit applications are submitted to NJDEP.

## **8. MITIGATION**

Describe those mitigation measures to be taken to avoid creation of significant impacts to a particular resource as a result of the proposed project, and include a discussion of any impacts that cannot be mitigated.

No freshwater wetland mitigation is expected to be required for the proposed project.

Riparian zone mitigation may be required for the proposed project for tree removal/topping within these areas, which are regulated by the NJDEP. Several options exist to fulfill the requirement including, restoration, enhancement, creation, preservation, or purchase of bank credits. Mitigation will be determined and fulfilled during the future permitting process of each project phase.

A Flood Hazard Area permit application is being submitted to the NJDEP for Phase 1 of the project. The mitigation plan proposes replanting of a 16,667 SF area within the riparian zone.

No Net Loss Reforestation mitigation may be required for the project; however, it is still to be determined. If mitigation is required, monetary compensatory reforestation will likely be utilized.



USFWS indicated that suitable habitat for small whorled pogonia may potentially be present within a small portion of the Future Phase project area. However, based on the USFWS species distribution model's relatively low confidence that suitable small whorled pogonia habitat is present, the small area of overlap between the model and the project area, and the species' low percent occupancy rates even within areas of high-quality habitat, the USFWS concurred that small whorled pogonia is unlikely to be present within the project area. However, as per a commitment made by the project sponsor, a survey will be conducted prior to initiating any work within the Future Phase project area to determine if suitable habitat does in fact exist. If it is determined that such suitable habitat is present, a permitting / mitigation plan will be developed prior to any activity related to Future Phase construction.

Timing restrictions to protect threatened and endangered species and migratory birds will be implemented and followed.

Access to the areas will be on foot and hand-held equipment will be used. If trees are cut at the base, stumps will be left in place thereby limiting soil erosion and the need for sediment controls. Additionally, contractors will not be allowed to cross through the stream. If needed for the Future Phase, a metal plate will be used to cross Morsteown Brook. Restoration of temporary impacted areas used for access will be undertaken, if needed. It is anticipated that cut vegetation will remain unless removal is required for safety or regulatory requirements (e.g. in a floodway). If vegetative debris removal is required, the contractor will remove debris on foot and by using hand-held equipment except for the north end (Phase 1) where a low-pressure mini skid steer tracked machine with a log grapple or brush grapple may be utilized. This machinery will assist in removal of debris while minimizing ground disturbance. The contractor would access the area at the north end of the property from Airport Road. If disposal of cut material is needed, proper disposal methods will be undertaken. Using the described methods, impacts will be minimized and are expected to be *de minimis*.

Even though the cuttings are selective, an initial determination was made that NJDEP No Net Loss Reforestation Act may be triggered. If final determination is that a reforestation plan is required, the plan is expected to consist of monetary compensation.

All permit requirements/mitigation measures will be tracked and monitored by the Airport Sponsor. The Airport Sponsor will provide biannual (every six months) updates to the FAA on the status of the project and the project-related permits. These status updates will be posted on the airport website for access and viewing by the public. Biannual updates will be submitted until the Proposed Project is complete.

## **9. PUBLIC INVOLVEMENT**

Describe the public review process and any comments received. Include copies of Public Notices and proof of publication.

The Draft EA document will be made available for public review and comment. The comment period is expected to last a minimum of 30 days. The Draft EA will be posted on the Greenwood Lake Airport website as well as the West Milford Twp. website. Any comments received will be addressed.

An announcement of the FAA's environmental decision will be placed in local newspapers. Copies of the Final EA and the FAA's decision will be available at the airport's Administration Building, and at the FAA's Airports District Office in Harrisburg.


## **10. LIST OF ATTACHMENTS**

1. NJDEP Natural Heritage Correspondence
2. US Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC) Report and USFWS Correspondence
3. State of New Jersey Historic Preservation Office (SHPO) Correspondence
4. Wetland Delineation Reports

**Project Title:** Greenwood Lake Airport - On Site Obstruction Removal **Identifier:** 4N1

## 11. PREPARER CERTIFICATION

I certify that the information I have provided above is, to the best of my knowledge, correct.

  
\_\_\_\_\_  
Signature \_\_\_\_\_  
2/7/2025  
Date


\_\_\_\_\_  
Scott J. Parker, PE  
Name

\_\_\_\_\_  
Sr. Project Manager  
Title

\_\_\_\_\_  
Jacobs Engineering Group Inc.  
Affiliation \_\_\_\_\_  
(201) 787-7981  
Phone #

## 12. AIRPORT SPONSOR CERTIFICATION

I certify that the information I have provided above is, to the best of my knowledge, correct. I also recognize and agree that no construction activity, including but not limited to site preparation, demolition, or land disturbance, shall proceed for the above proposed project(s) until FAA issues a final environmental decision for the proposed project(s), and until compliance with all other applicable FAA approval actions (e.g., ALP approval, airspace approval, grant approval) and special purpose laws has occurred.

  
\_\_\_\_\_  
Signature \_\_\_\_\_  
3/12/2025  
Date

\_\_\_\_\_  
Kimbrali Davis  
Name

\_\_\_\_\_  
Manager – Bureau of Aeronautics and Modal Grants  
Title

\_\_\_\_\_  
NJ Department of Transportation  
Affiliation \_\_\_\_\_  
(609) 963-2206  
Phone #

## ATTACHMENT 1 - NJDEP NATURAL HERITAGE CORRESPONDENCE



State of New Jersey

MAIL CODE 501-04

DEPARTMENT OF ENVIRONMENTAL PROTECTION

DIVISION OF PARKS & FORESTRY

NEW JERSEY FOREST SERVICE

OFFICE OF NATURAL LANDS MANAGEMENT

P.O. BOX 420

TRENTON, NJ 08625-0420

Tel. (609) 984-1339 Fax (609) 984-0427

PHILIP D. MURPHY

*Governor*

SHEILA Y. OLIVER

*Lt. Governor*

SHAWN M. LATOURETTE

*Commissioner*

October 27, 2021

Stephen Ricucci  
Jacobs Engineering  
412 Mt. Kemble Ave., Suite 100  
Morristown, NJ 07960

Re: NJDOT Greenwood Lake Airport Obstruction Removal  
Block(s) - 6002, Lot(s) - 31  
West Milford Township, Passaic County

Dear Mr. Ricucci:

Thank you for your data request regarding rare species information for the above referenced project site.

Searches of the Natural Heritage Database and the Landscape Project (Version 3.3) are based on a representation of the boundaries of your project site in our Geographic Information System (GIS). We make every effort to accurately transfer your project bounds from the map(s) submitted with the Natural Heritage Data Request Form into our GIS. We do not typically verify that your project bounds are accurate, or check them against other sources.

We have checked the Landscape Project habitat mapping and the Biotics Database for occurrences of any rare wildlife species or wildlife habitat on the referenced site. The Natural Heritage Database was searched for occurrences of rare plant species or ecological communities that may be on the project site. Please refer to Table 1 (attached) to determine if any rare plant species, ecological communities, or rare wildlife species or wildlife habitat are documented on site. A detailed report is provided for each category coded as 'Yes' in Table 1.

We have also checked the Landscape Project habitat mapping and Biotics Database for occurrences of rare wildlife species or wildlife habitat in the immediate vicinity (within ¼ mile) of the referenced site. Additionally, the Natural Heritage Database was checked for occurrences of rare plant species or ecological communities within ¼ mile of the site. Please refer to Table 2 (attached) to determine if any rare plant species, ecological communities, or rare wildlife species or wildlife habitat are documented within the immediate vicinity of the site. Detailed reports are provided for all categories coded as 'Yes' in Table 2. These reports may include species that have also been documented on the project site.

We have also checked the Landscape Project habitat mapping and Biotics Database for all occurrences of rare wildlife species or wildlife habitat within one mile of the referenced site. Please refer to Table 3 (attached) to determine if any rare wildlife species or wildlife habitat is documented within one mile of the project site. Detailed reports are provided for each category coded as 'Yes' in Table 3. These reports may include species that have also been documented on the project site.

For requests submitted in order to make a riparian zone width determination as part of a Flood Hazard Area Control Act (FHACA) rule application, we report records for all rare plant species and ecological communities tracked by the Natural Heritage Program that may be on, or in the immediate vicinity of, your project site. A subset of these plant species is also covered by the FHACA rules when the records are located within one mile of the project site. One mile searches for FHACA plant species will only report precisely located occurrences for those wetland plant species identified under the FHACA regulations as being critically dependent on the watercourse. Please refer to Table 3 (attached) to determine if any precisely located rare wetland plant species covered by the FHACA rules have been documented. Detailed reports are



# DRAFT

provided for each category coded as 'Yes' in Table 3. These reports may include species that have also been documented on, or in the immediate vicinity of, the project site.

The Natural Heritage Program reviews its data periodically to identify priority sites for natural diversity in the State. Included as priority sites are some of the State's best habitats for rare and endangered species and ecological communities. Please refer to Tables 1, 2 and 3 (attached) to determine if any priority sites are located on, in the immediate vicinity, or within one mile of the project site.

A list of rare plant species and ecological communities that have been documented from the county (or counties), referenced above, can be downloaded from <http://www.state.nj.us/dep/parksandforests/natural/heritage/countylist.html>. If suitable habitat is present at the project site, the species in that list have potential to be present.

Status and rank codes used in the tables and lists are defined in EXPLANATION OF CODES USED IN NATURAL HERITAGE REPORTS, which can be downloaded from [http://www.state.nj.us/dep/parksandforests/natural/heritage/nhpcodes\\_2010.pdf](http://www.state.nj.us/dep/parksandforests/natural/heritage/nhpcodes_2010.pdf).

Beginning May 9, 2017, the Natural Heritage Program reports for wildlife species will utilize data from Landscape Project Version 3.3. If you have questions concerning the wildlife records or wildlife species mentioned in this response, we recommend that you visit the interactive web application at the following URL, <https://njdep.maps.arcgis.com/apps/webappviewer/index.html?id=0e6a44098c524ed99bf739953cb4d4c7>, or contact the Division of Fish and Wildlife, Endangered and Nongame Species Program at (609) 292-9400.

For additional information regarding any Federally listed plant or animal species, please contact the U.S. Fish & Wildlife Service, New Jersey Field Office at <http://www.fws.gov/northeast/njfieldoffice/endangered/consultation.html>.

PLEASE SEE 'CAUTIONS AND RESTRICTIONS ON NHP DATA', which can be downloaded from <http://www.state.nj.us/dep/parksandforests/natural/heritage/newcaution2008.pdf>.

Thank you for consulting the Natural Heritage Program. The attached invoice details the payment due for processing this data request. Feel free to contact us again regarding any future data requests.

Sincerely,



Robert J. Cartica  
Administrator

c: NHP File No. 21-4107423-23134

**Table 1: On Site Data Request Search Results (6 Possible Reports)**

<b><u>Report Name</u></b>	<b><u>Included</u></b>	<b><u>Number of Pages</u></b>
1. Possibly on Project Site Based on Search of Natural Heritage Database: Rare Plant Species and Ecological Communities Currently Recorded in the New Jersey Natural Heritage Database	No	0 pages included
2. Natural Heritage Priority Sites On Site	No	0 pages included
3. Rare Wildlife Species or Wildlife Habitat on the Project Site Based on Search of Landscape Project 3.3 Species Based Patches	Yes	2 page(s) included
4. Vernal Pool Habitat on the Project Site Based on Search of Landscape Project 3.3	Yes	1 page(s) included
5. Rare Wildlife Species or Wildlife Habitat on the Project Site Based on Search of Landscape Project 3.3 Stream Habitat File	No	0 pages included
6. Other Animal Species On the Project Site Based on Additional Species Tracked by Endangered and Nongame Species Program	Yes	1 page(s) included

**Rare Wildlife Species or Wildlife Habitat on the  
Project Site Based on Search of  
Landscape Project 3.3 Species Based Patches**

Class	Common Name	Scientific Name	Feature Type	Rank	Federal Protection Status	State Protection Status	Grank	Srank
<i>Aves</i>								
	Barred Owl	Strix varia	Breeding Sighting	3	NA	State Threatened	G5	S2B,S2N
	Barred Owl	Strix varia	Non-breeding Sighting	3	NA	State Threatened	G5	S2B,S2N
	Blue-headed Vireo (Solitary Vireo)	Vireo solitarius	Breeding Sighting	2	NA	Special Concern	G5	S3B,S4N
	Cooper's Hawk	Accipiter cooperii	Breeding Sighting	2	NA	Special Concern	G5	S3B,S4N
	Golden-winged Warbler	Vermivora chrysoptera	Breeding Sighting	4	NA	State	G4	S1B,S3N
	Great Blue Heron	Ardea herodias	Foraging	2	NA	Special Concern	G5	S3B,S4N
	Hooded Warbler	Wilsonia citrina	Breeding Sighting	2	NA	Special Concern	G5	S3B,S4N
	Northern Goshawk	Accipiter gentilis	Breeding Sighting	4	NA	State	G5	S1B,S3N
	Red-shouldered Hawk	Buteo lineatus	Breeding Sighting	4	NA	State	G5	S1B,S3N
	Red-shouldered Hawk	Buteo lineatus	Non-breeding Sighting	2	NA	Special Concern	G5	S1B,S3N
	Veery	Catharus fuscescens	Breeding Sighting	2	NA	Special Concern	G5	S3B,S4N
	Whip-poor-will	Caprimulgus vociferus	Breeding Sighting	2	NA	Special Concern	G5	S3B,SUN
	Wood Thrush	Hylocichla mustelina	Breeding Sighting	2	NA	Special Concern	G4	S3B,S4N

**Rare Wildlife Species or Wildlife Habitat on the  
Project Site Based on Search of  
Landscape Project 3.3 Species Based Patches**

Class	Common Name	Scientific Name	Feature Type	Rank	Federal Protection Status	State Protection Status	Grank	Srank
<i>Mammalia</i>	Worm-eating Warbler	Helmitheros vermivorum	Breeding Sighting	2	NA	Special Concern	G5	S3B,S4N
	Bobcat	Lynx rufus	Live Individual Sighting	4	NA	State	G5	S2
	Bobcat	Lynx rufus	On Road	4	NA	State	G5	S2
	Bobcat	Lynx rufus	Physical evidence	4	NA	State	G5	S2
	Northern Myotis	Myotis septentrionalis	Active Season Sighting	5	Federally Listed Threatened	NA	G1G2	S1
	Northern Myotis	Myotis septentrionalis	Hibernaculum	5	Federally Listed Threatened	NA	G1G2	S1
<i>Reptilia</i>	Eastern Box Turtle	Terrapene carolina carolina	Occupied Habitat	2	NA	Special Concern	G5T5	S3
	Northern Copperhead	Agkistrodon contortrix mokasen	Occupied Habitat	2	NA	Special Concern	G5T5	S3
	Timber Rattlesnake	Crotalus horridus horridus	Occupied Habitat	4	NA	State	G4T4	S1
	Wood Turtle	Glyptemys insculpta	Occupied Habitat	3	NA	State Threatened	G3	S2

**Vernal Pool Habitat on the  
Project Site Based on Search of  
Landscape Project 3.3**

<b>Vernal Pool Habitat Type</b>		<b>Vernal Pool Habitat ID</b>
Vernal habitat area		3140
Vernal habitat area		3146
Total number of records:	2	



**Other Animal Species  
On the Project Site Based on  
Additional Species Tracked by  
Endangered and Nongame Species Program**

Scientific Name	Common Name	Federal Protection Status	State Protection Status	Grank	Srank
<b><i>Invertebrate Animals</i></b>					
Callophrys henrici	Henry's Elfin			G5	S3S4
Polites mystic	Long Dash			G5	S3?
Satyrium edwardsii	Edwards' Hairstreak			G5	S3
Total number of records: 3					

**Table 2: Vicinity Data Request Search Results (6 possible reports)**

<b><u>Report Name</u></b>	<b><u>Included</u></b>	<b><u>Number of Pages</u></b>
1. Immediate Vicinity of the Project Site Based on Search of Natural Heritage Database: Rare Plant Species and Ecological Communities Currently Recorded in the New Jersey Natural Heritage Database	No	0 pages included
2. Natural Heritage Priority Sites within the Immediate Vicinity	No	0 pages included
3. Rare Wildlife Species or Wildlife Habitat Within the Immediate Vicinity of the Project Site Based on Search of Landscape Project 3.3 Species Based Patches	Yes	2 page(s) included
4. Vernal Pool Habitat In the Immediate Vicinity of Project Site Based on Search of Landscape Project 3.3	Yes	1 page(s) included
5. Rare Wildlife Species or Wildlife Habitat In the Immediate Vicinity of the Project Site Based on Search of Landscape Project 3.3 Stream Habitat File	No	0 pages included
6. Other Animal Species In the Immediate Vicinity of the Project Site Based on Additional Species Tracked by Endangered and Nongame Species Program	Yes	1 page(s) included

**Rare Wildlife Species or Wildlife Habitat Within the  
Immediate Vicinity of the Project Site Based on Search of  
Landscape Project 3.3 Species Based Patches**

Class	Common Name	Scientific Name	Feature Type	Rank	Federal Protection Status	State Protection Status	Grank	Strank
<i>Aves</i>								
	Barred Owl	Strix varia	Breeding Sighting	3	NA	State Threatened	G5	S2B,S2N
	Barred Owl	Strix varia	Non-breeding Sighting	3	NA	State Threatened	G5	S2B,S2N
	Blue-headed Vireo (Solitary Vireo)	Vireo solitarius	Breeding Sighting	2	NA	Special Concern	G5	S3B,S4N
	Cerulean Warbler	Dendroica cerulea	Breeding Sighting	2	NA	Special Concern	G4	S3B,S3N
	Cooper's Hawk	Accipiter cooperii	Breeding Sighting	2	NA	Special Concern	G5	S3B,S4N
	Golden-winged Warbler	Vermivora chrysoptera	Breeding Sighting	4	NA	State Endangered	G4	S1B,S3N
	Great Blue Heron	Ardea herodias	Foraging	2	NA	Special Concern	G5	S3B,S4N
	Hooded Warbler	Wilsonia citrina	Breeding Sighting	2	NA	Special Concern	G5	S3B,S4N
	Northern Goshawk	Accipiter gentilis	Breeding Sighting	4	NA	State Endangered	G5	S1B,S3N
	Red-shouldered Hawk	Buteo lineatus	Breeding Sighting	4	NA	State Endangered	G5	S1B,S3N
	Red-shouldered Hawk	Buteo lineatus	Non-breeding Sighting	2	NA	Special Concern	G5	S1B,S3N
	Veery	Catharus fuscescens	Breeding Sighting	2	NA	Special Concern	G5	S3B,S4N
	Whip-poor-will	Caprimulgus vociferus	Breeding Sighting	2	NA	Special Concern	G5	S3B,SUN
	Wood Thrush	Hylocichla mustelina	Breeding Sighting	2	NA	Special Concern	G4	S3B,S4N

**Rare Wildlife Species or Wildlife Habitat Within the  
Immediate Vicinity of the Project Site Based on Search of  
Landscape Project 3.3 Species Based Patches**

Class	Common Name	Scientific Name	Feature Type	Rank	Federal Protection Status	State Protection Status	Grank	Srank
<i>Mammalia</i>	Worm-eating Warbler	Helmitheros vermivorum	Breeding Sighting	2	NA	Special Concern	G5	S3B,S4N
	Bobcat	Lynx rufus	Live Individual Sighting	4	NA	State Endangered	G5	S2
	Bobcat	Lynx rufus	On Road	4	NA	State Endangered	G5	S2
	Bobcat	Lynx rufus	Physical evidence	4	NA	State Endangered	G5	S2
	Northern Myotis	Myotis septentrionalis	Active Season Sighting	5	Federally Listed Threatened	NA	G1G2	S1
	Northern Myotis	Myotis septentrionalis	Hibernaculum	5	Federally Listed Threatened	NA	G1G2	S1
<i>Reptilia</i>	Eastern Box Turtle	Terrapene carolina carolina	Occupied Habitat	2	NA	Special Concern	G5T5	S3
	Northern Copperhead	Agkistrodon contortrix mokasen	Occupied Habitat	2	NA	Special Concern	G5T5	S3
	Timber Rattlesnake	Crotalus horridus horridus	Occupied Habitat	4	NA	State Endangered	G4T4	S1
	Wood Turtle	Glyptemys insculpta	Occupied Habitat	3	NA	State Threatened	G3	S2

**Vernal Pool Habitat  
In the Immediate Vicinity of  
Project Site Based on Search of  
Landscape Project 3.3**

**Vernal Pool Habitat Type****Vernal Pool Habitat ID**

Vernal habitat area	3140
Vernal habitat area	3146
Total number of records:	2



**Other Animal Species  
In the Immediate Vicinity of the Project Site Based on  
Additional Species Tracked by  
Endangered and Nongame Species Program**

Scientific Name	Common Name	Federal Protection Status	State Protection Status	Grank	Srank
<i>Invertebrate Animals</i>					
<i>Callophrys henrici</i>	Henry's Elfin			G5	S3S4
<i>Polites mystic</i>	Long Dash			G5	S3?
<i>Satyrium edwardsii</i>	Edwards' Hairstreak			G5	S3
Total number of records: 3					

***Table 3: Within 1 Mile for Riparian Zone Width Determination  
(6 possible reports)***

<b><u>Report Name</u></b>	<b><u>Included</u></b>	<b><u>Number of Pages</u></b>
1. Rare Plant Species Occurrences for Riparian Zone Width Determination (Flood Hazard Area Control Act Rule Application) - Within One Mile of the Project Site Based on Search of Natural Heritage Database	No	0 pages included
2. Natural Heritage Priority Sites for Riparian Zone Width Determination - Within One Mile of the Project Site	No	0 pages included
3. Rare Wildlife Species or Wildlife Habitat for Riparian Zone Width Determination - Within One Mile of the Project Site Based on Search of Landscape Project 3.3 Species Based Patches	Yes	3 page(s) included
4. Vernal Pool Habitat for Riparian Zone Width Determination - Within One Mile of the Project Site Based on Search of Landscape Project 3.3	Yes	1 page(s) included
5. Rare Wildlife Species or Wildlife Habitat for Riparian Zone Width Determination - Within One Mile of the Project Site Based on Search of Landscape Project 3.3 Stream Habitat File	No	0 pages included
6. Other Animal Species for Riparian Zone Width Determination - Within One Mile of the Project Site Based on Additional Species Tracked by Endangered and Nongame Species Program	Yes	1 page(s) included

**Rare Wildlife Species or Wildlife Habitat for Riparian Zone Width Determination  
Within One Mile of the Project Site  
Based on Search of Landscape Project 3.3 Species Based Patches**

Class	Common Name	Scientific Name	Feature Type	Rank	Federal Protection Status	State Protection Status	Grank	Srank
<i>Aves</i>								
	Bald Eagle	Haliaeetus leucocephalus	Foraging	4	NA	State Endangered	G5	S1B,S2N
	Bald Eagle	Haliaeetus leucocephalus	Nest	4	NA	State Endangered	G5	S1B,S2N
	Bald Eagle	Haliaeetus leucocephalus	Wintering	3	NA	State Threatened	G5	S1B,S2N
	Barred Owl	Strix varia	Breeding Sighting	3	NA	State Threatened	G5	S2B,S2N
	Barred Owl	Strix varia	Non-breeding Sighting	3	NA	State Threatened	G5	S2B,S2N
	Blue-headed Vireo (Solitary Vireo)	Vireo solitarius	Breeding Sighting	2	NA	Special Concern	G5	S3B,S4N
	Broad-winged Hawk	Buteo platypterus	Breeding Sighting	2	NA	Special Concern	G5	S3B,S4N
	Cerulean Warbler	Dendroica cerulea	Breeding Sighting	2	NA	Special Concern	G4	S3B,S3N
	Cooper's Hawk	Accipiter cooperii	Breeding Sighting	2	NA	Special Concern	G5	S3B,S4N
	Golden-winged Warbler	Vermivora chrysoptera	Breeding Sighting	4	NA	State Endangered	G4	S1B,S3N
	Great Blue Heron	Ardea herodias	Foraging	2	NA	Special Concern	G5	S3B,S4N

**Rare Wildlife Species or Wildlife Habitat for Riparian Zone Width Determination  
Within One Mile of the Project Site  
Based on Search of Landscape Project 3.3 Species Based Patches**

Class	Common Name	Scientific Name	Feature Type	Rank	Federal Protection Status	State Protection Status	Grank	Srank
	Great Blue Heron	Ardea herodias	Nesting Colony	2	NA	Special Concern	G5	S3B,S4N
	Hooded Warbler	Wilsonia citrina	Breeding Sighting	2	NA	Special Concern	G5	S3B,S4N
	Northern Goshawk	Accipiter gentilis	Breeding Sighting	4	NA	State Endangered	G5	S1B,S3N
	Red-shouldered Hawk	Buteo lineatus	Breeding Sighting	4	NA	State Endangered	G5	S1B,S3N
	Red-shouldered Hawk	Buteo lineatus	Nest	4	NA	State Endangered	G5	S1B,S3N
	Red-shouldered Hawk	Buteo lineatus	Non-breeding Sighting	2	NA	Special Concern	G5	S1B,S3N
	Veery	Catharus fuscescens	Breeding Sighting	2	NA	Special Concern	G5	S3B,S4N
	Whip-poor-will	Caprimulgus vociferus	Breeding Sighting	2	NA	Special Concern	G5	S3B,SUN
	Wood Thrush	Hylocichla mustelina	Breeding Sighting	2	NA	Special Concern	G4	S3B,S4N
	Worm-eating Warbler	Helmitheros vermivorum	Breeding Sighting	2	NA	Special Concern	G5	S3B,S4N
	Yellow-breasted Chat	Icteria virens	Breeding Sighting	2	NA	Special Concern	G5	S3B,S4N

<p><b>Rare Wildlife Species or Wildlife Habitat for Riparian Zone Width Determination</b></p> <p><b>Within One Mile of the Project Site</b></p> <p><b>Based on Search of Landscape Project 3.3 Species Based Patches</b></p>
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Class	Common Name	Scientific Name	Feature Type	Rank	Federal Protection Status	State Protection Status	Grank	Srank
<b><i>Mammalia</i></b>								
	Bobcat	Lynx rufus	Live Individual Sighting	4	NA	State Endangered	G5	S2
	Bobcat	Lynx rufus	On Road	4	NA	State Endangered	G5	S2
	Bobcat	Lynx rufus	Physical evidence	4	NA	State Endangered	G5	S2
	Northern Myotis	Myotis septentrionalis	Active Season Sighting	5	Federally Listed Threatened	NA	G1G2	S1
	Northern Myotis	Myotis septentrionalis	Hibernaculum	5	Federally Listed Threatened	NA	G1G2	S1
<b><i>Reptilia</i></b>								
	Eastern Box Turtle	Terrapene carolina carolina	Occupied Habitat	2	NA	Special Concern	G5T5	S3
	Northern Copperhead	Agkistrodon contortrix mokasen	Occupied Habitat	2	NA	Special Concern	G5T5	S3
	Timber Rattlesnake	Crotalus horridus horridus	Occupied Habitat	4	NA	State Endangered	G4T4	S1
	Wood Turtle	Glyptemys insculpta	Occupied Habitat	3	NA	State Threatened	G3	S2



<p><b>Vernal Pool Habitat for Riparian Zone Width Determination Within One Mile of the Project Site Based on Search of Landscape Project 3.3</b></p>
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Vernal Pool Habitat Type	Vernal Pool Habitat ID
Vernal habitat area	3128
Vernal habitat area	3140
Vernal habitat area	3146
Vernal habitat area	3148
Vernal habitat area	3150
Potential vernal habitat area	2459
Total number of records:	6

DRAFT

**Other Animal Species for Riparian Zone Width Determination  
Within One Mile of the Project Site  
Based on Additional Species Tracked by  
Endangered and Nongame Species Program**

Scientific Name	Common Name	Federal Protection Status	State Protection Status	Grank	Srank
<i>Invertebrate Animals</i>					
Callophrys henrici	Henry's Elfin			G5	S3S4
Polites mystic	Long Dash			G5	S3?
Satyrium edwardsii	Edwards' Hairstreak			G5	S3
Total number of records: 3					

ATTACHMENT 2 - US FISH AND WILDLIFE SERVICE (USFWS) INFORMATION FOR  
PLANNING AND CONSULTATION (IPAC) REPORT  
AND USFWS CORRESPONDENCE



# United States Department of the Interior



FISH AND WILDLIFE SERVICE  
New Jersey Field Office  
4 East Jimmie Leeds Road, Suite 4  
Galloway, New Jersey 08205  
(609) 646-9310

In Reply Refer To:  
2024-0058438

April 3, 2024

Heather Davis-Jenkins  
Federal Aviation Administration (FAA)  
Harrisburg Airports District Office  
3905 Hartzdale Drive, Suite 508  
Camp Hill, Pennsylvania 17011  
Email: Heather.F.Davis-Jenkins@faa.gov

**Reference:** Greenwood Lake Airport Obstruction Removal, Block 6002, Lot 31,  
West Milford Township, Passaic County, New Jersey

The U.S. Fish and Wildlife Service (Service) has reviewed the above-referenced proposed project pursuant to the Endangered Species Act of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq.*) (ESA) and the Migratory Bird Treaty Act of 1918 (40 Stat. 755, as amended; 16 U.S.C. 703-712 *et seq.*) (MBTA). The following comments do not address all Service concerns for fish and wildlife resources and do not preclude separate review and comment by the Service as afforded by other applicable environmental legislation.

## Federally Listed Species

A known occurrence or potential habitat for the following federally listed threatened or endangered species is located on or near the project's action area. However, the Service concurs that the proposed project 'may affect but is not likely to adversely affect' these species for the reasons stated below.

Species	Basis for Determination
Bog turtle ( <i>Glyptemys muhlenbergii</i> ), threatened	A historic bog turtle observation is located 1 mile from the project, but the nearest known extant occurrence is approximately 10 miles away. Based on a desktop review of the project area, the wetlands within and immediately adjacent to the project are classified as forested wetland and scrub/shrub wetlands. These wetlands are not anticipated to support suitable bog turtle habitat due to the absence of any substantial emergent wetland area within the wetland complex. Therefore, no adverse effects to bog turtle are anticipated.



<p>Indiana bat (<i>Myotis sodalis</i>) and northern long-eared bat (<i>Myotis septentrionalis</i>), endangered</p>	<p>The project is located within the spring staging and fall swarming buffers for two known northern long-eared bat hibernacula, and within potential summer habitat for the Indiana bat. The project involves topping and/or removal of approximately 263 trees around the existing airport runways. The landscape surrounding the airport has a high percent forest cover, so the reduction of suitable bat habitat is anticipated to have insignificant effects on the Indiana or northern long-eared bat. Additionally, the tree removal will be seasonally restricted such that tree removal can only occur outside of the bat active season (<i>i.e.</i>, no tree removal during April 1-November 15) to minimize disturbance to bats.</p>
<p>Small whorled pogonia (<i>Isotria medeoloides</i>), threatened</p>	<p>A historic small whorled pogonia observation is located approximately 5 miles from the project, but the nearest known extant occurrence is located approximately 24 miles away. The Service's species distribution model for small whorled pogonia indicates that suitable small whorled pogonia habitat may potentially be present within a small portion of the "future phase" project area. However, based on the species distribution model's relatively low confidence that suitable small whorled pogonia habitat is present, the small area of overlap between the model and the project area, and the species' low percent occupancy rates even within areas of high-quality habitat, the Service concurs that small whorled pogonia is unlikely to be present within the project area. As per the letter from the FAA to the Service, dated March 27, 2024, the project proponent (NJDOT) has agreed to conduct a survey for small whorled pogonia habitat within the "future phase" project area prior to initiating construction. If suitable habitat for the species is documented, the FAA will reinitiate consultation with the Service to determine if additional survey efforts or conservation measures are appropriate.</p>

Except for the above-mentioned species, no other federally listed threatened or endangered species under Service jurisdiction are known to occur within the proposed project's action area. Therefore, no further consultation pursuant to the ESA is required. If additional information on federally listed species becomes available, or if project plans change, this determination may be reconsidered.

The tricolored bat (*Perimyotis subflavus*, proposed endangered) may occur within the action area. This project is not likely to jeopardize the continued existence of the tricolored bat; therefore, ESA Section 7(a)(4) conference is not required. Once a final rule to list the tricolored bat is published and goes into effect (typically 30–60 days after publication), Section 7(a)(2) requirements for consultation and Section 9 prohibitions against unpermitted "take" of the species will apply. If the proposed project is not completed prior to the effective date of a final rule to list the tricolored bat, the action agency should assess the project's potential impacts to tricolored bats and reinitiate consultation with the Service if remaining project activities 'may affect' the species. Contact the New Jersey Field Office for assistance. Information on the tricolored bat is available at <https://ecos.fws.gov/ecp/species/10515>.

The monarch butterfly (*Danaus plexippus*) was designated a candidate for ESA listing in December 2020. Although candidate species receive no substantive or procedural protection under the ESA prior to listing, the Service encourages consideration of these species in project planning. The monarch range includes all of New Jersey, including small habitat patches within developed areas. The Service encourages adherence to best management practices for avoiding impacts to the monarch and improving habitat where possible; see <https://monarchjointventure.org/mjvprograms/science/roadside-habitat-for-monarchs/best-management-practices-resources>.

## Migratory Birds

The MBTA prohibits incidental injury and killing of birds (including nests, eggs, and chicks), including in your project's action area. Stressors to consider include vegetation removal or alteration (including spread of invasive species); ground disturbance; structures (e.g., window glass, tall features, overhead powerlines, entrapment hazards); lighting; noise; chemical hazards; features or activities that may promote feral cat or predator populations; and human presence. Migratory birds are protected year-round but are particularly vulnerable during their breeding season (March 15–September 15 for many species), during which we recommend conducting field surveys no more than five days before project activities to locate any nests, eggs, and flightless birds. If breeding birds are present in your project's action area, the Service recommends postponing activity and/or implementing conservation measures that minimize disturbance and avoid violating the MBTA. Please refer to the Migratory Birds section of your IPaC Report for additional information on birds of conservation concern that may occur in the action area, including their breeding season dates and web links to help identify stressors and inform conservation measures. For projects that cannot avoid impacts to migratory birds, proponents should contact the Service's Migratory Birds Program for information on permitting (<https://www.fws.gov/program/migratory-bird-permit>).

## Other Wildlife Resources

Please refer to this office's website at <https://www.fws.gov/office/new-jersey-ecological-services/> for the National Bald Eagle Management Guidelines and information from the New Jersey Natural Heritage and the Endangered and Nongame Species Programs regarding State-listed and other species of concern.

Reviewing Biologist: **ALICIA  
PROTUS** Digitally signed by ALICIA  
PROTUS  
Date: 2024.04.03  
12:42:08 -04'00'  
Alicia Protus

Authorizing Supervisor: **ROSS  
CONOVER** Digitally signed by ROSS  
CONOVER  
Date: 2024.04.03  
12:58:19 -04'00'  
Ross Conover

cc: Paula Scelsi (paula.scelsi@dot.nj.gov), NJDOT

# DRAFT



## United States Department of the Interior

FISH AND WILDLIFE SERVICE  
New Jersey Ecological Services Field Office  
4 E. Jimmie Leeds Road, Suite 4  
Galloway, NJ 08205  
Phone: (609) 646-9310



In Reply Refer To:

01/28/2025 20:15:33 UTC

Project Code: 2024-0058438

Project Name: Greenwood Lake Airport Obstruction Removal

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

To Whom It May Concern:

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

If the enclosed list indicates that any listed species may be present in your action area, please visit the New Jersey Field Office consultation web page as the next step in evaluating potential project impacts: <http://www.fws.gov/northeast/njfieldoffice/Endangered/consultation.html>

On the New Jersey Field Office consultation web page you will find:

- habitat descriptions, survey protocols, and recommended best management practices for listed species;
- recommended procedures for submitting information to this office; and
- links to other Federal and State agencies, the Section 7 Consultation Handbook, the Service's wind energy guidelines, communication tower recommendations, the National Bald Eagle Management Guidelines, and other resources and recommendations for protecting wildlife resources.

The enclosed list may change as new information about listed species becomes available. As per Federal regulations at 50 CFR 402.12(e), the enclosed list is only valid for 90 days. Please return to the IPaC website at regular intervals during project planning and implementation to obtain an updated species list. When using IPaC, be careful about drawing the boundary of your Project Location. Remember that your action area under the ESA is not limited to just the footprint of the project. The action area also includes all areas that may be indirectly affected through impacts such as noise, visual disturbance, erosion, sedimentation, hydrologic change, chemical exposure,

reduced availability or access to food resources, barriers to movement, increased human intrusions or access, and all areas affected by reasonably foreseeable future that would not occur without ("but for") the project that is currently being proposed.

Additionally, please note that on March 23, 2022, the Service published a proposal to reclassify the northern long-eared bat (NLEB) as endangered under the Endangered Species Act. The U.S. District Court for the District of Columbia has ordered the Service to complete a new final listing determination for the NLEB by November 2022 (Case 1:15-cv-00477, March 1, 2021). The bat, currently listed as threatened, faces extinction due to the range-wide impacts of white-nose syndrome (WNS), a deadly fungal disease affecting cave-dwelling bats across the continent. The proposed reclassification, if finalized, would remove the current 4(d) rule for the NLEB, as these rules may be applied only to threatened species. Depending on the type of effects a project has on NLEB, the change in the species' status may trigger the need to re-initiate consultation for any actions that are not completed and for which the Federal action agency retains discretion once the new listing determination becomes effective (anticipated to occur by December 30, 2022). If your project may result in incidental take of NLEB after the new listing goes into effect this will first need to be addressed in an updated consultation that includes an Incidental Take Statement. If your project may require re-initiation of consultation, please contact our office for additional guidance.

We appreciate your concern for threatened and endangered species. The Service encourages Federal and non-Federal project proponents to consider listed, proposed, and candidate species early in the planning process. Feel free to contact this office if you would like more information or assistance evaluating potential project impacts to federally listed species or other wildlife resources. Please include the Consultation Tracking Number in the header of this letter with any correspondence about your project.

Attachment(s):

- Official Species List
- USFWS National Wildlife Refuges and Fish Hatcheries
- Bald & Golden Eagles
- Migratory Birds
- Wetlands

## OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

**New Jersey Ecological Services Field Office**

4 E. Jimmie Leeds Road, Suite 4

Galloway, NJ 08205

(609) 646-9310



## PROJECT SUMMARY

Project Code: 2024-0058438

Project Name: Greenwood Lake Airport Obstruction Removal

Project Type: New Constr - Above Ground

Project Description: Removal of tree obstructions in the approach and departure surfaces of the Runway 06 and Runway 24 ends to maintain a safe path for air navigation.

Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@41.1277039,-74.34618402227844,14z>



Counties: Passaic County, New Jersey

## ENDANGERED SPECIES ACT SPECIES

There is a total of 6 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries<sup>1</sup>, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

- 
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

## MAMMALS

NAME	STATUS
Indiana Bat <i>Myotis sodalis</i> There is <b>final</b> critical habitat for this species. Your location does not overlap the critical habitat. Species profile: <a href="https://ecos.fws.gov/ecp/species/5949">https://ecos.fws.gov/ecp/species/5949</a>	Endangered
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/9045">https://ecos.fws.gov/ecp/species/9045</a>	Endangered
Tricolored Bat <i>Perimyotis subflavus</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/10515">https://ecos.fws.gov/ecp/species/10515</a>	Proposed Endangered

## REPTILES

NAME	STATUS
Bog Turtle <i>Glyptemys muhlenbergii</i> Population: Wherever found, except GA, NC, SC, TN, VA No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/6962">https://ecos.fws.gov/ecp/species/6962</a>	Threatened

## INSECTS

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> There is <b>proposed</b> critical habitat for this species. Your location does not overlap the critical habitat. Species profile: <a href="https://ecos.fws.gov/ecp/species/9743">https://ecos.fws.gov/ecp/species/9743</a>	Proposed Threatened

## FLOWERING PLANTS

NAME	STATUS
Small Whorled Pogonia <i>Isotria medeoloides</i> Population: No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/1890">https://ecos.fws.gov/ecp/species/1890</a>	Threatened

## CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

# USFWS NATIONAL WILDLIFE REFUGE LANDS AND FISH HATCHERIES

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS OR FISH HATCHERIES WITHIN YOUR PROJECT AREA.

## BALD & GOLDEN EAGLES

Bald and Golden Eagles are protected under the Bald and Golden Eagle Protection Act <sup>2</sup> and the Migratory Bird Treaty Act (MBTA) <sup>1</sup>. Any person or organization who plans or conducts activities that may result in impacts to Bald or Golden Eagles, or their habitats, should follow appropriate regulations and consider implementing appropriate avoidance and minimization measures, as described in the various links on this page.

- 
1. The [Bald and Golden Eagle Protection Act](#) of 1940.
  2. The [Migratory Birds Treaty Act](#) of 1918.
  3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

There are Bald Eagles and/or Golden Eagles in your [project](#) area.

### Measures for Proactively Minimizing Eagle Impacts

For information on how to best avoid and minimize disturbance to nesting bald eagles, please review the [National Bald Eagle Management Guidelines](#). You may employ the timing and activity-specific distance recommendations in this document when designing your project/ activity to avoid and minimize eagle impacts. For bald eagle information specific to Alaska, please refer to [Bald Eagle Nesting and Sensitivity to Human Activity](#).

The FWS does not currently have guidelines for avoiding and minimizing disturbance to nesting Golden Eagles. For site-specific recommendations regarding nesting Golden Eagles, please consult with the appropriate Regional [Migratory Bird Office](#) or [Ecological Services Field Office](#).

If disturbance or take of eagles cannot be avoided, an [incidental take permit](#) may be available to authorize any take that results from, but is not the purpose of, an otherwise lawful activity. For assistance making this determination for Bald Eagles, visit the [Do I Need A Permit Tool](#). For assistance making this determination for golden eagles, please consult with the appropriate Regional [Migratory Bird Office](#) or [Ecological Services Field Office](#).

### Ensure Your Eagle List is Accurate and Complete

If your project area is in a poorly surveyed area in IPaC, your list may not be complete and you may need to rely on other resources to determine what species may be present (e.g. your local FWS field office, state surveys, your own surveys). Please review the [Supplemental Information](#)

on [Migratory Birds and Eagles](#), to help you properly interpret the report for your specified location, including determining if there is sufficient data to ensure your list is accurate.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to bald or golden eagles on your list, see the "Probability of Presence Summary" below to see when these bald or golden eagles are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Bald Eagle <i>Haliaeetus leucocephalus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. <a href="https://ecos.fws.gov/ecp/species/1626">https://ecos.fws.gov/ecp/species/1626</a>	Breeds Sep 1 to Aug 31

PROBABILITY OF PRESENCE SUMMARY

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read ["Supplemental Information on Migratory Birds and Eagles"](#), specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Green bars; the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during that week of the year.

Breeding Season (■)

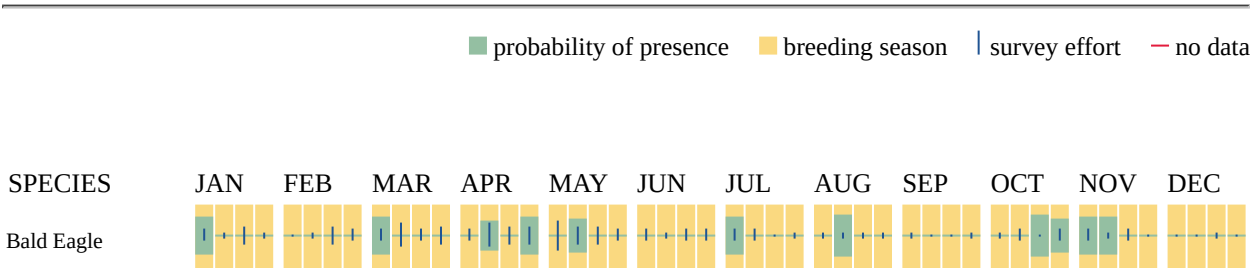
Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.

Survey Effort (|)

Vertical black lines; the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data (—)

A week is marked as having no data if there were no survey events for that week.





Non-BCC  
Vulnerable

Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds>
- Nationwide avoidance and minimization measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>
- Supplemental Information for Migratory Birds and Eagles in IPaC <https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

## MIGRATORY BIRDS

The Migratory Bird Treaty Act (MBTA) <sup>1</sup> prohibits the take (including killing, capturing, selling, trading, and transport) of protected migratory bird species without prior authorization by the Department of Interior U.S. Fish and Wildlife Service (Service). The incidental take of migratory birds is the injury or death of birds that results from, but is not the purpose, of an activity. The Service interprets the MBTA to prohibit incidental take.

- 
1. The [Migratory Birds Treaty Act](#) of 1918.
  2. The [Bald and Golden Eagle Protection Act](#) of 1940.
  3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, see the "Probability of Presence Summary" below to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
<b>Bald Eagle <i>Haliaeetus leucocephalus</i></b> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. <a href="https://ecos.fws.gov/ecp/species/1626">https://ecos.fws.gov/ecp/species/1626</a>	Breeds Sep 1 to Aug 31
<b>Black-billed Cuckoo <i>Coccyzus erythrophthalmus</i></b> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <a href="https://ecos.fws.gov/ecp/species/9399">https://ecos.fws.gov/ecp/species/9399</a>	Breeds May 15 to Oct 10

NAME	BREEDING SEASON
<b>Black-capped Chickadee</b> <i>Poecile atricapillus praticus</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA <a href="https://ecos.fws.gov/ecp/species/10645">https://ecos.fws.gov/ecp/species/10645</a>	Breeds Apr 10 to Jul 31
<b>Bobolink</b> <i>Dolichonyx oryzivorus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <a href="https://ecos.fws.gov/ecp/species/9454">https://ecos.fws.gov/ecp/species/9454</a>	Breeds May 20 to Jul 31
<b>Canada Warbler</b> <i>Cardellina canadensis</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <a href="https://ecos.fws.gov/ecp/species/9643">https://ecos.fws.gov/ecp/species/9643</a>	Breeds May 20 to Aug 10
<b>Cerulean Warbler</b> <i>Setophaga cerulea</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <a href="https://ecos.fws.gov/ecp/species/2974">https://ecos.fws.gov/ecp/species/2974</a>	Breeds Apr 27 to Jul 20
<b>Chimney Swift</b> <i>Chaetura pelagica</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <a href="https://ecos.fws.gov/ecp/species/9406">https://ecos.fws.gov/ecp/species/9406</a>	Breeds Mar 15 to Aug 25
<b>Eastern Whip-poor-will</b> <i>Antrostomus vociferus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <a href="https://ecos.fws.gov/ecp/species/10678">https://ecos.fws.gov/ecp/species/10678</a>	Breeds May 1 to Aug 20
<b>Golden-winged Warbler</b> <i>Vermivora chrysoptera</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <a href="https://ecos.fws.gov/ecp/species/8745">https://ecos.fws.gov/ecp/species/8745</a>	Breeds May 1 to Jul 20
<b>Kentucky Warbler</b> <i>Geothlypis formosa</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <a href="https://ecos.fws.gov/ecp/species/9443">https://ecos.fws.gov/ecp/species/9443</a>	Breeds Apr 20 to Aug 20
<b>Prairie Warbler</b> <i>Setophaga discolor</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <a href="https://ecos.fws.gov/ecp/species/9513">https://ecos.fws.gov/ecp/species/9513</a>	Breeds May 1 to Jul 31
<b>Red-headed Woodpecker</b> <i>Melanerpes erythrocephalus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <a href="https://ecos.fws.gov/ecp/species/9398">https://ecos.fws.gov/ecp/species/9398</a>	Breeds May 10 to Sep 10

NAME	BREEDING SEASON
<div>Rusty Blackbird <i>Euphagus carolinus</i></div> <div>This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA</div> <div><a href="https://ecos.fws.gov/ecp/species/9478">https://ecos.fws.gov/ecp/species/9478</a></div>	Breeds elsewhere
<div>Wood Thrush <i>Hylocichla mustelina</i></div> <div>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</div> <div><a href="https://ecos.fws.gov/ecp/species/9431">https://ecos.fws.gov/ecp/species/9431</a></div>	Breeds May 10 to Aug 31

PROBABILITY OF PRESENCE SUMMARY

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read "[Supplemental Information on Migratory Birds and Eagles](#)", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Green bars; the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during that week of the year.

Breeding Season (■)

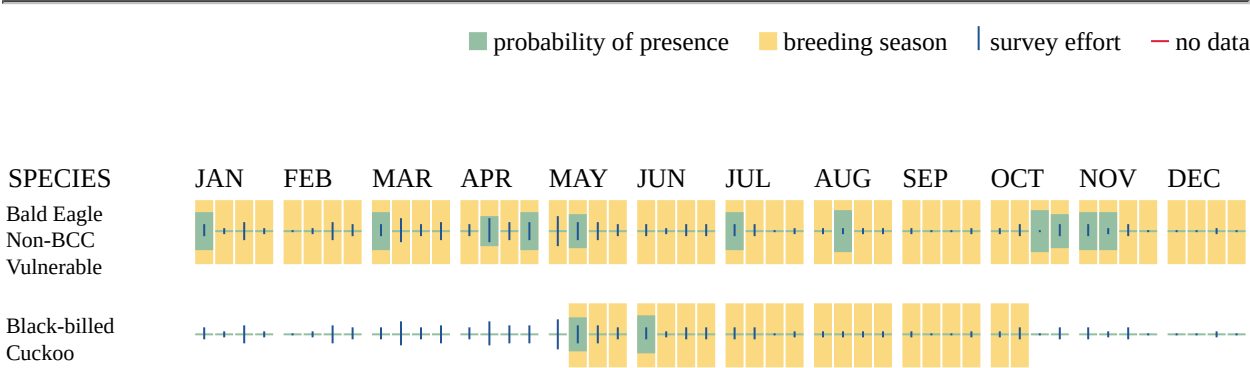
Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.

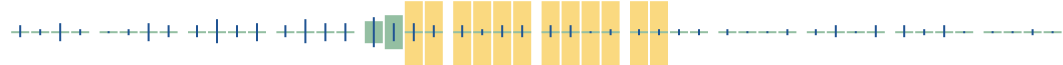
Survey Effort (|)

Vertical black lines; the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data (—)

A week is marked as having no data if there were no survey events for that week.



BCC Rangewide  
(CON)Black-capped  
Chickadee  
BCC - BCRBobolink  
BCC Rangewide  
(CON)Canada Warbler  
BCC Rangewide  
(CON)Cerulean Warbler  
BCC Rangewide  
(CON)Chimney Swift  
BCC Rangewide  
(CON)Eastern Whip-poor-will  
BCC Rangewide  
(CON)Golden-winged  
Warbler  
BCC Rangewide  
(CON)Kentucky Warbler  
BCC Rangewide  
(CON)Prairie Warbler  
BCC Rangewide  
(CON)Red-headed  
Woodpecker  
BCC Rangewide  
(CON)

## SPECIES

JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC

Rusty Blackbird  
BCC - BCRWood Thrush  
BCC Rangewide  
(CON)

Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds>
- Nationwide avoidance and minimization measures for birds

- Supplemental Information for Migratory Birds and Eagles in IPaC <https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

## WETLANDS

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

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

### FRESHWATER FORESTED/SHRUB WETLAND

- PFO1/SS1B
- PFO1E
- PFO1B
- PSS1B
- PFO1C

### RIVERINE

- R4SBC
- R5UBH
- R3UBH

### FRESHWATER POND

- PUBHx



## IPAC USER CONTACT INFORMATION

Agency: New Jersey Department of Transportation  
Name: Paula Scelsi  
Address: 1035 Parkway Avenue  
Address Line 2: P.O. Box 600  
City: Trenton  
State: NJ  
Zip: 08625-0600  
Email: paula.scelsi@dot.nj.gov  
Phone: 6099632072

## LEAD AGENCY CONTACT INFORMATION

Lead Agency: Federal Aviation Administration

ATTACHMENT 3 - STATE OF NEW JERSEY HISTORIC PRESERVATION OFFICE  
CORRESPONDENCE

DRAFT

24-0892-1  
HPO - D2024 - 022



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

Airports Division  
Eastern Region  
Delaware, Pennsylvania, New Jersey

FAA, Harrisburg Airports District Office  
3905 Hartzdale Drive, Suite 508  
Camp Hill, PA 17011  
717-730-2830  
717-730-2838 (Fax)

March 27, 2024

Katherine Marcopul, Ph.D.  
Deputy State Historic Preservation Officer  
Historic Preservation Office  
New Jersey Department of Environmental Protection  
501 East State Street, 4th Floor  
5 Station Plaza  
Trenton, NJ 08625

**Project Review Request**

Proposed Obstruction Removal: Greenwood Lake Airport (4N1)  
West Milford Township, Passaic County, NJ

Dear Ms. Marcopul:

The New Jersey Department of Transportation (NJDOT), Bureau of Aeronautics, is proposing an obstruction removal safety improvements on the Greenwood Lake Airport (4N1) property located in West Milford Township, Passaic County, New Jersey. Currently, an Environmental Assessment (EA) is underway for the proposed obstruction removal project. A grant was awarded by the Federal Aviation Administration (FAA) for the development of the EA. Should the proposed project be able to proceed (pending all clearances), it is anticipated that the NJDOT would be seeking Federal funding from the FAA. As a result this project is subject to state review to comply with Section 106 of the National Historic Preservation Act of 1966, as amended.

The NJDOT is obligated to maintain a safe path for air navigation by maintaining the height of trees within the runway approaches. The purpose of the project is to enhance air safety by removing obstructions following FAA requirements (FAA Advisory Circular 150/5300-13B). Trees and other man-made structures located on the airport property have been found to be obstructions to the 20:1 approach surface and 40:1 departure surface for the Runway 06 and Runway 24 ends. Approximately 263 trees have been identified on airport property as obstructions adversely affecting aircraft safety. Topping and/or removal of these obstructions is required to maintain runway approach and departure surfaces free of obstructions.

The project is anticipated to be conducted in two phases: Phase 1 (North) will involve the topping and/or removal of approximately 95 trees (Figures 3 and 4) and Future Phase (South) will involve the topping and/or removal of approximately 168 trees (Figures 5 and 6). The majority of the trees proposed for topping and/or removal are saplings, with larger diameter trees located along the eastern and southern boundaries.

Delineation of the Area of Potential Effect

The Area of Potential Effects (APE) is defined as the geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties if they exist in the project area. Based on the project scope of work, the proposed APE for direct and indirect effects is limited to the property parcel (Block 6002/Lot 31) (Figure 7).

Identification of Historic Properties

A desktop review utilizing the project scope of work and the NJ CRGIS Online Viewer LUCY was conducted to identify historic properties within the project's APE. This review indicated that there are no previously identified historic properties eligible for listing or listed on the National Register of Historic Places (NRHP) present within the Archaeology or Architectural APEs.

Due to the limited scope of the project, and as per preliminary guidance from Jennifer Leynes that NJDOT received on February 28, 2024, an intensive-level architectural survey is not required for this scope of work. Per guidance provided by Vincent Maresca on March 4, 2024, archaeological survey would not be required for the proposed project provided methods for avoiding ground disturbance are implemented. As described above, the work will be completed using methods to minimize impacts to ground surfaces and therefore, archaeological survey is not required.

Assessment of Effects

Based on the information provided in this Section 106 review package, it is FAA's opinion that the project as proposed will have no effect on historic properties. No further work is recommended to demonstrate compliance with Section 106 of the National Historic Act of 1966, as amended, unless the project plans change, or resources are identified during construction.

We respectfully request your concurrence with the above determination. If you have any questions or need further information regarding this project, please contact me at Heather.F.Davis-Jenkins@faa.gov or (717) 730-2835 or Ms. Paula Scelsi, NJDOT, at paula.scelsi@dot.nj.gov or (609) 963-2072.

Sincerely,

HEATHER FRANCES  
DAVIS-JENKINS

Digitally signed by HEATHER  
FRANCES DAVIS-JENKINS  
Date: 2024.03.27 14:18:51 -04'00'

Heather Davis-Jenkins, Environmental Protection Specialist  
FAA Harrisburg, PA Airports District Office  
3905 Hartzdale Drive, Suite 508  
Camp Hill, PA 17011  
717-730-2835  
[Heather.f.davis@faa.gov](mailto:Heather.f.davis@faa.gov)

I concur with your finding that there are no historic properties affected within the project's area of potential effects. Consequently, pursuant to 36 CFR 800.4(c), no further Section 106 consultation is required unless additional resources are discovered during project implementation pursuant to 36 CFR 800.13.

*Katherine J. Marcopoli* 4/9/24  
Date

Deputy State Historic Preservation Officer

Cc: Paula Scelsi, Environmental Specialist 4, Bureau of Environmental Program Resources, NJDOT  
Shadman Mohammad, Principal Engineer, Bureau of Aeronautics, NJDOT  
Scott Parker, Jacobs Engineering

## ATTACHMENT 4 - WETLAND DELINEATION REPORTS





DRAFT

## WETLAND DELINEATION REPORT

For

**Greenwood Lake Airport  
Airfield Rehabilitation Project  
Township of West Milford  
Passaic County, New Jersey**

**April 11, 2017**

### PREPARED FOR:

Jacobs Engineering Group  
299 Madison Avenue  
P.O. Box 1936  
Morristown, NJ 07962-1936  
Attn.: Scott Parker, Senior Project Manager

### PREPARED BY:

Amy S. Greene Environmental Consultants, Inc.  
4 Walter E. Foran Blvd.  
Suite 209  
Flemington, NJ 08822

ASGECI Project #4063

# DRAFT

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## **APPENDICIES**

### **APPENDIX A    FIGURES**

Figure 1	County Road Map
Figure 2	USGS Topographic Map
Figure 3	SSURGO Soils
Figure 4	NJDEP Wetland Map

### **APPENDIX B    PHOTOGRAPHS**

### **APPENDIX C    SAMPLE STATION DATA SHEETS**

### **APPENDIX D    WETLAND DELINEATION PLAN**

## 1. INTRODUCTION

The New Jersey Department of Transportation (NJDOT) is proposing safety improvements at Greenwood Lake Airport located in West Milford Township, Passaic County, New Jersey (refer to Appendix A, Figures 1 and 2). The proposed safety improvements include the installation of runway and taxiway edge lighting, rotating beacon, segmented circle and wind cone, a new lighting vault, the replacement of one PAPI in its current location, the removal of an existing PAPI with no replacement.

Greenwood Lake Airport is located in the New Jersey Highlands Preservation Area. The Highlands Water Protection and Planning Act Rules (N.J.A.C. 7:38) regulate development within the Preservation Area. *For the purpose of this study, it is assumed the proposed airfield safety improvements are exempt from the Highlands Water Protection and Planning Act Rules. Based on this assumption, ASGECI performed a wetland investigation with the understanding the activities would fall under the jurisdiction of the Freshwater Wetlands Protection Act Rules (N.J.A.C. 7:7A).*

The results of the wetland delineation are intended to assist the NJDOT in addressing the wetland and wetland transition area impacts for the airfield lighting rehabilitation project.

## 2. METHODOLOGY

Existing published information including but not limited to: soils, topographic maps, aerial photographs, NJDEP mapped wetlands and previous and previous wetland delineation performed by HNTB. Wetlands were delineated and documented within 150-feet of all proposed airfield lighting improvements by Lynn Brass-Smith and Stephanie Zilinskis of ASGECI on December 13, 14 and 15, 2016 and February 10, 2017<sup>1</sup>. Vegetation, soils and hydrology were examined for evidence of wetland characteristics according to methodology outlined in the *Federal Manual for Identifying and Delineating Jurisdictional Wetlands* (Federal Interagency Committee on Wetland Delineation, 1989). Use of this methodology is required by the New Jersey Department of Environmental Protection (NJDEP). In order to be identified as wetlands, an area must have hydrophytic vegetation, hydric soils, and be saturated by groundwater or inundated by surface water for one week or more during the growing season.

## 3. RESULTS

Six wetlands identified as A through F were delineated by ASGECI within the study area (refer to Table 1 and Wetland Survey Plans in Appendix D). Since wetlands were delineated within 150-feet of proposed activities, several of the wetlands are open-ended and continue further offsite (Wetlands A, B, C and D). A wetland delineation was previously performed by HNTB on the airport property. The wetlands defined by the A, C, D and F lines delineated by ASGECI coincide somewhat with the previous delineation performed by HNTB. Wetlands were characterized by a dominance of hydrophytic vegetation, hydric soils, and the presence of wetland hydrologic indicators. Upland areas lacked these characteristics.

According to the NJDEP mapping, freshwater wetlands classified as Palustrine Forest (PF01) are present in the study area. Palustrine Forested wetlands are mapped in association with Morsetown Brook and its unnamed tributaries and Hewitt Brook and its tributary (Appendix A, Figure 4). The results of the wetland investigation performed by ASGECI determined that the extent of wetlands is greater than that mapped by the NJDEP.

---

<sup>1</sup> If it is determined that the project is regulated by the NJDEP under the Highlands Water Protection and Planning Act Rules, all Highlands open waters which include wetlands within 300-feet of the proposed activities will need to be delineated.

## Vegetation

### Wetlands

Most of the wetlands in the study area are classified as Palustrine Forested wetlands (PF01) found in association with either Morestown Brook and its unnamed tributaries or Hewitt Brook and its unnamed tributary. Palustrine Scrub-Shrub wetlands (PSS1) and Palustrine Emergent wetlands are associated with a man-made waterbody and ditch. All wetlands are dominated by hydrophytic vegetation.

Palustrine Forested (PF01) wetlands are defined by the A, B, C, and D lines. The A line is located at the 6-end of Runway 6-24, the B line parallels the north side of the runway, and the C and D lines are located at the 24-end of Runway 6-24. Red maple (*Acer rubrum*) is the dominant canopy species with green ash (*Fraxinus pennsylvanica*) and American elm (*Ulmus americana*). Spicebush (*Lindera benzoin*), elderberry (*Sambucus canadensis*), and ironwood (*Carpinus caroliniana*) are typical understory associates. The groundcover layer includes sensitive fern (*Onoclea sensibilis*), cinnamon fern (*Osmunda cinamomea*), tussock sedge (*Carex stricta*), skunk cabbage (*Symplocarpus foetidus*) and Japanese honeysuckle (*Lonicera japonica*).

Palustrine Scrub-Shrub (PSS1) wetlands are defined by the F line which surrounds a man-made waterbody, and part of the A line. Pockets of PSS1 wetlands are present within the other delineated wetlands. Red maple saplings, pussy willow (*Salix discolor*), silky dogwood (*Cornus amomum*), maleberry (*Lyonia Ligustrina*) and highbush blueberry (*Vaccinium vacillans*) typify the PSS1 community. Herbaceous species include woolgrass (*Scirpus cyperinus*), soft rush (*Juncus effusus*), sensitive fern, tussock sedge and various species of sedges (*Carex spp.*).

A Palustrine Emergent wetland (PEM) is limited to a man-made ditch defined by the E line parallel to Taxiway A. Isolated pockets of emergent wetlands are present within the other delineated wetlands. Soft rush, woolgrass and aster (*Aster sp.*) are representative associates. Pussy willow sporadically occurs.

### Uplands

Upland areas include maintained grass within most of the active airfield and mixed hardwood forest. Hydrophytic vegetation is absent, or present in low numbers.

Maintained grass is dominated by cool season grass (*Poa sp.*) with English plantain (*Plantago lanceolata*), mugwort (*Ambrosia vulgaris*) and mouse-eared chickweed (*Cerastium fontanum*). These areas typify the airfield along the runway, taxiways and infields.

Certain areas of the airfield are mowed less frequently and contain bush clover (*Lezbedesa sp.*), spotted knapweed (*Centaurea stoebe*), little bluestem (*Andropogon scoparius*) and mugwort.

The mixed hardwood forest canopy is principally black birch (*Betula nigra*), quaking aspen (*Populus tremuloides*), honey locust (*Gleditsia triacanthos*), black cherry (*Prunus serotina*) and grey birch (*B. populifolia*). Typical understory associates include blackberry (*Rubus sp.*), witch hazel (*Hamamelis virginiana*) and autumn olive (*Elaeagnus umbellata*).

## Soil

The Passaic County Soil Survey Geographic Database (SSURGO) maps seven (7) soil types in the study area (refer to Table 1 and Appendix A, Figure 3).

<b>Table 1</b> <b>SSURGO Soils Mapping</b> Greenwood Lake Airport		
<b>Soil Mapping Unit</b>	<b>Acronym</b>	<b>Hydric Status<sup>1</sup></b>
Norwich silt loam, 0-8% slopes, extremely stony	NowBc	H
Swartswood fine sandy loam, 0-8% slopes, very stony	SweBb	NL
Swartswood fine sandy loam, 0-8% slopes, extremely stony	SweBc	NL
Swartswood fine sandy loam, 8-15% slopes, extremely stony	SweCc	NL
Urban land-Rockaway complex, 3-15% slopes	USROCC	NL
Wurtsboro silt loam, 0-8% slopes, extremely stony	WuoBc	HI
Wurtsboro, silt loam, 8-15% slopes, extremely stony	WuoCc	Hi

<sup>1</sup>H Hydric Soil

HI Soil mapping unit may contain inclusions of hydric soil

NL Not listed

One soil mapping unit is listed as hydric: Norwich silt loam, 0-8% slopes, extremely stony (NowBc). This soil is mapped by SSURGO at the southwest end of Runway 6-24 in the vicinity of the wetland defined by the A line.

Two soil mapping units may contain inclusions of hydric soil: Wurtsboro silt loam, 0-8% and 8-15% slopes, respectively (WuoBc and WucCc). These soils are mapped by SSURGO east of Taxiway B toward the 6-end of Runway 6-24, northwest of Runway 6-24 and northeast of the man-made waterbody within the airfield.

The extent of SSURGO mapped hydric soils is consistent with the areas identified as wetlands by ASGECI. Hydric soil samples obtained by ASGECI exhibited a low chroma matrix of two (2) with mottles or an unmottled matrix of one (1). Hydric soil was observed in all wetland areas. Upland areas exhibited a high chroma matrix of four (4) or above.

## Hydrology

Evidence of long-term wetland hydrology within wetland areas include saturated soil and standing water within soil borings, and visual observation of stained vegetation, morphological adaptations of trees, and hummocking. Evidence of wetland hydrology was not observed in upland areas.

## 4. WETLAND RESOURCE VALUE CLASSIFICATION

Freshwater wetlands regulated under the authority of the *Freshwater Wetlands Protection Act Rules* are assigned Resource Value Classifications of Ordinary, Intermediate, or Exceptional, and are subject to associated transition areas based upon these classifications.

- Exceptional resource value wetlands are the highest quality wetlands and require a 150-foot transition area. Exceptional resource value wetlands are those that drain to Freshwater 1 (FW-1) waters, Freshwater 2 (FW-2) trout production (TP) waters or their tributaries, or are present or documented habitat for threatened or endangered species.
- Ordinary resource value wetlands do not require transition areas. Such wetlands do not exhibit the characteristics of exceptional resource value wetlands and include isolated wetlands that are surrounded by development (i.e. areas such as lawn, maintained landscaping, and impervious surface and/or graveled or stoned roads or parking areas) of more than 50% and are less than 5,000 square feet in size. These wetlands may also include drainage ditches or detention basins.
- Intermediate resource value wetlands include all freshwater wetlands not defined as exceptional or ordinary and require a 50-foot transition area.

Greenwood Lake Airport falls within two HUC 14 Boundaries. The east side of the airport drains to Hewitt Brook and its unnamed tributary which are classified as Freshwater 2-Trout Production-Category 1 (FW2-TPC1). The west side of the airport drains to Morsetown Brook and two unnamed tributaries which are classified as Freshwater 2 Nontrout-Category 2 (FW2-NTC2). Morestown Brook and its two tributaries eventually drain to Trout Production water. The wetlands defined by the A and B lines drain to Morestown Brook, and the wetlands defined by the C and D lines drain to Hewitt Brook.

According to the NJDEP Landscape mapping, habitat for the State Endangered timber rattlesnake (*Crotalus horridus*) is present in wetlands A, B, C, D and F. Suitable habitat for the State Threatened barred owl (*Strix varia*) is also present in wetlands A and D.

With the exception of wetland E, all delineated wetlands (A, B, C, D and F) are assumed to be classified as Exceptional Resource Value with an associated 150-foot wetland transition area. This determination is based on the fact that the delineated wetlands drain directly or indirectly to Trout Production waters and/or are present or documented habitat for threatened or endangered species reported to utilize wetland habitat.

Wetland E is a wetland ditch located in maintained grass within the airfield. Wetland E is assumed to be classified as an Ordinary Resource Value wetland with no wetland transition area.

The determination of wetland resource value classification by ASGECI is based on review of the NJDEP Landscape Mapping and field investigations performed by ASGECI in the Greenwood Lake Airport study area on December 13, 14 and 15, 2016 and February 10, 2017. The NJDEP has final authority with respect to determining the wetland resource value classification of the onsite wetlands.



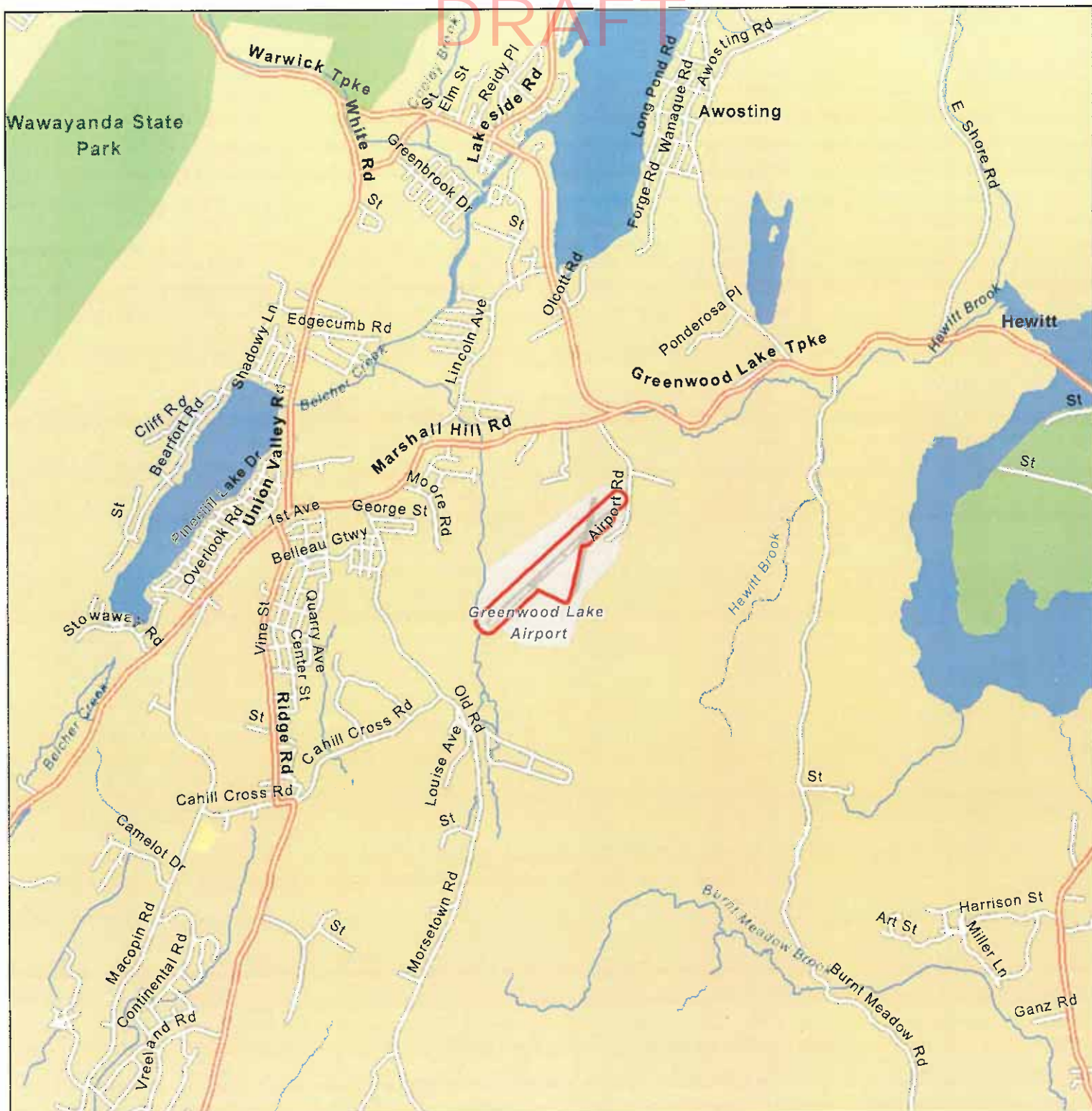
# DRAFT

## Appendix A

### Figures

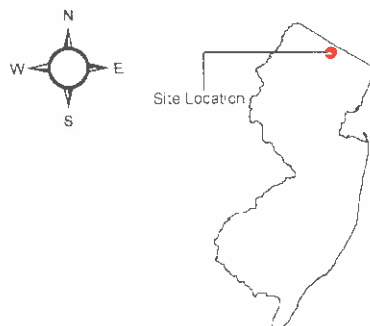
Figure 1	County Road Map
Figure 2	USGS Topographic Map
Figure 3	SSURGO Soils
Figure 4	NJDEP Wetland Map

DRAFT



## Legend

 Study Area



Site Location

## Figure 1 County Road Map

Greenwood Lake Airport  
Proposed Airfield Lighting Rehabilitation  
West Milford Township  
Passaic County, New Jersey

ASGECI Project # 4063

3,000



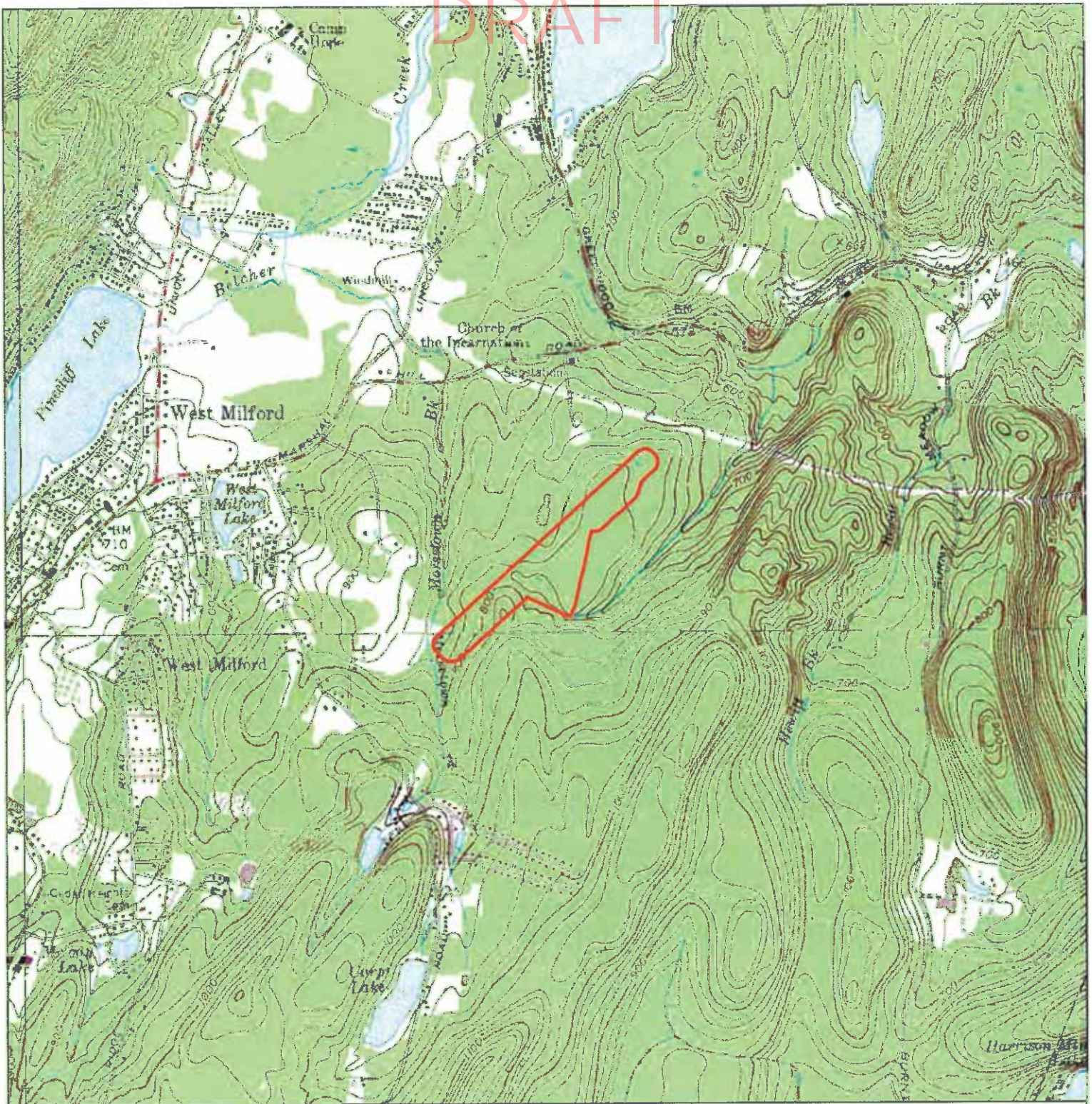
Feet

 AMY S. GREENE  
ENVIRONMENTAL  
CONSULTANTS


Sources:  
ESRI Street Map North America, Tele Atlas North America, Inc., pub. shed by ESRI® Data & Maps, Red ands, California, 2010

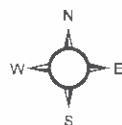


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### Legend

 Study Area



Site Location

### Figure 2 USGS Topographic Map

Greenwood Lake Airport  
Proposed Airfield Lighting Rehabilitation  
West Milford Township  
Passaic County, New Jersey

ASGECI Project # 4063

2,000

Feet

 **AMY S. GREENE  
ENVIRONMENTAL  
CONSULTANTS.**

Sources:  
Bit-Mapped 7.5 Minute Color Topographic Images of New Jersey: United States Geological Survey (USGS); Digital Raster Graphic (DRG); Topographic Series Map, Greenwood Lake NY-NJ and Wanaque NJ Quadrangle, USGS, Reston, Va., January 9, 1996.



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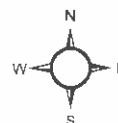
## Legend

  Study Area

### SOILS LIST:

- NowBc - Norwich silt loam, 0 to 8 percent slopes, extremely stony
- SweBb - Swartswood fine sandy loam, 0 to 8 percent slopes, very stony
- SweBc - Swartswood fine sandy loam, 0 to 8 percent slopes, extremely stony
- SweCc - Swartswood fine sandy loam, 8 to 15 percent slopes, extremely stony
- USROCC - Urban land-Rockaway complex, 3 to 15 percent slopes
- WuoBc - Wurtsboro silt loam, 0 to 8 percent slopes, extremely stony
- WuoCc - Wurtsboro silt loam, 8 to 15 percent slopes, extremely stony

Sources:  
 Soil Survey Geographic (SSURGO) Database for Passaic County, New Jersey, U.S. Department of Agriculture, Natural Resources Conservation Service, Fort Worth, Texas, November 2013.  
 New Jersey 2015 High Resolution Orthophotography, NAD83 NJ State Plane Feet, MrSID Tiles, State of New Jersey - Office of Information Technology (NJGIT), Office of Geographic Information Systems (OGIS), Trenton, NJ, February 2016.



**Figure 3**  
**SSURGO Soils Map**

Greenwood Lake Airport  
 Proposed Airfield Lighting Rehabilitation  
 West Milford Township  
 Passaic County, New Jersey

ASGECI Project # 4063

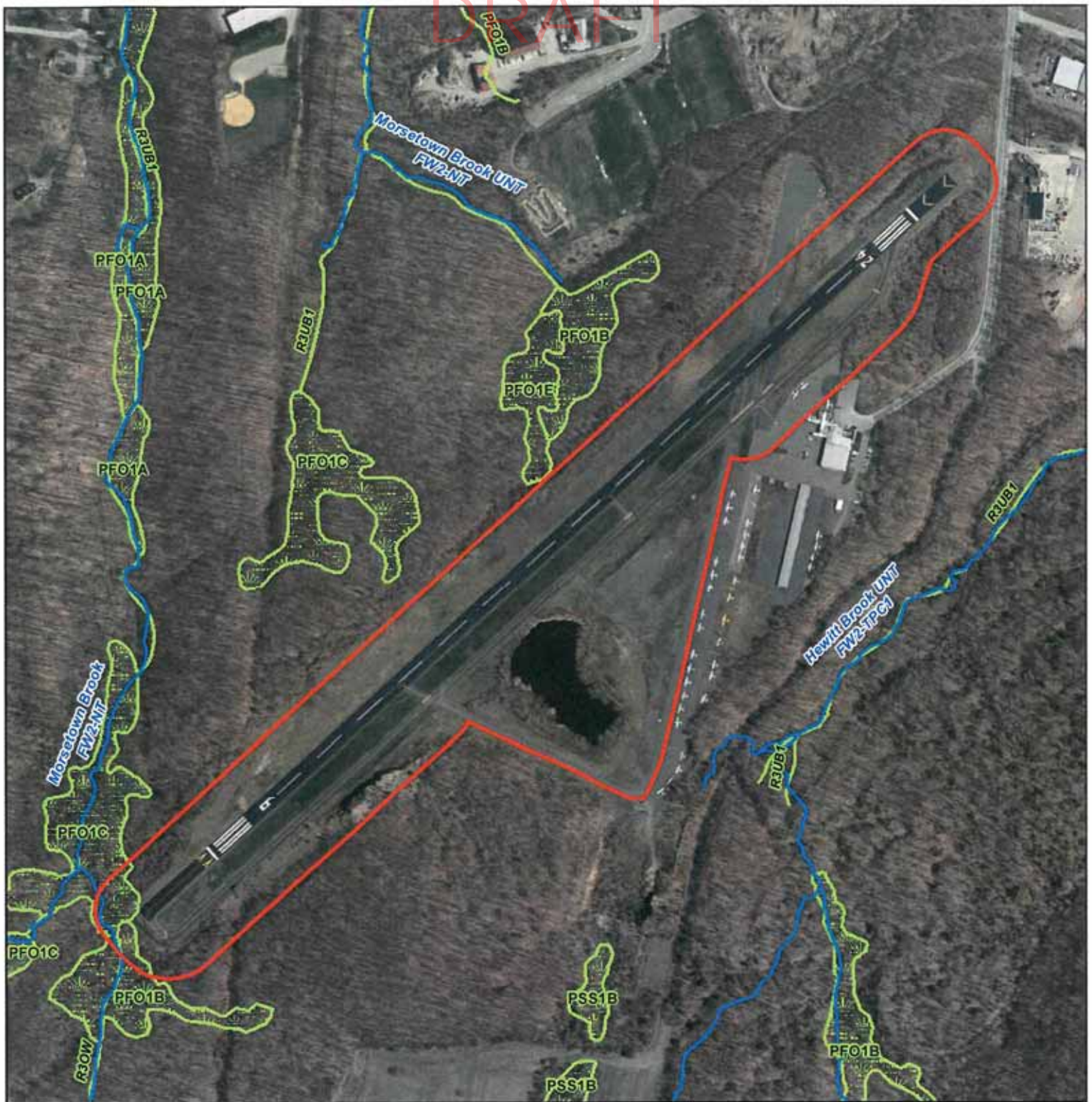
500

Feet

AMY S. GREENE  
 ENVIRONMENTAL  
 CONSULTANTS



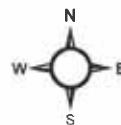
DRAFT



## Legend

- Study Area
- Streams with Water Quality
- NJDEP Freshwater Wetlands
- NJDEP Linear Wetlands

PFO1B - Palustrine, Forested, Broad-leaved  
Deciduous, Saturated  
PFO1C - Palustrine, Forested, Broad-leaved  
Deciduous, Seasonally Flooded



Sources:  
NJDEP Wetlands and NJDEP Linear Wetlands of New Jersey by County, 1966, New Jersey Department of Environmental Protection (NJDEP), Office of Information Resources Management, Bureau of Geographic Information and Analysis, NJDEP, Trenton, November 1989.  
NJDEP Surface Water Quality Standards of New Jersey, N.J. Department of Environmental Protection (NJDEP), Water Monitoring & Standards (WMS), Bureau of Freshwater and Biological Monitoring (BFBM), Trenton, N.J., December 2010.  
This map/publication/report was developed using New Jersey Department of Environmental Protection Geographic Information System, but this secondary product has not been verified by NJDEP and is not State-authorized.  
New Jersey 2015 1/4" Resolution Orthophotography, NAD83 N.J. State Plane Feet, MrSID Tiles, State of New Jersey - Office of Information Technology (NJOCIT), Office of Geographic Information Systems (OGIS), Trenton, NJ, February 2016.

**Figure 4**  
**NJDEP Wetlands and Streams Map**

Greenwood Lake Airport  
Proposed Airfield Lighting Rehabilitation  
West Milford Township  
Passaic County, New Jersey

ASGECI Project # 4063

500

Feet

AMY S. GREENE  
ENVIRONMENTAL  
CONSULTANTS

## Appendix B

### Photographs

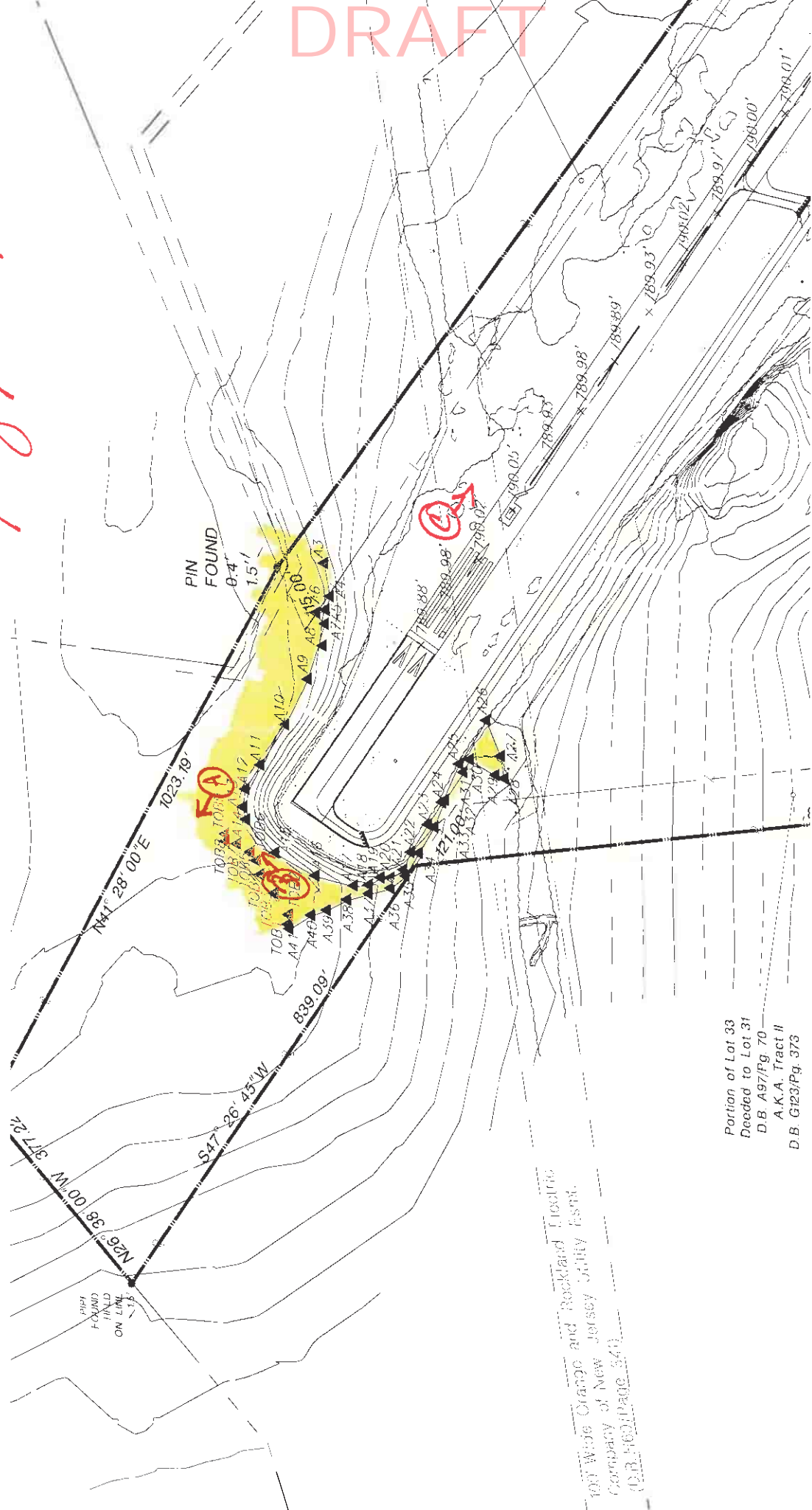




wetland

Photograph A,B,C

DRAFT

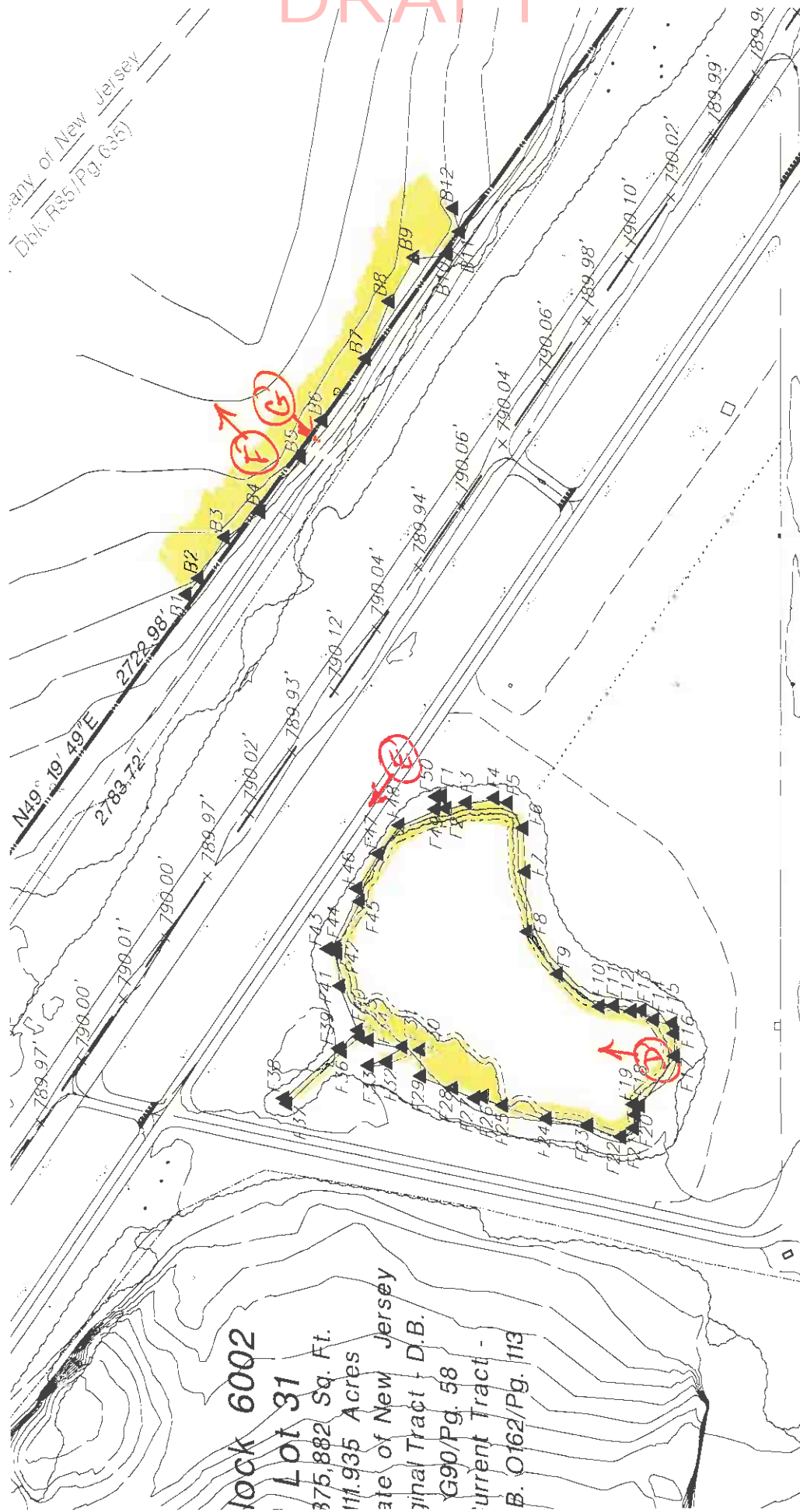


Portion of Lot 33  
Deeded to Lot 31  
D.B. A97/Pg. 70  
A.K.A. Tract II  
D.B. G123/Pg. 373

100' Wide Orange and Rockland Electric  
Company of New Jersey Utility Easement  
D.B. 4602 (Page 34)

DRAFT

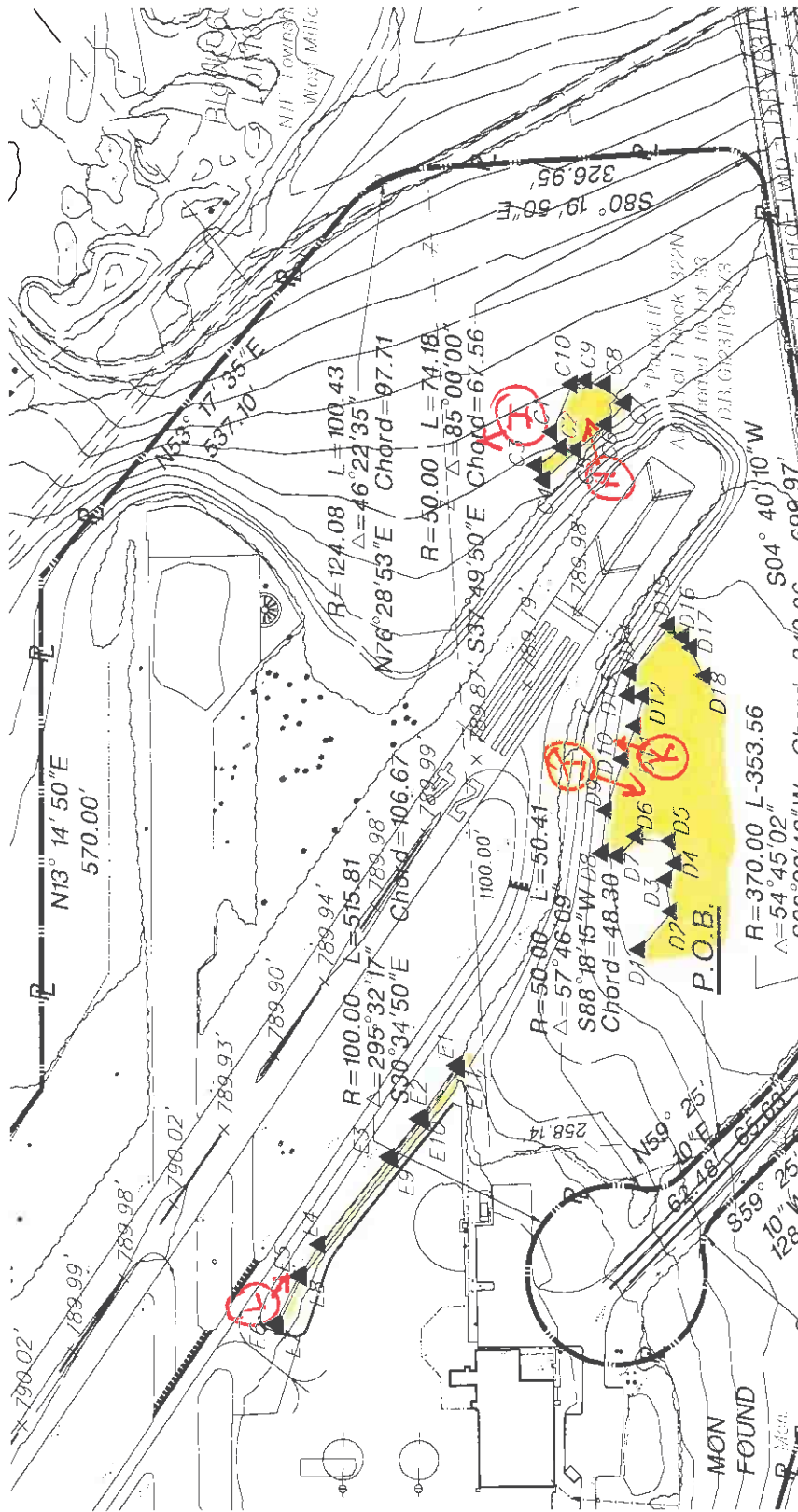
Photograph D-G  
Wetland



DRAFT

Photograph H-L

Wetland





DRAFT



A Palustrine forested wetland defined by the A line in the vicinity of wetland flag A14. Sample Station #3 is shown.



B View to uplands from wetland flag A14. Looking upslope toward the 6-end of Runway 6-24. Sample Station #4 is shown.





C View east toward the existing PAPI along Runway 6-24. Regularly mowed vs. periodically mowed areas on the airfield are shown.



D View west from wetland flag F17. Palustrine scrub-shrub wetlands form a fringe around the man-made waterbody.



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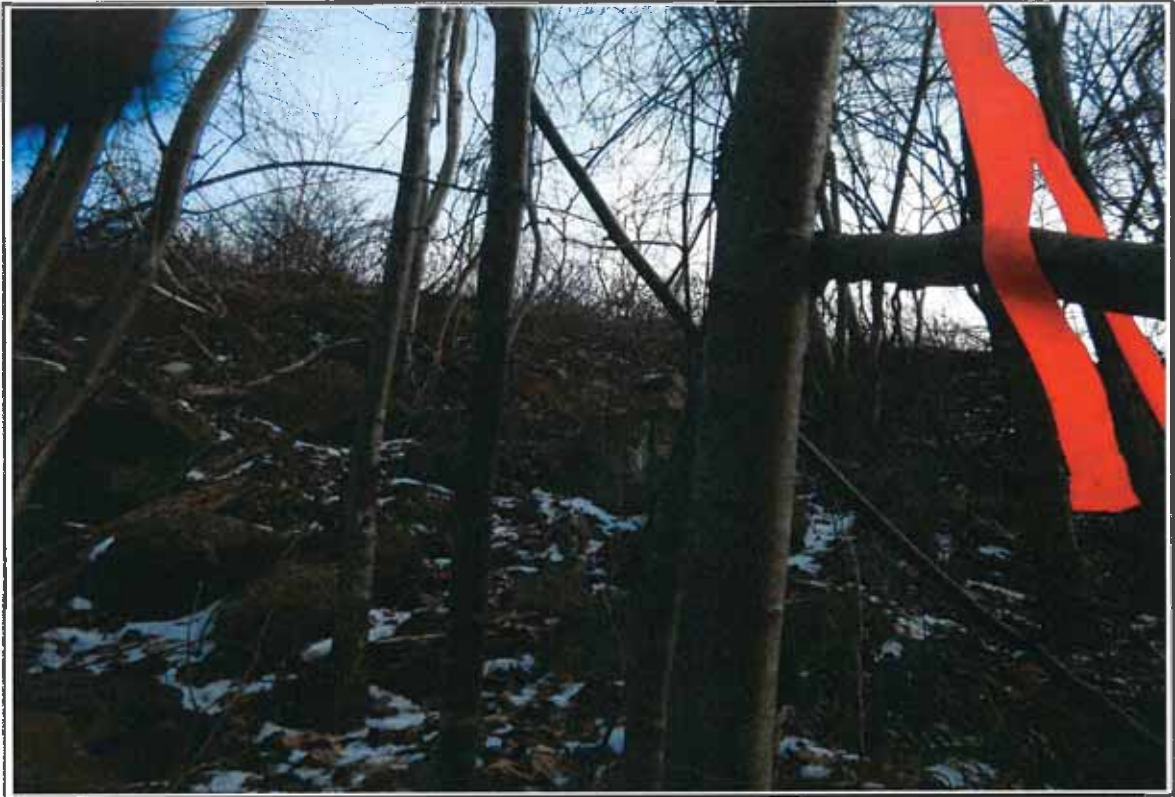
E View west between the F wetland surrounding a man-made waterbody and Runway A. Sample Stations 6 and 7 are shown.



F View north from wetland flag B5. Palustrine forested wetland and tributary to Morestown Brook are shown.



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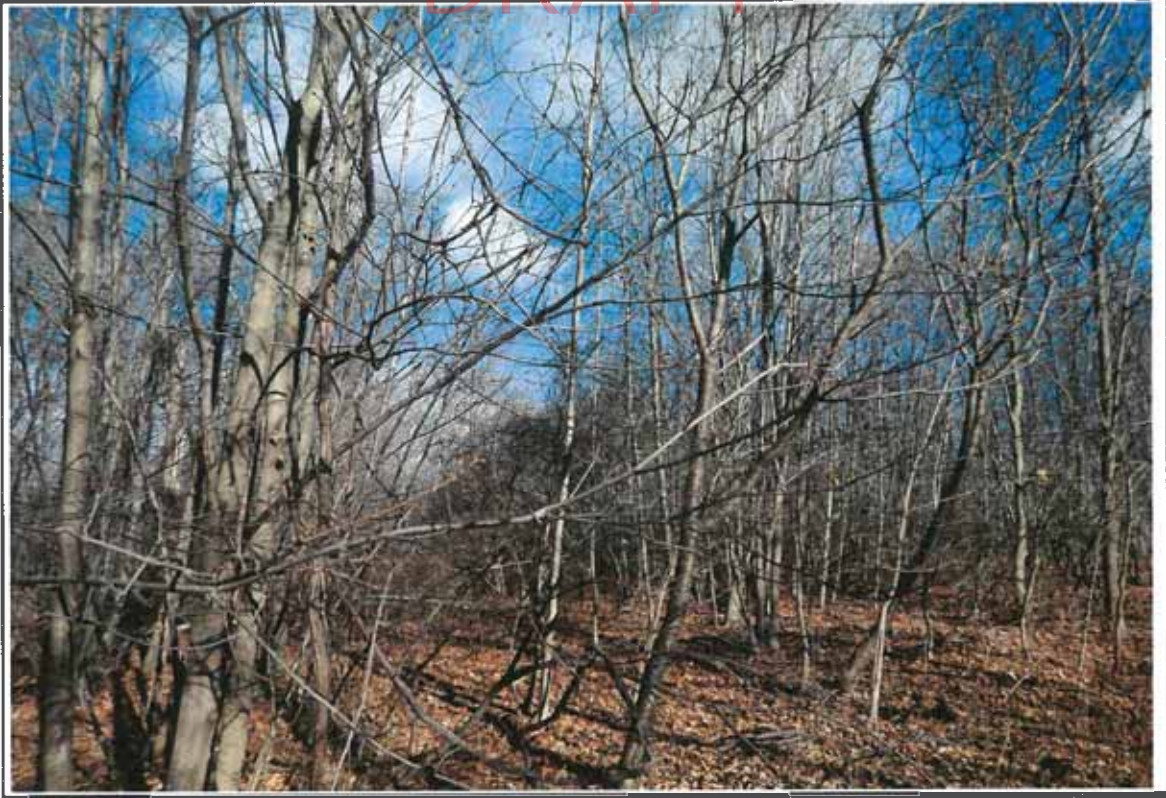


G View south from wetland flag G5 toward the embankment off Runway 6-24.



H View north from wetland flag C5 to the Palustrine forested wetland. Tussock sedge and red maple saplings are shown.





I View northwest from wetland flag C3 to upland forest dominated by black cherry, black birch and gray birch.



J View south from wetland flag D10 toward Palustrine forested wetland. Red maple saplings, gray birch, sweet pepperbush and tussock sedge are shown.



DRAFT



K View northwest from wetland flag D10 to mixed hardwood forest parallel to Taxiway A.



L View east of the wetland ditch defined by the E line. Taxiway A appears to the left. Sample stations 7 and 8.

# DRAFT

## Appendix C

### Sample Station Data Sheets



Table 1: Sampling Data and Determinations for Greenwood Lake Airport, New Milford Township, Passaic County, NJ, February 23, 2017

Station: 1		Flag: A24		Project #3863			
VEGETATION		SOIL					
Species (1)	Indicator Status (2)	Cover Class (3)	DEPTH (inches)	MATRIX COLOR (5)	MOTTLING % COLOR	TEXTURE (6)	
1. CANOPY			0 - 2	10YR 3/2		Sil	
none			2 - 10	10YR 3/3	10% 10YR 4/6	Sil	
			10 - 18	2.5Y 5/2	30% 7.5YR 5/6	Sil	
2. SUBCANOPY/ SAPLINGS							
Pussy willow	FACW	4*					
Quaking aspen	FAC	2					
3. SHRUBS							
none							
4. WOODY VINES							
none							
5. HERBACEOUS/TREE SEEDLINGS							
Soft rush	FACW	2*					
Japanese stiltgrass	FACW	2*					
Dicanthelium sp.	NIS	1					
			Soil Unit as Mapped: NowBc				
			Drainage Class as Mapped: Poorly Drained				
			Soil Classification as Mapped (7): hydric				
			Soil Classification of Sample (8): hydric				
			HYDROLOGY				
			Depth to Soil Saturation: Surface				
			Depth to Standing Water (9): 6 inches				
			Ponding: yes				
			Flooded: Other (10): D, M				
			Wetland Hydrology: present				
			SUMMARY				
			VEGETATION: Hydrophytic				
			SOILS: Hydric				
			HYDROLOGY: Present				
			PHOTOGRAPH: --				
			DETERMINATION: Wetland				
Community Type: Palustrine Scrub/Shrub Wetland (PSS1)							
Classification (4): Hydrophytic							

Table 1: Continued

Station: 2			Flag: A24			Project #3863		
VEGETATION			SOIL					
Species (1)	Indicator Status (2) EMP	Cover Class (3)	DEPTH (inches)	MATRIX COLOR (5)	MOTTLING % COLOR	TEXTURE (6)		
1. CANOPY none			0 - 14 14+ Refusal	7.5YR 4/4		grL		
2. SUBCANOPY/ SAPLINGS Grey birch			2*					
3. SHRUBS none								
4. WOODY VINES none								
5. HERBACEOUS/TREE SEEDLINGS								
Canada goldenrod	FACU	3*						
Chinese bush clover	FACU	3*						
Mugwort	NL	2						
Spotted knapweed	NL	2						
Queen Anne's lace	UPL	1						
			Soil Unit as Mapped: NowBc					
			Drainage Class as Mapped: Poorly Drained					
			Soil Classification as Mapped (7): hydric					
			Soil Classification of Sample (8): nonhydric					
			HYDROLOGY					
			Depth to Soil Saturation: Not Encountered					
			Depth to Standing Water (9): ND					
			Ponding: no					
			Flooded: no					
			Wetland Hydrology: absent					
			Other (10):					
			SUMMARY					
			VEGETATION: Nonhydrophytic					
			SOILS: Nonhydric (fill)					
			HYDROLOGY: Absent					
			DETERMINATION: Upland					
			PHOTOGRAPH: --					
Community Type: Successional Field								
Classification (4): Non-hydrophytic								

Table 1: Continued

Station: 3			Flag: A14			Project #3863		
VEGETATION			SOIL					
Species (1)	Indicator Status (2) EMP	Cover Class (3)	DEPTH (inches)	MATRIX COLOR (5)	MOTTLING % COLOR	TEXTURE (6)		
1. CANOPY none			0 - 18	7.5YR 4/1		SiL		
2. SUBCANOPY/ SAPLINGS								
Pussy willow	FAC	4*						
American elm	FACW	1						
3. SHRUBS								
Gray dogwood	FAC	3*						
Silky dogwood	FACW	2						
4. WOODY VINES								
none								
5. HERBACEOUS/TREE SEEDLINGS								
Steeple bush	NL	2*						
Sensitive fern	FACW	2*						
Tussock sedge	OBL	1						
			Soil Unit as Mapped: NowBc					
			Drainage Class as Mapped: Poorly Drained					
			Soil Classification as Mapped (7): hydric					
			Soil Classification of Sample (8): hydric					
			HYDROLOGY					
			Depth to Soil Saturation: Surface					
			Depth to Standing Water (9): Not Encountered					
			Ponding: Yes					
			Flooded: Other (10): D, M					
			Wetland Hydrology: present					
			SUMMARY					
			VEGETATION: Hydrophytic					
			SOILS: Hydric					
			HYDROLOGY: Present					
			PHOTOGRAPH: A					
			DETERMINATION: Wetland					
Community Type: Palustrine Scrub/Shrub Wetland								
Classification (4): Hydrophytic								

Table 1: Continued						
Station: 4		Flag: A14				
		Project #3863				
VEGETATION		SOIL				
Species (1)	Indicator Status (2) EMP	Cover Class (3)	DEPTH (inches)	MATRIX COLOR (5)	MOTTLING % COLOR	TEXTURE (6)
1. CANOPY						
none						
2. SUBCANOPY/ SAPPLINGS						
Gray birch	FAC	2*				
Quaking aspen	FAC	1				
Pussy willow	FACW	1				
Eastern red cedar	FACU	1				
3. SHRUBS						
Soil Unit as Mapped: NowBc						
Drainage Class as Mapped:						
Soil Classification as Mapped (7): hydric						
Soil Classification of Sample (8): nonhydric						
HYDROLOGY						
Depth to Soil Saturation: Not Encountered						
Depth to Standing Water (9): NID						
Ponding: Flooded: Other (10):						
Wetland Hydrology: absent						
SUMMARY						
VEGETATION: Nonhydrophytic						
SOILS: Nonhydric						
HYDROLOGY: Absent						
DETERMINATION: Upland						
PHOTOGRAPH: B						
Community Type: Successional Field						
Classification (4): Non-hydrophytic						

Table 1: Continued

Table 1: Continued			Station: 5	Flag: F24	Project #3863			0
VEGETATION			SOIL					
Species (1)	Indicator Status (2) EMP	Cover Class (3)	DEPTH (inches)	MATRIX COLOR (5)	MOTTLING % COLOR	TEXTURE (6)		
1. CANOPY none			0 - 6 6 - 20	10YR 2/1 2.5Y 4/1	Si 20% 7.5YR 4/6 SiL			
2. SUBCANOPY/ SAPPLINGS Quaking aspen	FAC	2*						
3. SHRUBS Tartarian honeysuckle Silky dogwood	FACU FACW	3 4*						
			Soil Unit as Mapped: SweBc Drainage Class as Mapped: moderately well-drained Soil Classification as Mapped (7): nonhydric Soil Classification of Sample (8): hydric					
			HYDROLOGY					
4. WOODY VINES none			Depth to Soil Saturation: Surface Depth to Standing Water (9): Ponding: Flooded: Other (10): Wetland Hydrology: present					
5. HERBACEOUS/TREE SEEDLINGS Tussock sedge Sensitive fern Bayonette rush New York Ironweed			3* 4* 3* 2					
			SUMMARY					
			VEGETATION: Hydrophytic SOILS: Hydric HYDROLOGY: Present PHOTOGRAPH: E					
			DETERMINATION: Wetland					
Community Type: Palustrine Scrub/Shrub Wetland Classification (4): Hydrophytic								



Table 1: Continued

Station: 6		Flag: F24		Project #3863			
VEGETATION		SOIL					
Species (1)	Indicator Status (2)	Cover Class (3)	DEPTH (inches)	MATRIX COLOR (5)	MOTTLING % COLOR	TEXTURE (6)	
1. CANOPY			0 - 14	10YR 4/4		grL	
none			14+ Refusal				
2. SUBCANOPY/ SAPLINGS							
Gray Birch	FAC	2*					
3. SHRUBS							
Blackberry	FACU	1*					
Japanese Knotweed	FAC	1*					
4. WOODY VINES							
Poison Ivy	FAC	3*					
5. HERBACEOUS/TREE SEEDLINGS							
Canada Goldenrod	FACU	1*					
			Soil Unit as Mapped: SweBc				
			Drainage Class as Mapped: moderately well-drained				
			Soil Classification as Mapped (7): nonhydric				
			Soil Classification of Sample (8): nonhydric				
			HYDROLOGY				
			Depth to Soil Saturation: Not Encountered				
			Depth to Standing Water (9): ND				
			Ponding: Flooded: Other (10):				
			Wetland Hydrology: absent				
			SUMMARY				
			VEGETATION: Nonhydrophytic				
			SOILS: Nonhydric				
			HYDROLOGY: Absent				
			PHOTOGRAPH: E				
			DETERMINATION: Upland				
Community Type: Successional Field							
Classification (4): Non-hydrophytic							

Table 1: Continued

Table 1: Continued						
Station: 7		Flag: E8		Project #3863		
VEGETATION		SOIL				
Species (1)	Indicator Status (2) EMP	Cover Class (3)	DEPTH (inches)	MATRIX COLOR (5)	MOTTLING % COLOR	TEXTURE (6)
1. CANOPY none			0 - 12 14+ Refusal	10YR 3/2	7.5YR 4/4	SigrL
2. SUBCANOPY/ SAPLINGS						
3. SHRUBS						
4. WOODY VINES						
5. HERBACEOUS/TREE SEEDLINGS						
Soft rush	FACW	2*				
Deertongue grass	FACW	2*				
Carex sp.	NIS	1				
			Soil Unit as Mapped: Wu0Bc			
			Drainage Class as Mapped: moderately well-drained			
			Soil Classification as Mapped (7): nonhydric			
			Soil Classification of Sample (8): hydric			
			HYDROLOGY			
			Depth to Soil Saturation: Surface			
			Depth to Standing Water (9): 1"			
			Ponding: Yes			
			Flooded: Other (10): Algae			
			Wetland Hydrology: present			
			SUMMARY			
			VEGETATION: Hydrophytic			
			SOILS: Hydric			
			HYDROLOGY: Present			
			PHOTOGRAPH: L			
			DETERMINATION: Wetland			
			Community Type: Palustrine Emergent Wetland (Ditch)			
			Classification (4): Hydrophytic			

Table 1: Continued

Station: 8		Flag: E8		Project #3863			
VEGETATION		SOIL					
Species (1)	Indicator Status (2) R1-IND NAT-IND	Cover Class (3)	DEPTH (inches)	MATRIX COLOR (5)	MOTTLING % COLOR	TEXTURE (6)	
1. CANOPY none			0 - 20	10YR 4/3		grL	
2. SUBCANOPY/ SAPLINGS none							
3. SHRUBS none							
4. WOODY VINES none							
5. HERBACEOUS/TREE SEEDLINGS							
Little bluestem	FACU	3					
Grass sp.	NIS	6*					
Asfer sp.	NIS	3					
			Soil Unit as Mapped: WuobC				
			Drainage Class as Mapped: moderately well drained				
			Soil Classification as Mapped (7): nonhydric				
			Soil Classification of Sample (8): nonhydric				
			HYDROLOGY				
			Depth to Soil Saturation: Not Encountered				
			Depth to Standing Water (9): ND				
			Ponding: Flooded: Other (10):				
			Wetland Hydrology: absent				
			SUMMARY				
			VEGETATION: Nonhydrophytic				
			SOILS: Nonhydric				
			HYDROLOGY: Absent				
			PHOTOGRAPH: L				
			DETERMINATION: Upland				
Community Type: Early Successional Field							
Classification (4): Non-hydrophytic							

## NOTES:

1. Common names according to Reed (1988).
2. Wetland Indicator Status according to Lichvar, Banks, Kirchner and Melvin (2016)  
NL = Not listed NIS = not identified sufficiently to determine status
3. Value equals either basal area (canopy) or cover class (all other layers).  
Braun-Blanquet Cover Scale (with midpoints):  
T.....present, less than 1% (0)  
1.....1 to 5 % (3.0) 5.....51 to 75% (63.0)  
2.....6 to 15% (10.5) 6.....76 to 95% (85.5)  
3.....16 to 25% (20.5) 7.....96 to 100% (98.0)  
4.....26 to 50% (38.0)
- \* - denotes a dominant species at this station.
4. HYDROPHYTIC = dominated by >50% FAC, FACW, or OBL plant species.  
NON-HYDROPHYTIC = dominated by >50% FACU or UPL plant species.
5. Munsell Soil Color Chart - hue value/chroma (Kollmorgen Corp., 1975).
6. USDA Soil Textures:  
C....CLAY ch....CHANNERY  
L....LOAM co....COBBLY  
S....SAND gr....GRAVELLY  
SI....SILT sh....SHALY
7. Soil mapping unit and drainage class , and classification as mapped and described by Soil Survey Geographic (SSURGO) Database for NJ Counties.
8. Soil classification assigned using criteria set forth in the Federal Manual for Identifying and Delineating Jurisdictional Wetlands (FICWD, 1989).
9. ND = no water observed to depth of sample.
10. I = hydrology inferred from soil profile.  
D = drift lines, debris, water stained leaves.  
M = morphological evidence (buttressing, hummocks, exposed roots, etc.).  
O = organic surface accumulations.

# DRAFT

## **Appendix D**

### **Plan entitled:**

*West Milford Airport*

*Prepared for:*

*Jacobs Engineering Group Inc.*

*Block 6002, Lot 31*

*Located In:*

*Township of West Milford, Passaic County, New Jersey*

Plan consisting of one sheet dated January 27, 2017

### **Prepared by:**

GEOD Corporation

24 Kanouse Road

Newfoundland, New Jersey 07435



[illegible]

# DRAFT



**DRAFT - Freshwater Wetlands Delineation Report**  
**Greenwood Lake Airport - Removal of On-Airport Obstructions**

**Township of West Milford, Passaic County, NJ**

*Submitted to:*  
**New Jersey Department of Transportation**

*Submitted by:*  
**Jacobs Engineering Group Inc.**  
412 Mt. Kemble Avenue, Suite 100  
Morristown, NJ 07960-1936

**October 2021**



Project No: E6X95400  
Document Title: Freshwater Wetlands Delineation Report - Greenwood Lake Airport  
Document No.: Document No. 1  
Revision: 0  
Document Status: DRAFT  
Date: October 2021  
Client Name: New Jersey Department of Transportation  
Client No: 1  
Project Manager: Scott Parker  
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### Document history and status

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## **Executive Summary**

Greenwood Lake Airport is located in the Township of West Milford, Passaic County, New Jersey, and operated by the New Jersey Department of Transportation (NJDOT). NJDOT is obligated to maintain a safe path for air navigation by maintaining the height of trees within the runway approaches.

Trees and other man-made structures located on airport property have been found to be obstructions to the 20:1 approach surface and 40:1 departure surface for the Runway 06 and Runway 24 ends, as well as the Part 77 primary and transition surfaces. Several trees identified as obstructions are located adjacent to or within freshwater wetlands on airport property and are within the NJDEP defined transition area buffer areas. Survey of the obstructions has already been completed with no additional obstruction survey required.



## 1. Introduction

Environmental professionals from Jacobs conducted a freshwater wetland/state open water investigation/delineation to identify, delineate, and evaluate any potential wetlands/state open waters within approximately 150 feet of the proposed Greenwood Lake Airport project limits. The investigation included an area

The delineation was conducted in accordance with the three-parameter approach described by the methodologies defined in the 1989 interagency *Federal Manual for Identifying and Delineating Jurisdictional Wetlands*.

The field investigation assessed the soils, vegetation, and hydrology for determining the extent of the wetlands/state open waters in the project vicinity. Additional freshwater wetland complexes were identified, and the delineation lines were extended onto adjacent property in order to identify any obstructions located within regulated freshwater wetland transition areas. These freshwater wetland areas exhibited visual evidence of wetland hydrology, vegetation, soils, and water conveyance/drainage patterns.

## 2. Methodology

The delineation was performed in accordance with the methodology set forth in the 1989 interagency Federal Manual for Identifying and Delineating Jurisdictional Wetlands. The resultant wetland boundaries have been located by survey for inclusion on project plan mapping.

Existing natural resource mapping and aerial photography of the project study area was reviewed prior to conducting our field investigation. Sources included the relevant United States Geological Survey (USGS), 7.5 Minute Topographic Quadrangles, New Jersey Department of Environmental Protection (NJDEP) freshwater wetland and linear wetland mapping, Natural Resource Conservation Service (NRCS) soils information and United States Fish and Wildlife Service (USFWS) National Wetland Inventory (NWI) maps.

The NJDEP freshwater wetlands mapping identified deciduous wooded wetlands near on adjacent property to the Greenwood Lake Airport property.

### 2.1 Surface Waters

The NJDEP Surface Water Quality Classification identifies the Morsetown Brook (FW-2 non-trout) and the Hewitt Brook (FW2-TPC1) on and adjacent to airport property. Please see Figure 1.

### 2.2 Existing Soils

The existing soils in the vicinity of the project area included:

- Norwich silt loam, 0 to 8 percent slopes; extremely stoney. (NowBc)
- Swartswood fine sandy loam, 0 to 8 percent slopes. (SweBc)
- Urban land Rockaway complex, 3 to 15 percent slopes. (USROCC)
- Wurtsboro silt loam, 0 to 8 percent slopes, extremely stoney. (WuoBc)

Norwich silt loam and Wurtsboro silt loam are listed on the NRCS, New Jersey, Passaic County, Hydric Soils list. Please see Figure 2.

### 3. Wetland Delineation and Investigation

A freshwater wetland/state open water delineation was performed on May 11<sup>th</sup>, and 13<sup>th</sup> 2021 to assess the project area for surrounding freshwater wetland resources that may have the potential to be impacted by the proposed Greenwood Lake Airport Obstruction Removal project on airport property.

#### North Side Wetland Delineation

This area was identified on the NJDEP freshwater wetlands mapping as a deciduous wooded wetland complex of 3.71 acres. The USFWS Wetlands Mapper did not have this area identified as a wetland. The area was confirmed during the investigation as deciduous wooded wetland. This freshwater wetland area was initially identified and delineated as Line B by others in 2017. Jacob's freshwater wetland delineation extended this line, as Line A/B continuing it southwest parallel to airport property. Please see pictures 1-4.

Dominant vegetation in this area included *Acer rubrum* (red maple- FAC), (*American Elm* - FACW) (*poison ivy* -FAC), *Osmundastrum cinnamomeum* (cinnamon fern- FACW), *Onoclea sensibilis* (sensitive fern- FACW). Upland was *Betula populifolia* (gray birch -FAC), *Alliaria petiolate* (garlic mustard-FACU), and *Berberis thunbergia* (Japanese barberry - FACU).

Soils consisted of a saturated clay loam that were hydric (10 YR 2/2 and 2/1 with mottling 10YR 5/6). Primary and secondary characteristics also observed included water-stained leaves, standing water, drainage patterns and tree buttressing/exposed root systems.

#### Runway 6 Wetland Delineation

The Runway 6 End airport property has mapped NJDEP deciduous wooded and deciduous scrub/shrub freshwater wetlands associated with the Morsetown Brook (FW-2 non-trout). The USFWS Wetlands Mapper identifies several wetland areas as Freshwater Forested /Shrub wetlands (Palustrine Forested Broad Leaved Deciduous - PFO1). The wetland areas were confirmed during the field investigation and delineated. The delineation included lines C, D, E, F, G, and H. The Jacobs delineated C and D lines extended or connected to the initial A line delineation previously done at the Runway 6 end.

Dominant vegetation included *Acer rubrum* (red maple - FAC), *Ulmus americana* (American elm- FACW), *Cornus amomum* (silky dogwood – FACW), *Symplocarpus foetidus* (skunk cabbage - OBL). Upland vegetation included *Acer rubrum* (red maple - FAC), *Quercus alba* (white oak- FACW), and *Berberis thunbergia* (Japanese barberry - FACU).

Hydric wetland soils consisted of a low chroma, saturated clay loam (10 YR 2/2 and 2/1 with mottling 10YR 4/5). A rocky substate was present in the vicinity of the H wetland line making it difficult for soil sampling.

## 4. Conclusion

The freshwater wetland investigation/delineation of the Greenwood Lake project area extended and identified additional freshwater wetland complexes at the Runway 6 end of the airport property and expanded on the previous wetland delineation by others on the north west adjacent airport property. These freshwater wetland areas were identified on the NJDEP freshwater wetlands mapping as deciduous scrub/shrub wetlands and deciduous forested wetlands and US Fish and Wildlife NWI wetlands mapping. These mapped complexes however were more extensive than the NJDEP freshwater wetland mapping exhibited.

It is assumed that the delineated freshwater wetlands would be classified as exceptional resource value freshwater wetlands as they are freshwater wetland complexes providing habitat for threatened and endangered species. Due to the presence of these threatened and endangered species, it is likely these wetland areas will be classified as exceptional resource value wetlands with an associated 150 ft. transition area buffer.

These freshwater wetland complexes are identified by the NJDEP Landscape 3.3 Skylands Region Data, threatened and endangered species mapping, as having the following species present:

### State of New Jersey

- Barred Owl - Threatened
- Bobcat - Endangered
- Timber rattlesnake - Endangered
- Red shouldered hawk - Endangered
- Wood turtle - Threatened

### Federal

- Northern myotis - Threatened
- Indiana bat – Endangered
- Northern Long eared bat – Threatened

The first step in the New Jersey regulatory process is to submit a Letter of Interpretation (LOI) package to the NJDEP Land Use Regulation department. The LOI will provide approved wetland limits for the project area and assign a resource value classification. These approved freshwater wetland/state open water limits will help design engineers avoid permanent wetland disturbances. The LOI, once issued, will serve as the regulatory document verifying the wetland boundaries, and is valid for a period of five (5) years. In order to expedite the permitting LOI process, the LOI information can be submitted concurrently with the appropriate permit application for the project.

A pre-application conference with NJDEP is recommended on all projects for concurrence on the appropriate regulatory permits. The proposed project may qualify for a freshwater wetlands General Permit (GP) 9 for Airport sight clearing and a flood hazard area, permit -by rule application assuming the project meets the conditions of the GP 9 and flood hazard area

PBR. If the project does not meet the conditions of these regulatory permits, Individual permits may be required. Timing restrictions for on-site tree removal would need to be observed from March 1<sup>st</sup> to November 15<sup>th</sup>.



## 5. References

- 1 Cowardin, L.M., V. Carter, F.C. Golet, and E.T. LaRoe. 1979. Classification of Wetlands and Deepwater Habitats of the United States. Report FWS/OBS-79/31. U.S. Fish and Wildlife Service, Biological Services Program. Reprinted 1992.
2. USACE. 1989. Federal Manual for Identifying and Delineating Jurisdictional Wetlands (online edition).  
<https://www.fws.gov/northeast/ecologicalservices/pdf/wetlands/interagency%20wetland%20delineation%20manual%201989.pdf>. Accessed November 2015.
3. State of New Jersey NJDEP Division of Land Resource Protection website;  
<https://www.nj.gov/dep/landuse/>

## APPENDIX A

## Greenwood Lake Airport – Freshwater Wetland Delineation Photographs



1. View southwest of delineated A/B line from approx. flag B-2.



2. View northwest from approx. flag B-7.

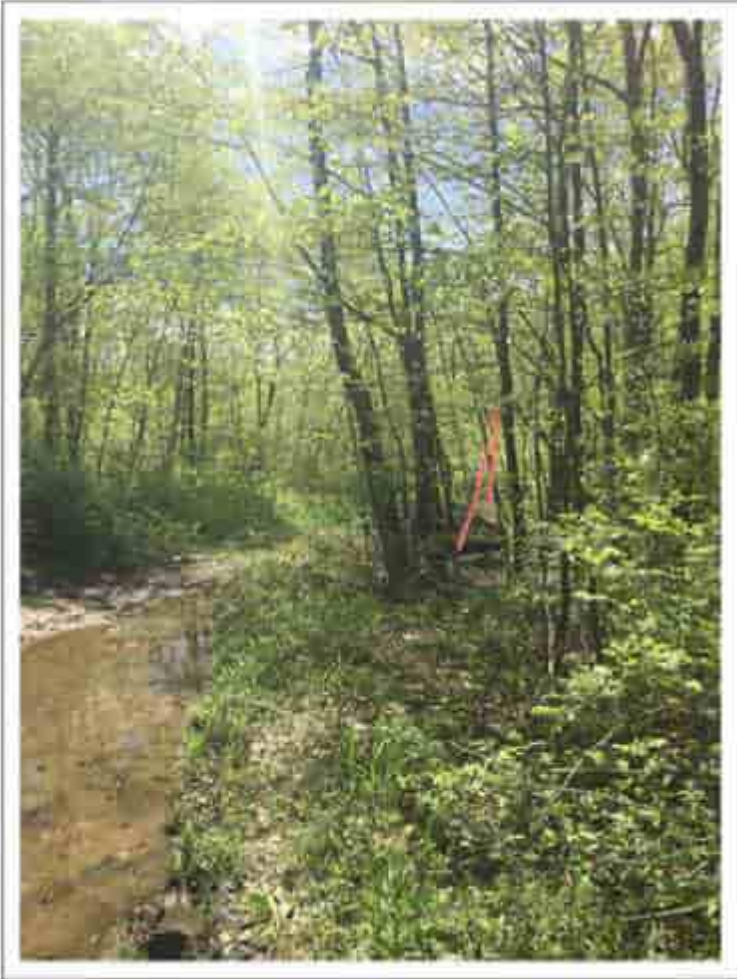


3. View northeast of standing water near flag B-3.



4. B line saturated soils at surface at approx. flag B-6.





5. View south from approx. flag C-10.



6. View west from approx. flag C -12 at freshwater wetlands.

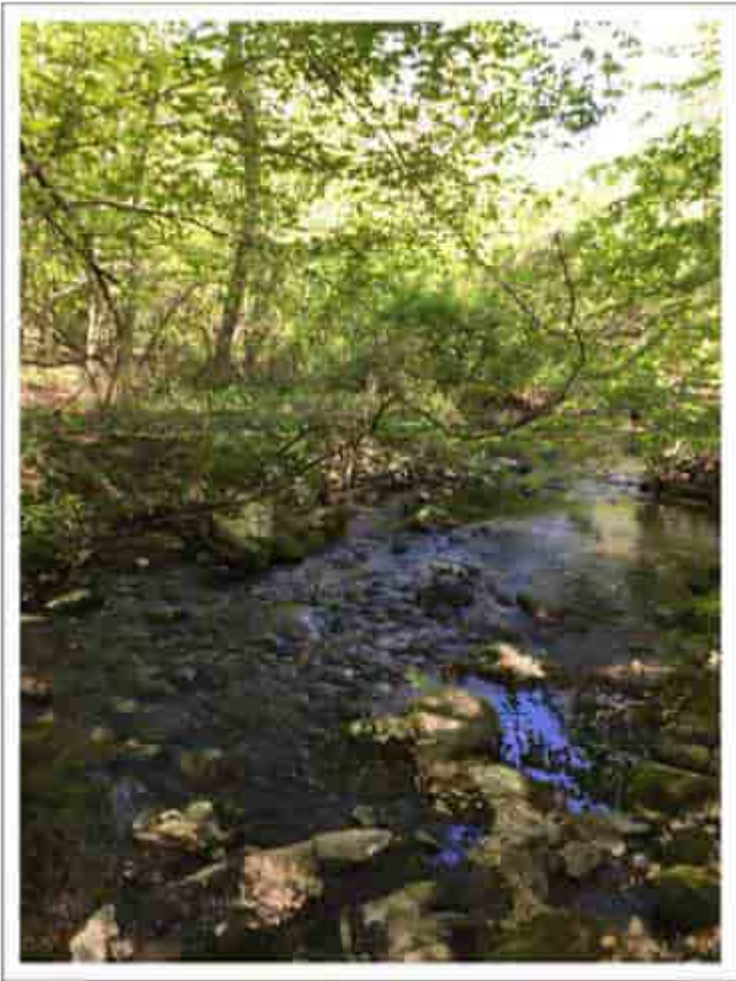




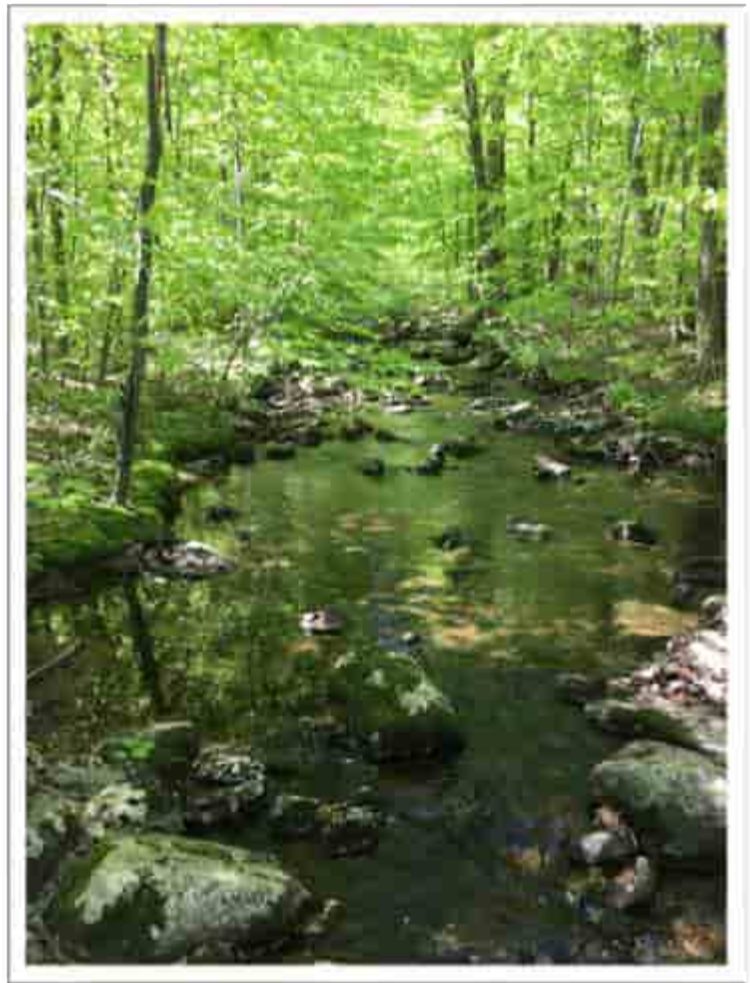
7. View northwest at approx. flag D-3.



8. View of D wetland area. Saturated soil and root and trunk morphological adaptations.



9. View northwest from approx flag H-9 Morsetown Brook trib.



10. View from flag G4 view northeast along Morsetown Brook.

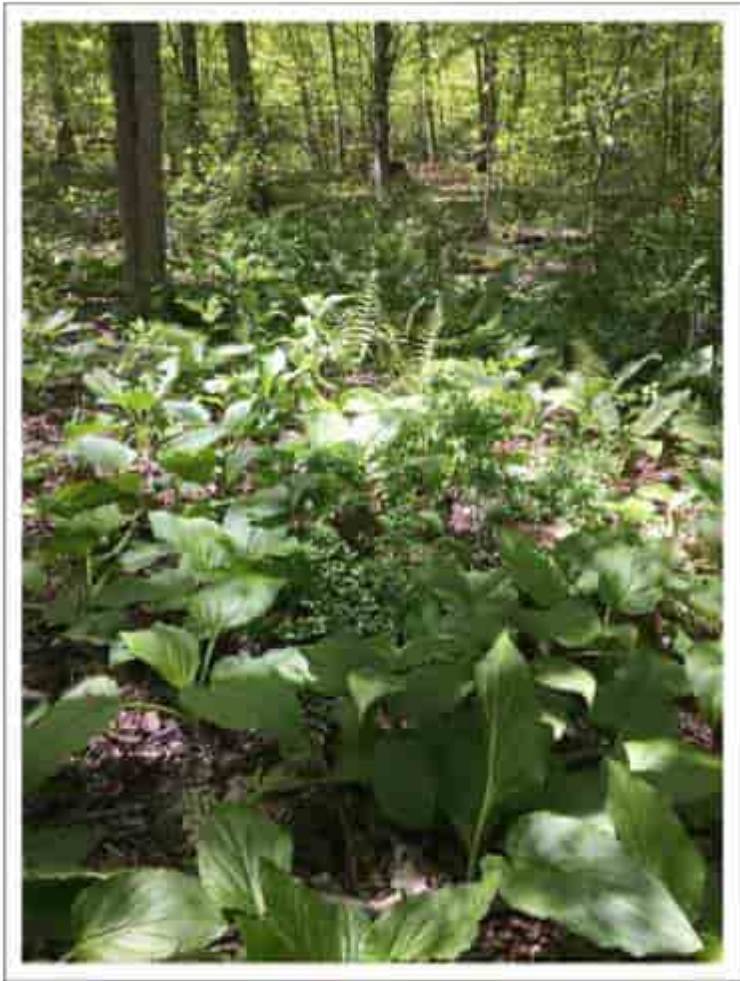




11. G line open water of Morsetown Brook.



12. View northwest of freshwater wetland at approx. flag G-8.

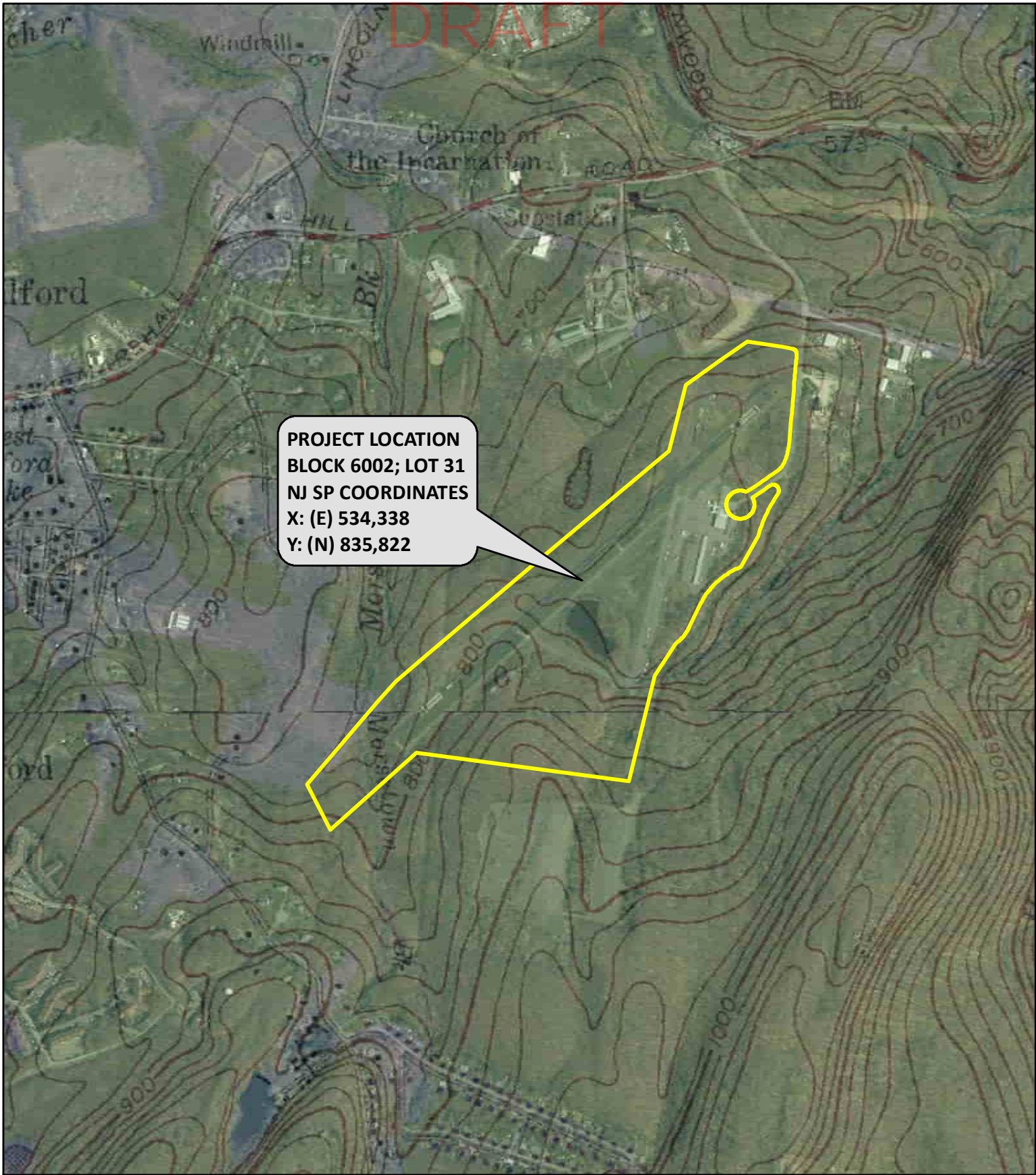



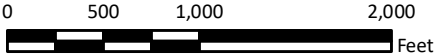

13. View northwest of freshwater wetland at approx. flag H-19.



14. View north along freshwater wetland delineation line at approx. flag. H-20.





	<b>GREENWOOD LAKE AIRPORT OBSTRUCTION REMOVAL</b>		
	<b>NEW JERSEY DEPARTMENT OF TRANSPORTATION</b>	<b>USGS GREENWOOD LAKE NJ/NY &amp; WANAQUE NJ</b>	
SOURCE: NJOGIS; USGS	Scale: 1:12,000 1" = 1,000' 	 412 Mt. Kemble Avenue P.O. Box 1936 Morristown, NJ 07960	<b>FIGURE-1</b>



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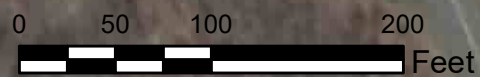







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BLOCK: 6002  
LOT: 18.01



BLOCK: 6002  
LOT: 31



	<b>GREENWOOD LAKE AIRPORT NORTHSIDE FRESHWATER WETLAND DELINEATION</b>		<b>FIGURE 3</b>
	 Passaic Co. Parcels	 Streams SWQ	
	 Jacobs 2021 Wetland Delineation	 ASG Delineation	