ENVIRONMENTAL ASSESSMENT (EA)
FOR RUNWAY 10-28 TREE OBSTRUCTION REMOVAL
GREATER ROCHESTER INTERNATIONAL AIRPORT (ROC)

FAA AIP NO. 3-36-0102-103-2019
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Cover photo source: O'Connell Electric Company, 2020. Retrieved from https://www.oconnellelectric.com/projects/greater-rochester-international-airport-approach-lighting on January 3, 2020.

LIST OF ACRONYMS

ABBREVIATION	MEANING
AAC	Aircraft Approach Category
AC	Advisory Circular
ACS	American Community Survey
ADG	Airplane Design Group
AIP	Airport Improvement Program
APV	Approach Procedure with Vertical Guidance
ARC	Airport Reference Code
CEQ	Council on Environmental Quality
DME	Distance Measuring Equipment
EA	Environmental Assessment (Federal)
EPA	U.S. Environmental Protection Agency
FAA	Federal Aviation Administration
FAR	Federal Aviation Regulation
FEMA	Federal Emergency Management Agency
FPPA	Farmland Protection Policy Act
GPS	Global Positioning Systems
IFR	Instrument Flight Rules
ILS	Instrument Landing Systems
LIRL	Low Intensity Runway Lights
MIRL	Medium Intensity Runway Lights
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act of 1969
NOAA	National Oceanic and Atmospheric Administration
NPA	Non-Precision Approach
NPIAS	National Plan of Integrated Airport Systems
NRCS	Natural Resource Conservation Service
NYPA	New York Power Authority
NYSCC	New York State Canal Corporation
NYSDEC	New York State Department of Environmental Conservation
NYSDOT	New York State Department of Transportation
NYSOPRHP	New York State Office of Parks, Recreation and Historic Preservation
NWI	National Wetlands Inventory
PA	Precision Approach
PAPI	Precision Approach Path Indicator
RDC	Runway Design Code
ROC	Greater Rochester International Airport
SEQR	State Environmental Quality Review
TERPS	Terminal Instrument Procedures
TSS	Threshold Siting Surface
USACE	U.S. Army Corps of Engineers
USDA	U.S. Department of Agriculture
USDOT	U.S. Department of Transportation
USFWS	U.S. Fish & Wildlife Service
USGS	U.S. Geological Survey
VFR	Visual Flight Rules

1 INTRODUCTION

This Environmental Assessment (EA) documents the evaluation of potential impacts associated with tree removal and/or tree cutting at the Greater Rochester International Airport (ROC or "the Airport"), which is owned and operated by the Monroe County Airport Authority. The evaluation addresses tree obstruction removal for Runway 10-28 associated with the Federal Aviation Administration's (FAA) Federal Aviation Regulations (FAR) Part 77, Safe, Efficient Use, and Preservation of the Navigable Airspace and published U.S. Standards for Terminal Instrument Procedures (TERPS), which define the airspace surrounding runways. Objects that penetrate the airspace are classified as airspace obstructions and should be removed to safely accommodate approaching and departing aircraft. As the airspace surfaces extend well beyond the Airport's property boundary, this EA includes on and off-airport obstruction removal and mitigation review.

This EA was prepared to satisfy the requirements of the National Environmental Policy Act (NEPA) of 1969 and the New York State Environmental Quality Review Act (SEQR) in order to address potential impacts associated with the tree obstruction removal while providing the opportunity for public involvement and comments. The study was conducted in accordance with FAA guidelines to include the "*Environmental Desk Reference for Airport Actions*", FAA Order 5050.4B "*National Environmental Policy Act (NEPA) Implementing Instructions for Airport Actions*," and FAA Order 1050.1F "*Environmental Impacts: Policies and Procedures*." Since the project is partially federally-funded, the EA must comply with federal requirements (i.e., NEPA).

This EA includes the following sections:

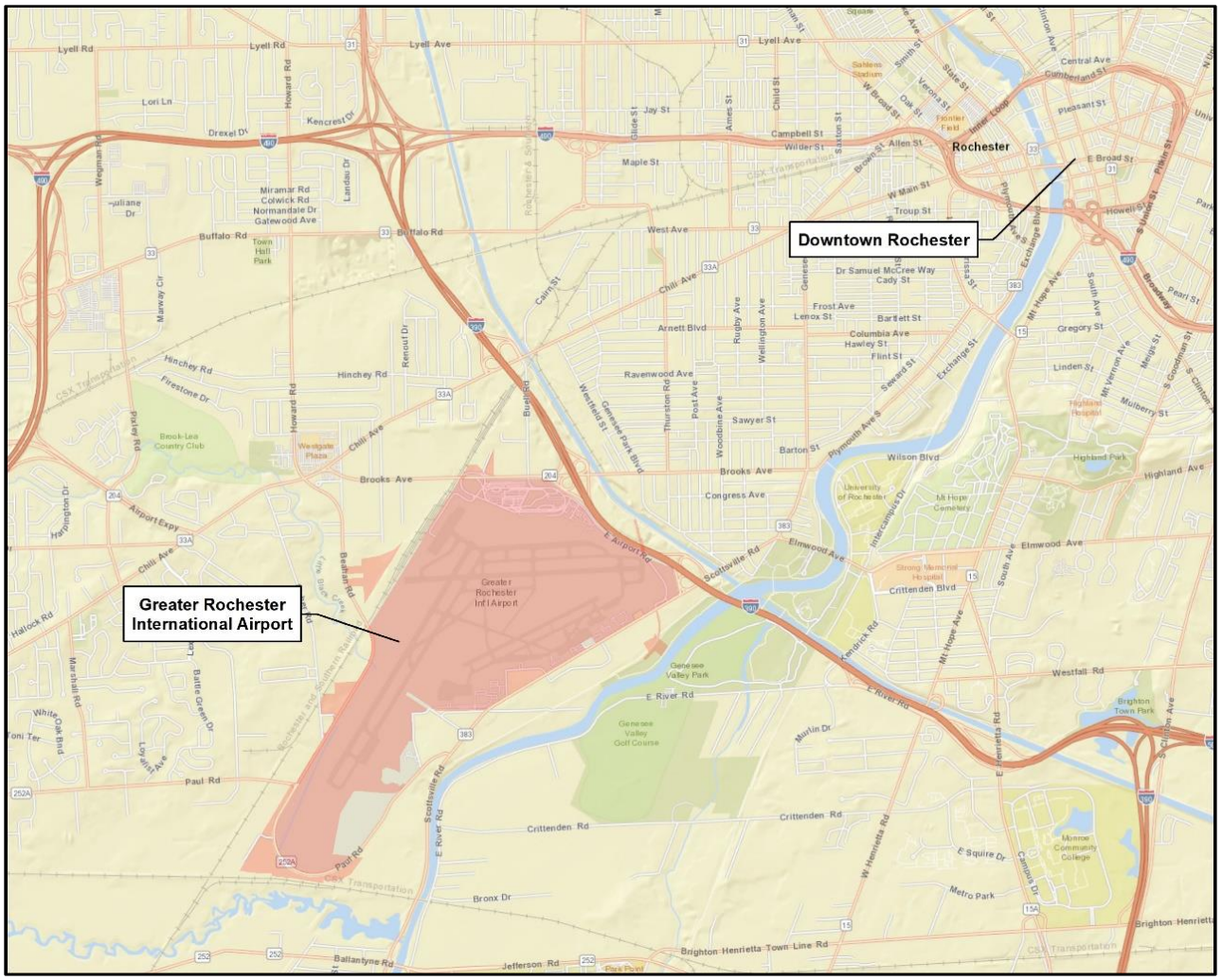
- Introduction
- Purpose and Need
- Alternatives Analysis and Proposed Action
- Affected Environment
- Environmental Consequences
- Public Outreach
- List of Preparers

1.1 PROJECT LOCATION AND EXISTING/SUBJECT FACILTIES

The Airport is a public use commercial airport that is owned and operated by the Monroe County Airport Authority. Covering approximately 1,193 acres, the Airport is located approximately four miles southwest of the City of Rochester in Monroe County (New York) and is accessible via Brooks Avenue West from Interstate 390. The Airport operates three runways: Runway 4-22, Runway 10-28, and Runway 7-25. Runway 4-22 is the Airport's primary runway with Runway 10-28 being its dependent intersecting crosswind runway. Runway 7-25 is a dependent runway located south of Runways 4-22 and 10-28. The subject of this EA is limited to tree obstruction removal associated with Runway 10-28 only.

Runway 10-28 is paved asphalt with dimensions 6,402 feet long by 150 feet wide. The runway is served by two partial parallel taxiways to the north and south; Taxiway B and H, respectively. The runway is further served by taxiway connectors at each runway end, including Taxiway C and E at Runway 10 and Taxiway B and P at Runway 28. Taxiway A, D, and F provide additional bypass taxiway access. Runway 10 is a non-precision approach equipped with a 4-unit precision approach path indicator (PAPI-4) for visual slope guidance. Runway 28 is a precision approach fully equipped with Instrument Landing Systems (ILS) with distance measuring equipment (DME) and global positioning systems (GPS), and a PAPI-4.

Regional Location



1.2 FAA DESIGN STANDARDS

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

The FAA categorizes aircrafts by maximum certificated takeoff weight in order to provide the most relevant airport design standards relative to the critical aircraft. The categories applicable to the Airport are large and small aircraft, which are defined in the FAA Advisory Circular (AC) 150/5300-13A, *Airport Design* as:

- **Large aircraft** is an aircraft with a maximum certificated takeoff weight of more than 12,500 lbs.
- **Small aircraft** is an aircraft with a maximum certificated takeoff weight of 12,500 lbs. or less.

Runway 10-28 at ROC is designated for Large Aircraft. Runway type is one design standard, among many others, that utilize these aircraft categories to define specific design standards relative to the design aircraft.

In order to maximize the utility of a runway, the FAA specifies that runways be designed according to the approach visibility category of its critical aircraft. The four approach visibility categories, or approach types, include visual, non-precision approach (NPA), approach procedure with vertical guidance (APV), or precision approach (PA). According to FAA AC 150/5300-13A, these approach visibility categories are defined as:

- **Visual runways** are designed to only support Visual Flight Rules (VFR) operations. These runways are unlighted or lighted with at least low or medium intensity runway lights (LIRL and MIRL, respectively) and have only visual (basic) runway markings. Visual runways are not designed to handle or anticipated to handle any Instrument Flight Rule (IFR) operations now or in the future, except circling approaches.
- **NPA runways** are designed to handle straight-in IFR approach operations to visibilities of 3/4 statute mile or greater and with only lateral guidance. These runways are lighted using at least LIRL or MIRL and have non-precision runway markings. NPA runways are generally at least 3,200 feet in length. At ROC, Runway 10 is an NPA runway.
- **APV runways** are designed to handle IFR approach operations where the navigation system provides vertical guidance and visibilities as low as 3/4 statute mile. These runways must be at least 3,200 feet in length and have at least MIRL with non-precision runway markings.
- **PA runways** are designed to handle IFR approach operations supporting instrument approach with HATh lower than 250 feet and visibility lower than 3/4 statute mile. Runways with an Instrument Landing Systems (ILS) are considered PA regardless of the visibility minimums. These runways must be at least 4,200 feet in length and lighted by HIRL and have precision runway markings. At ROC, Runway 28 is a PA runway.

Table 1 summarizes the design aircraft, runway type, approach type, and visibility minimum for each end of Runway 10-28.

Table 1 – Runway End Summary

RUNWAY END	DESIGN AIRCRAFT	RUNWAY TYPE	APPROACH TYPE	VISIBILITY MINIMUM
10	B737, A320	Large	NPA	5,500’
28	B737, A320	Large	PA*	4,000’

Source: ROC ALP 2019, CHA, 2019.
* Runway end 28 can be classified as either an APV or PA runway according to AC 150/5300-13A, however for this EA the PA approach type will be applied as it is the most demanding in providing a safe approach.

Airspace Obstructions

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

The FAA’s FAR Part 77, titled *Obstructions Affecting Navigable Airspace* are used to determine obstructions to air navigation and communication facilities. These are commonly referred to as “imaginary surfaces” and are established with relation to the airport and to each runway. The size of each such imaginary surface is based on the category of each runway according to the type of approach available or planned for that runway. The slope and dimensions of the approach surface applied to each end of a runway are determined by the most precise

approach procedure existing or planned for that runway end. The definitions of the Part 77 imaginary surfaces are listed below.

Horizontal Surface

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

Conical Surface

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

Primary Surface

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

Approach Surface

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

Transitional Surface

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

Table 2 summarizes the FAR Part 77 surface dimensions at the Airport.

Table 2 – FAR Part 77 Surface Dimensions (feet)

SURFACE	RUNWAY 10	RUNWAY 28
Primary Surface Width	1,000'	1,000'
Horizontal Surface Radius	10,000'	10,000'
Approach Surface Width at End	3,500’	16,000'
Approach Surface Length	10,000	50,000
Approach Procedure	Non-Precision	Precision
Approach Slope	34:1	50:1/40:1

Source: FAA FAR Part 77, CHA, 2019.

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

These obstruction clearing standards are defined in FAA AC 150/5300-13A Table 3-2[1], and determine the minimum obstruction removal required for any runway end. The clearing standards outlined in Table 3-2 are designed to protect the use of runway ends in both visual instrument meteorological conditions. The standards establish a runway end's approach surface, often referred as the threshold siting surface (TSS), that is required to be cleared of obstacle penetrations for safe operation of the runway end. The TSS is a trapezoidal area that extends away from the runway end along its centerline at a specific slope, starting point, and dimension relative to the six approach runway end types described in Table 3-2 (Types #1-6).

If a runway end accommodates, or is expected to accommodate, instrument approaches with vertical guidance then approach Type 6, will apply in addition to one of Types 1-5. A sixth approach runway end type (type #6) additionally applies. This sixth approach runway end type is commonly referred as the Glide Path Qualification Surface.

Table 3-2 also defines a departure surface that can be evaluated for any runway that commonly accommodates aircraft departures under Instrument Metrologic Conditions (IMC). For these runways, Type 7 defines the dimensions and size of the departure surface. It is noted that the departure surface is not required to be cleared; however, penetrations to the surface are used by FAA to place restriction of departures during poor weather conditions.

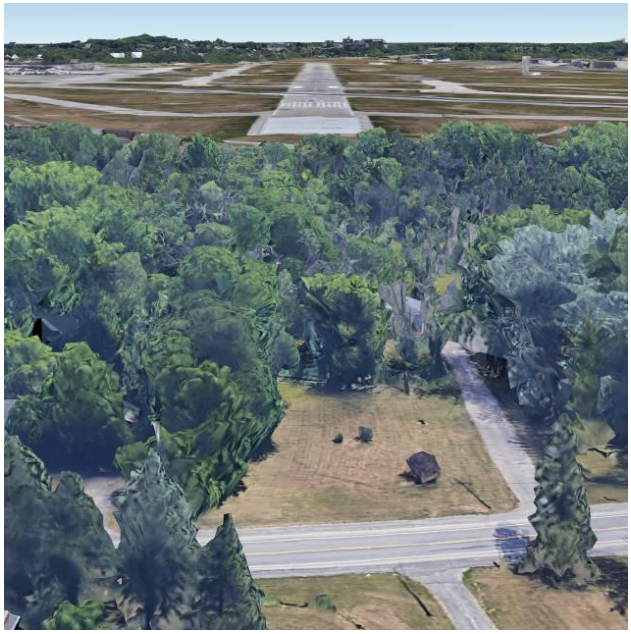
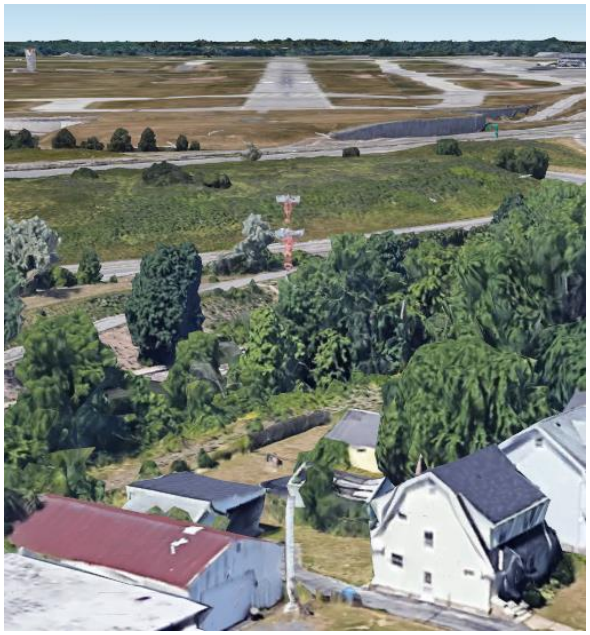
In locations off-airport property, where ROC does not own rights to clear all airspace penetrations, clearing the minimum design standards defined in the AC may be the most feasible alternative. As discussed in Section 3, various options are presented to review and recommend feasible alternatives.

[1] As of January 2020, changes to Table 3-2 of AC 150/5300-13A have been published in FAA Engineering Brief No. 99 (EB99). In the future, the FAA will incorporate the changes from EB99 into the AC 150/5300-13A.

2 PURPOSE AND NEED

Purpose: The purpose of the proposed tree obstruction removal project evaluated in this EA is to promote safety by bringing the Airport into compliance with FAA design standards and regulations regarding clear airspace.

Need: The FAA has established airspace and design criteria to provide for safe aircraft operations. In 2019, the Airport completed an obstruction study to evaluate its airspace. Based on the FAA design criteria, the results of this analysis identified existing safety deficiencies at the Airport, which includes multiple obstructions to the FAR Part 77 surfaces, TERPS surfaces, and airport design standards outlined in FAA AC 150/5300-13A. The results of this study identified that the Airport does not provide adequate clear airspace surfaces to its runways.

Runway 10 Approach	Runway 28 Approach
	

Source: Google Earth with 3D enabled. Runway 10 imagery dated 6/28/2018. Runway 28 imagery dated 9/22/2018. Note that the 3D representation of trees shown above is for illustrative purposes only and is not included in any part of the analysis of this EA.

3 ALTERNATIVES ANALYSIS AND PROPOSED ACTION

This chapter of the EA addresses the potential alternatives for tree obstruction removal regarding the Airport. The recent airport obstruction study identified substantial areas of tree obstructions in several locations surrounding the Airport. The ideal alternative from an aeronautical standpoint would be to remove all tree penetrations to the FAR Part 77 "Objects Affecting Navigable Airspace" and TERPS surfaces. However, as part of the scoping process for this study, it was determined that this approach would be impractical due to property rights and environmental concerns, and other alternatives would need to be developed.

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

3.1 ALTERNATIVES UNDER CONSIDERATION

As part of the effort to identify project alternatives, the recommendations from the 2019 Obstruction Study were considered, as well as agency comments and the concerns of affected parties and property owners. This coordination effort took into consideration both the environmental and socioeconomic impacts as well as costs, which were evaluated as part of the process to refine and develop the alternatives. The results of this refinement resulted in two alternatives plus the No Action option. All three are presented herein for consideration.

3.1.1 No Action Alternative

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

No Action Alternative:
Tree Obstructions would remain

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

Removal and Mitigation of the Airport Improvement Program (AIP), per Federal Statute 49 U.S.C., Section 47101.

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

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

No Action Alternative	
Goal(s): This option minimizes environmental impacts as it takes no action to remove, lower, mark, or mitigate existing or potential future airspace tree obstructions.	
Description: Tree obstructions have been identified beyond each of the runway ends. These presumed hazards would remain in place, and potentially increase in size and penetration with additional tree growth.	
Advantages	Disadvantages
• No wetland impacts (temporary or permanent) • No impacts to parkland or recreational facilities • No impacts or disturbance to property owners • No project costs	• Retains potential hazards to airport users • Retains a potential hazard to people and property on the ground surrounding the Airport • Does not comply with FAA design standards or grant assurances • Risks future FAA funding for improvements to the Airport

3.1.2 Full Tree Obstruction Removal Alternative

The Full Tree Obstruction Removal Alternative would clear all tree obstructions to the FAR Part 77 Approach and Transitional Surfaces. These surfaces are generally the most encompassing for approach protection, whereas if cleared, it would generally assure clearance of other airspace surfaces (e.g., TERPS, threshold siting surface, PAPI Obstacle Clearance Surface, etc.).

The Part 77 Approach Surface is trapezoidal in shape, and extends away from the runway along the centerline at a specific slope, as discussed previously. The specific size and slope depends upon the aircraft served and visibility minimums of the runway end. Runway 28 is equipped with an ILS, and therefore, has a relatively flat 50:1 slope Part 77 Approach Surface, which results in penetrations over a large area, and hundreds of private properties. Runway 10 offers a non-precision, GPS-based approach, and therefore, has a less restrictive 34:1 slope Part 77 Approach Surface. Due to the presence of an ILS on Runway 28, an additional approach surface called the Glide Path Qualification Surface must be considered for penetrations and obstructions, which has a moderately restrictive 30:1 slope.

The figures included in Appendix A for each runway end illustrate the Approach Surfaces, with red dots depicting tree penetrations to the Approach Surface, and yellow dots for obstructions to the Transitional Surface. These dots represent the most critical obstructions only, there are likely many more trees penetrations than shown by the dots. As such, in order to remove all tree obstructions per this alternative, comprehensive tree clearing (shown in yellow shading) would be necessary in all locations where these dots are present. In other words, the colored dots (red and yellow) indicate locations of tree obstructions to the Part 77 surfaces, which would be removed

under the Full Obstruction Removal Alternative. Penetrations and/obstructions to the Glide Path Qualification Surface are illustrated as green dots. Lastly, penetrations and/or obstructions to the Threshold Siting Surface are illustrated as blue dots, which is discussed in the proceeding section.

The majority of penetrations at the Airport are located within parcels owned by ROC or within parcels owned by the New York State Department of Transportation (NYSDOT) or the New York State Canal Corporation (NYSCC). NYSDOT and NYSCC lands are collectively referred to as "state-owned lands" throughout this EA. The remaining penetrations are located within residential or other private parcels. Furthermore, this alternative would result in a significant number of off-airport property within the City of Rochester and the Town of Chili. For tree removals on residential and other private parcels, permanent 'avigation' easements are typically required. Avigation easements refer to a permanent conveyance of airspace, from a property owner to the Airport, granting the Airport the right to overfly the property and remove obstructions to a defined airspace surface. These easements involve appraisals, negotiation with the individual property owner, and acquisition of the perpetual rights to remove existing tree obstructions and prevent future obstructions.

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

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

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

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

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

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

Full Tree Obstruction Removal Alternative	
Goal(s): This option removes all penetrations to the FAR Part 77 Approach and Transitional Surfaces.	
Description: A full removal of tree obstructions to the inner airspace surfaces, including areas off-airport properties. This alternative provides maximum benefit to airport users and safety enhancement.	
Advantages	Disadvantages
• Clears most defined aeronautical surfaces • Satisfies federal design standards and assurances • Full removal of potential hazards to airport users • Improves safety for people and property on the ground surrounding the Airport	• Potential for impacts to wetlands (temporary or permanent) • Substantial coordination and negotiation needed with property owners • The need for numerous avigation easements may prevent successful completion of project and significantly extend the required schedule • High project costs • Successful completion is questionable

3.1.3 Modified Tree Obstruction Removal Alternative

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

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

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

For distinguishing purposes, this surface is often referred to as the Threshold Siting Surface, as not to be confused with the Part 77 Approach Surface. The Threshold Siting Surface is designed to protect use of the runway in both visual and instrument meteorological conditions. Like the Part 77 Approach Surface, it is trapezoidal in shape and extends outward and upward from the runway along the centerline at a specific slope. However, the Threshold Siting Surface is steeper in slope than the Part 77 Approach Surface, which reduces the size of the clearing area, and may also be smaller in size. The specific slope and size depend upon the aircraft served and visibility minimums of the runway end. In addition, for runways with displaced landing thresholds, the Threshold Siting Surface is located based on the displacement, as opposed to the runway end, and thus both surfaces are shown. Moreover, Runway 10-28 has a Threshold Siting Surface slope of 20:1.

Displaced thresholds are present on both ends of Runway 10-28 at the Airport; Runway 10 is displaced 298 feet and Runway 28 is displaced 600 feet. Further, the Threshold Siting Surface for Runway 10-28 is steeper than the

associated Part 77 Approach Surface, which reduces the penetrations and removal area compared to the Full Tree Obstruction Removal Alternative. Penetrations to the Threshold Siting Surface are illustrated as blue dots on the figures in Appendix A. However, as most Threshold Siting Surface penetrations are also penetrations to the Part 77 surfaces, the majority are shown as red dots for penetrations and yellow dots for obstructions, respectively. Lastly, penetrations and/obstructions to the Glide Path Qualification Surface are illustrated as green dots as discussed in the previous section.

The figures in Appendix A illustrate the Modified Tree Obstruction Removal Alternative using yellow shading as the preferred clearing area. In other words, yellow shading indicates locations of obstructions to the threshold surfaces, which would be removed under the Modified Tree Obstruction Removal Alternative. Similar to the other alternatives, for tree removals on private parcels, permanent 'avigation' easements are typically required. These easements involve appraisals, negotiation with the individual property owner, and acquisition of the perpetual rights to remove existing tree obstructions and prevent future obstructions. A summary of the removal area under this alternative is provided below:

- **Runway 10:** Includes proposed tree removal to penetrations of the Part 77 Approach Surface within Airport property and a small triangle batch of trees within utility right-of-way, and tree removal to penetrations of the Threshold Siting Surface outside Airport property located east of Beahan Road. Within the residential areas, trees generally create a solid canopy with some smaller understory trees. During the design process, the Airport would work with property owners to refine the removals, and reduce clearing where desired if the penetrations are at least 10 feet below the Threshold Siting Surface.

- **Runway 28:** Includes proposed tree removal to penetrations of the Part 77 Approach Surface within Airport and state-owned property located north of Scottsville Road on both sides of the Erie Canal. Additionally, some of the residential properties on Kingsboro Road include a small number of penetrations.

As with the Full Tree Obstruction Removal Alternative, the Modified Tree Obstruction Removal Alternative would employ the same removal methods and techniques to minimize impacts, and may include:

- Removal of all sizable trees, but retaining small trees and underbrush.
- Tree stumps would be left in place to minimize ground disturbance and potential erosion.
- On residential properties, removal of tall trees only, with stump grinding, top soil placement and seeding.
- Removals will be conducted in coordination with State and Federal regulatory agencies and follow techniques or procedures defined during the permitting process.

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

Modified Tree Obstruction Removal Alternative	
Goal(s): This option removes penetrations to the FAA Threshold Siting Surface in off-airport locations (and to FAR Part 77 Approach Surface on-airport)	
Description: A reduced removal alternative intended to clear the critical penetrations to the runway approaches to maintain operational safety, while minimizing the impact to off-airport properties and the natural environment.	
Advantages	Disadvantages
• Clears the critical obstructions • Satisfies federal design standards and assurances • Improves safety for people and property on the ground surrounding the Airport • Reduces impacts to environmental resources • Reduces the number of affected property owners • Streamlines the project schedule and reduces costs	• Potential impacts to wetland remain present • Easements are required with property owners • Less critical obstructions will remain

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

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

3.2 ALTERNATIVES CONSIDERED AND DISMISSED

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

- Clear Cutting and Providing a Maintainable Surface – The Full and Modified alternatives described above remove tree obstructions; however, these locations will need to be maintained or the trees will eventually grow back. As an alternative, once trees are cut, the root balls could be pulled, and the area graded and seeded. Thereafter, the Airport would maintain the area as an open field with regular mowing or annual brush cutting. This option was eliminated from consideration in off-airport locations as grading the tree clearing areas would have a permanent impact to any wetlands, sensitive biological habitat, and recreational areas, and archeological resources. This alternative is also very costly.

- Displaced Thresholds – The displacement of a runway's landing location (i.e., threshold) is often used to reduce the amount of tree penetrations to the Threshold Siting Surface. Currently, both runway ends have displaced thresholds. Adding additional displaced threshold length could reduce the need for tree clearing. However, displaced thresholds reduce the landing length available for airport users. As such, this alternative was considered but dismissed. Further reducing the available landing length would diminish the existing capability of the Airport.

3.3 PROPOSED ACTION

Based on the evaluation identified in this section, and review by the Airport and FAA, the Modified Tree Obstruction Removal Alternative has been chosen as the "Preferred Alternative" for the Airport. This determination is primarily related to the Full Tree Obstruction Removal Alternative being considered not practical nor feasible from an environmental, logistical, and cost standpoint. The No Action Alternative is also not considered appropriate as it does not address the safety of airport users and does not satisfy FAA requirements or obligations.

The remainder of this EA document focuses on the evaluation of potential impacts of the Proposed Action. The goal of the evaluation is to enable the FAA to determine if the impacts of the Proposed Action are significant, or could be implemented without significant impact.

4 AFFECTED ENVIRONMENT

This chapter describes the environment that may be affected by the Proposed Action (referred to as "the project"). The Proposed Action consists of a western and eastern project area located beyond of the ends of Runway 10 and Runway 28, respectively (collectively referred to as "the project areas"). The information provided in this chapter serves as the basis for the assessment of potential environmental, social, and economic impacts in Chapter 5.

The sections below include the following:

- Land Use, Zoning and Property Ownership
- Federal Jurisdictional Wetlands
- Threatened and Endangered Species
- Cultural and Historic Resources
- Section 4(f) Lands

4.1 LAND USE, ZONING AND PROPERTY OWNERSHIP

The project areas are located within the Town of Chili and the City of Rochester, as shown in **Figure 1** and **Figure 2**; United States Geological Survey (USGS) topographic map and aerial, respectively. A variety of land uses encompass the project areas, including Residential, Public Services, Vacant Lands, and Wild, Forested, Conservation Lands and Public Parks (**Figure 3**). Further, the eastern project area also includes the Erie Canal and Erie Canal Trail.

Erie Canal

Figure 1 – USGS Project Location

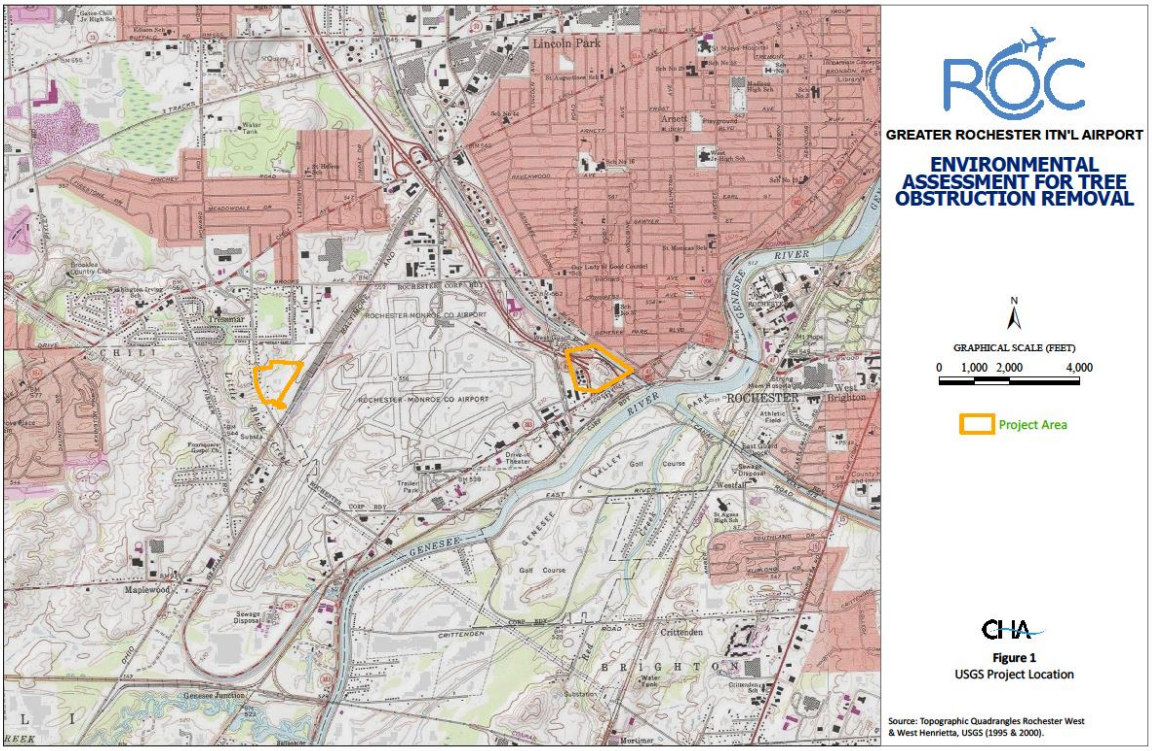


Figure 2 – Aerial Location

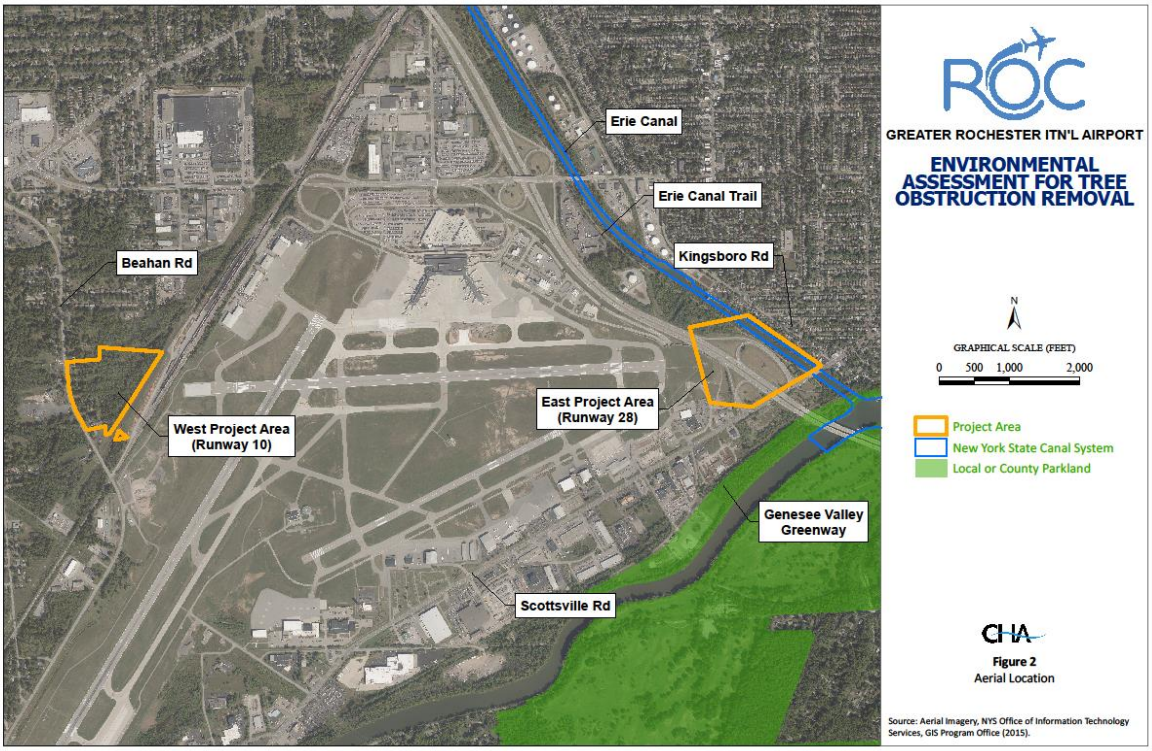
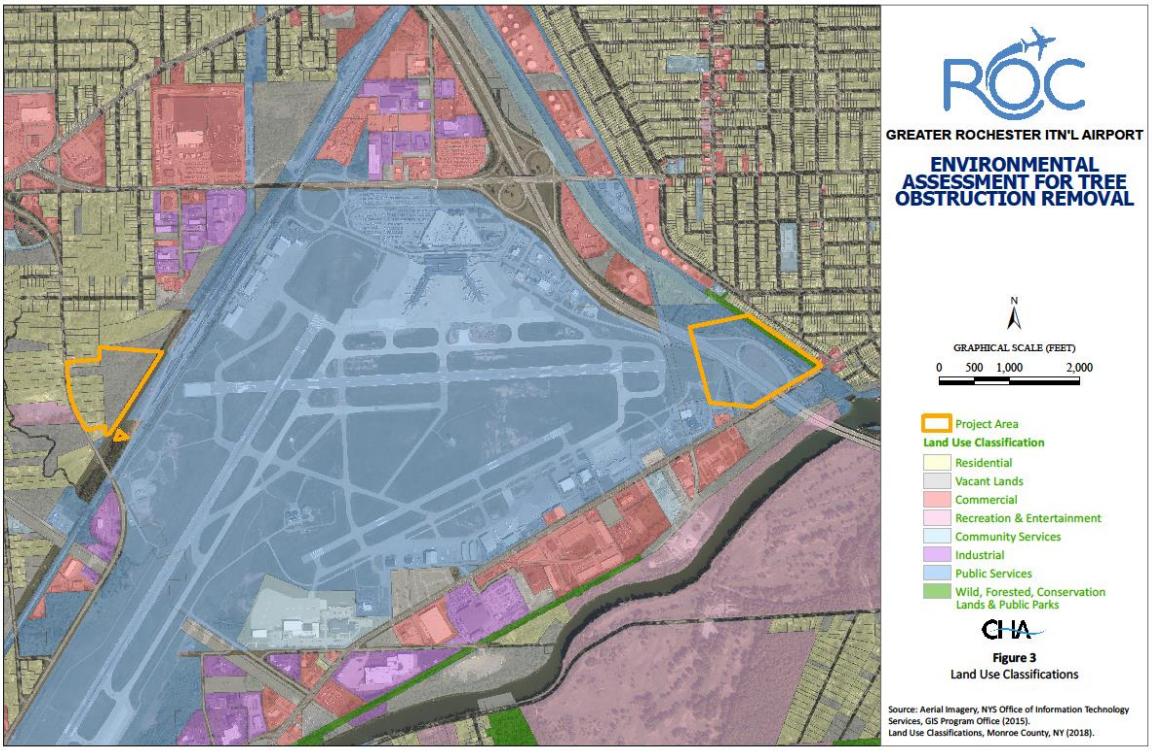


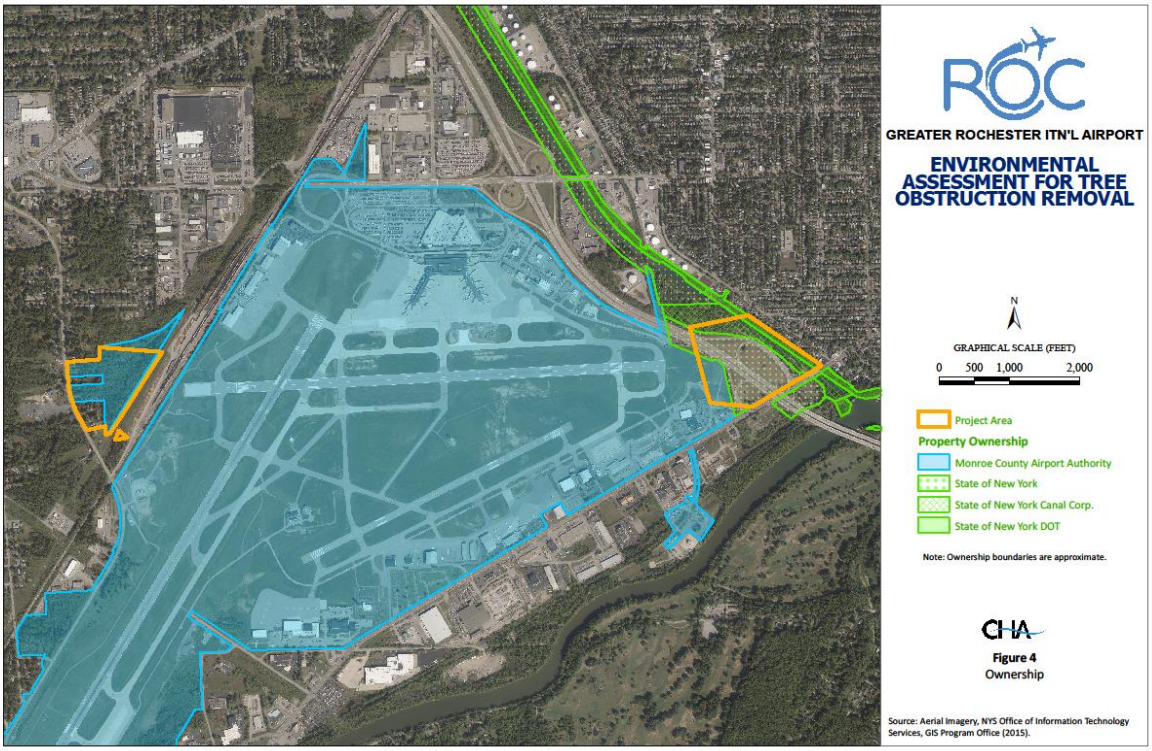
Figure 3 – Land Use Classifiations



The project area within the City of Rochester is zoned as R-1- Low-Density Residential District and O-S -Open Space District; the project area within the Town of Chili is zoned as General Industrial and RAO- Rural Agriculture Overlay. The Town of Chili has an Airport Development Overlay District; per the zoning code, this district limits the heights of structures within the vicinity of the Airport and assures that the land use and land subdivision near the Airport will not subject undue concentrations of people to aircraft crash hazards, noise or other adverse impacts of airport operations.

In regard to property ownership, the project area includes lands owned by ROC, NYSCC, NYSDOT, and private individuals. **Figure 4** illustrates the distribution of ROC and state-owned property.

Figure 4 – Ownership

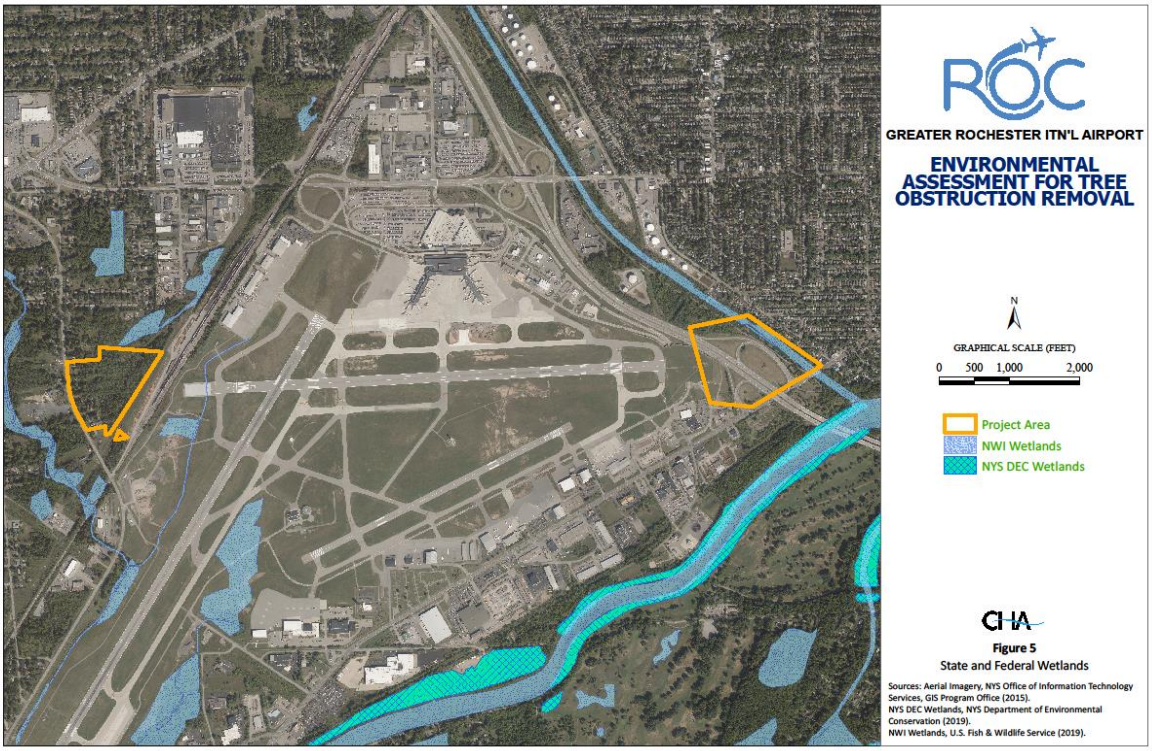


4.2 FEDERAL JURISDICTIONAL WETLANDS

To understand the extent of the wetland resources within the project areas, a wetland delineation was completed by CHA on October 21-22, 2019. Wetlands were delineated pursuant to the United States Army Corps of Engineers (USACE) 1987 Wetland Delineation Manual and current regional supplement. Refer to **Appendix B** for a copy of the Wetland Delineation Report.

Prior to visiting the project areas, the New York State Department of Environmental Conservation (NYSDEC) Freshwater Wetlands Map and the United States Department of the Interior, Fish and Wildlife Service (USFWS), National Wetlands Inventory (NWI) map were reviewed (**Figure 5**). No mapped NYSDEC freshwater wetlands or 100-foot Adjacent Areas are shown within the project areas. Review of the NWI map indicates the eastern project area is transected by the Erie Canal, which is mapped on the NWI as a limnetic feature. Review of the NWI map indicates there are no mapped NWI wetlands within the western project area, however an NWI wetland is located to the north.

Figure 5 – State and Federal Wetlands



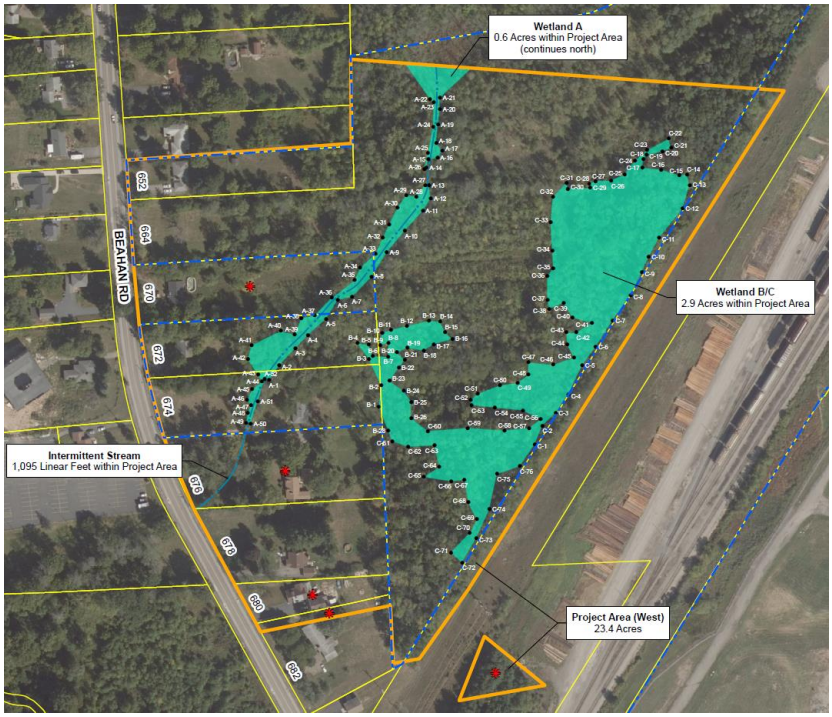
The wetland boundaries were determined in the field based on the three parameter approach, whereby an area is a wetland if it exhibits vegetation adapted to wet conditions (hydrophytes), hydric soil indicators, and the presence or evidence of water at or near the soil surface during the growing season (hydrology).

Vegetative community types within the project areas are described according to *Ecological Communities of New York State, Second Edition* (Edinger 2014)[2] and *Classification of Wetlands and Deepwater Habitats of the United States* (Cowardin 1979)[3].

Delineated features in the western project area include Wetland A (emergent linear wetland), Wetland B/C (forested wetland), and an intermittent stream traversing Wetland A (**Figure 6**). No features were delineated in the eastern project area, however the limits of the Erie Canal and several drainage swales associated with the highway interchanges were identified by aerial image interpretation.

[2] Edinger, G. J., D. J. Evans, S. Gebauer, T. G. Howard, D. M. Hunt, and A. M. Olivero (editors). 2014. *Ecological* Communities *of New York State*. Second Edition. A revised and expanded edition of Carol Reshke's *Ecological Communities of New York State*. New York Natural Heritage Program, New York State Department of Environmental Conservation, Albany, NY.
[3] Cowardin, L. M., V. Carter, F. C. Golet, E. T. LaRoe, 1979. *Classification of wetlands and deepwater habitats of the United States*. U. S. Department of the Interior, Fish and Wildlife Service, Washington, D.C.

Figure 6 – Delineated Wetlands in Western Project Area



Wetland A is a linear shallow emergent marsh, with an intermittent stream that flows through it. Wetland A contains species such as rice cutgrass (*Leersia oryzoides*), water horehound (*Lycopus americanus*), green bulrush (*Scirpus atrovirens*), cattail (*Typha latifolia*), moneywort (*Lysimachia nummularia*) and silky dogwood (*Cornus amomum*). Observed hydrology indicators included surface water (A1), high water table (A2), saturation (A3), oxidized rhizospheres on living roots (C3), thin muck surface (C7), geomorphic positioning (D2) and a positive FAC-Neutral Test (D5). The hydric soil indicator is redox dark surface (F6).

Intermittent Stream

Wetland B/C is red maple-hardwood swamp and silver maple-ash swamp. Wetland B/C contains species such as green ash (*Fraxinus pennsylvanica*), red maple (*Acer rubrum*), silver maple (*Acer saccharinum*), buckthorn (*Rhamnus cathartica*), eastern cottonwood (*Populus deltoides),* American elm (*Ulmus americana*), silky dogwood, arrowwood (*Viburnum dentatum*), red osier dogwood (*Cornus alba*), multiflora rose (*Rosa multiflora*), wrinkleleaf goldenrod (*Solidago rugosa*), giant goldenrod (*Solidago gigantea*), sensitive fern (*Onoclea sensibilis*) and common reed (*Phragmites australis*). Observed hydrology indicators included surface water (A1), high water mark (A2), saturation (A3), water-stained leaves (B9), moss trim lines (B16), geomorphic position (D2) and a positive FAC-Neutral Test (D5). The hydric soil indicator is redox dark surface (F6).

The Erie Canal, a perennial stream lined by concrete on each bank within the project area, is approximately 100 feet wide and flows approximately 1,337 feet through the eastern project area.

The Proposed Action proposes the removal of trees within 3.5 acres of the delineated wetlands. It should be noted that CHA did not have access to all areas within the project area limits, those areas have been identified on the Wetland Delineation Maps found in the Wetland Delineation Report (**Appendix B**).

Section 5.7 further discusses wetland impacts and permitting.

4.3 THREATENED AND ENDANGERED SPECIES

The USFWS Information for Planning and Conservation (IPaC) website was reviewed for federally listed species. The website indicated that there are no threatened, endangered, or candidate species listed for the project areas. Additionally, no critical habitats were identified within the project areas (**Appendix C**).

The NYSDEC Environmental Resource Mapper (ERM) was reviewed. No threatened or endangered species are mapped within the western project area (**Appendix C**); however, the ERM indicates that the eastern project area is in the vicinity of rare freshwater mussels not listed by New York State. Therefore, The NYSDEC Natural Heritage Program (NHP) was contacted to see if any rare or state listed animals or plants, or significant natural communities are mapped within the eastern project area. A response was received from the NHP dated October 2, 2019, indicating the potential presence of two unlisted species, including the pink heelsplitter (*Potamilus alatus*) and the fragile papershell (*Leptodea fragilis*). These species are present in the Genesee River, 0.2 miles south of the eastern project area. No state listed animals or plants, or significant natural communities were identified within or in the immediate vicinity of the project areas (**Appendix C**).

According to the USGS Fact Sheet for the pink heelsplitter, this species can be found in rivers and lakes of various sizes and speeds with sand to coarse gravel bottom[4]. The USGS Fact Sheet for the fragile papershell indicates that this species can be found in moderate to large rivers with silty mud bottoms, sand and gravel, sand and silty sand[5]. As noted above, an intermittent stream was identified in the western project area and the Erie Canal is present within the eastern project area. The pink heelsplitter and the fragile papershell are present in the Genesee River, which is not included in the project areas, therefore, the habitat for these species would not be impacted.

Based on review of the National Oceanic and Atmospheric Administration (NOAA) National Marine Fisheries Service Essential Fish Habitat (EFH) Mapper, there are no EFH's, Habitats of Concern, or EFH areas protected from fishing located within the project areas.

A field investigation was completed by CHA on October 21-22, 2019 to document the habitats within the project areas. Vegetative communities identified within the project areas consist of shallow emergent marsh, red maple-hardwood swamp, silver maple-ash swamp, successional old field, mowed lawn, mowed lawn with trees, mowed roadside/pathway, successional northern hardwoods and spruce/fir plantation.

Descriptions of the emergent and forested wetlands can be found in **Section 4.2**, above.

The successional old field contains species such as milkweed (*Asclepias syriaca)*, staghorn sumac (*Rhus typhina)*, mugwort (*Artemisia vulgaris)*, grasses, black raspberry (*Rubus occidentalis*), honeysuckle (*Lonicera tatarica)*,

[4] Benson, A.J., 2019, *Potamilus alatus*: U.S. Geological Survey, Nonindigenous Aquatic Species Database, Gainesville, FL, https://nas.er.usgs.gov/queries/FactSheet.aspx?speciesID=2241, Revision Date: 9/1/2017, Access Date: 10/14/2019.
[5] Benson, A.J., 2019, *Leptodea fragilis*: U.S. Geological Survey, Nonindigenous Aquatic Species Database, Gainesville, FL, https://nas.er.usgs.gov/queries/factsheet.aspx?SpeciesID=2239, Revision Date: 9/1/2017, Access Date: 10/14/2019.

Canada thistle (*Cirsium arvense)*, goldenrod (*Solidgo sp*.), grape (*Vitis sp*.), pokeweed (*Phytolacca americana)* and box elder (*Acer negundo*).

The mowed lawn areas contain grasses and species such as common plantain (*Plantago major*), English plantain (*Plantago lanceolata*) and dandelion (*Taraxacum officinale)*. These areas have scattered trees that have less than 30 percent coverage. Some of those tree species include sugar maple ((*Acer saccharum*), Norway maple (*Acer platanoides)*, thornless honey locust (*Gleditsia triacanthos f. inermis*) and red pine (*Pinus resinosa).*

The mowed lawn with trees area contains species such as grasses, white clover (*Trifolium repens*), dandelion, English plantain, common plantain and ground ivy (*Glechoma hederacea)*. These areas are shaded with at least 30% cover in trees. Some of these tree species include white poplar (*Populus alba*), cottonwood, sugar maple and white pine (*Pinus strobus*).

The mowed roadside contains species such as Kentucky blue grass (*Poa pratensis*), queen Anne's lace (*Daucus carota*), spotted knapweed (*Centaurea stoebe)*, mugwort, common hawkweed (*Hieracium lachenalia)*, dandelion and English plantain.

The successional northern hardwoods contain species such as buckthorn, sugar maple, quaking aspen (*Populus tremuloides*), Norway spruce (*Picea abies*), green ash, Norway maple, black walnut (*Juglans nigra)*, box elder, white pine, scotch pine (*Pinus sylvestris)*, cottonwood, autumn olive (*Elaeagnus umbellata*), gray dogwood (*Cornus racemosa*), multiflora rose, Japanese knotweed (*Reynoutria japonica*), honeysuckle, grape, and vetch species (*Vicia sp*.).

The spruce/fir plantation consists of a stand of Norway spruce with a sparse ground layer within the western project area.

Examples of wildlife anticipated to be found within the project areas include gray squirrel (*Sciurus carolinensis*), American woodcock (*Scolopax minor),* red squirrel (*Sciurus vulgaris*), eastern chipmunk (*Tamias striatus*), white-tailed deer (*Odocoileus virginianus*), woodchuck (*Marmota monax*), raccoon (*Procyon lotor*), opossum (*Didelphis virginiana*), eastern cottontail (*Sylvilagus floridanus*), a variety of rodents, green frog (*Lithobates clamitans melanota),* American toad (*Anaxyrus americanus)*, spring peeper (*Pseudacris c. crucifer)*, and eastern garter snake (*Thamnophis s. sirtalis*). Additionally, aquatic organisms, minnows, fish, various birds, a variety of butterflies, moths, and other insects are likely present.

4.4 CULTURAL AND HISTORIC RESOURCES

The New York State Office of Parks, Recreation and Historic Preservation (NYSOPRHP) Cultural Resource Information System (CRIS) was reviewed. The CRIS indicates that the eastern project area is within an area designated as archeologically sensitive. Additionally, the project area includes trees that are within or abutting the New York State Barge Canal Historic District (NR Number 14NR06559).

The Proposed Action was submitted to the NYSOPRHP CRIS on November 14, 2019. The NYSOPRHP responded in a letter dated December 10, 2019, indicating that the Proposed Action will have No Adverse Effect (**Appendix D**).

The Seneca Nation of Indians and the Tonawanda Band of Seneca were contacted to request their comments on any potential impacts to historic properties that the tribes may attach religious and cultural significance. The Seneca Nation of Indians indicated in an email on December 3, 2019, that they wish to be included on future correspondence. No further comments were made. To date, the Tonawanda Band of Seneca has not responded. Refer to **Appendix D** for further details.

4.5 SECTION 4(F) LANDS

Section 4(f) of the United States Department of Transportation (USDOT) Act of 1966 requires the approval of the Secretary of Transportation for any project that impacts publicly owned land such as a public park, recreation area, or wildlife refuge of national, state, or local significance or a historic site of national, state or local significance.

Genesee Valley Park is not within the project area but is to the south of the eastern project area. The eastern project area includes the Erie Canal Trail (**Figure 2**). Therefore, the NYSOPRHP reviewed the Proposed Action and indicated that the Proposed Action will have No Adverse Effect. Additionally, the NYSCC and New York Power Authority (NYPA) have been asked to provide comment on the project (**Appendix D**). To date, responses have not been received.

Erie Canal Trail

5 ENVIRONMENTAL CONSEQUENCES

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

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

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

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

5.1 AIR QUALITY

5.1.1 Impact of the No Action Alternative

No tree obstruction removal would occur with this alternative, therefore, there would be no impact to air quality.

5.1.2 Impact of the Proposed Action

The Proposed Action was evaluated under the Aviation Emissions and Air Quality Handbook published by the FAA. The project does not include the installation of any emission sources and would not cause permanent increases in air or local traffic. Temporary increases in emissions from construction equipment were estimated and found not to be significant. As a result, there would be no impact to air quality from the Proposed Action. The detailed air quality evaluation and emission estimate is located in **Appendix E**.

5.2 COASTAL RESOURCES

5.2.1 Impact of the No Action Alternative

As discussed below, there are no coastal resources within the project areas, therefore, there would be no impact to coastal resources.

5.2.2 Impact of the Proposed Action

The New York State Coastal Management Program protects the state's valuable natural and man-made resources. Based on review of the New York State Coastal Boundary Map, the project areas are not located within a designated Coastal Zone. Additionally, based on review of the Coastal Barrier Resources System Mapper, the project areas are not within an area mapped as coastal barrier. Therefore, there would be no impact to designated coastal areas as a result of the Proposed Action. No additional evaluation is necessary.

5.3 COMPATIBLE LAND USE

5.3.1 Impact of the No Action Alternative

No tree obstruction removal would occur with this alternative, therefore, there would be no impact to land use.

5.3.2 Impact of the Proposed Action

As discussed in Section 4.1, the project is within the Town of Chili and the City of Rochester. The mapped land uses within the eastern project area include Public Services, and Wild, Forested, Conservation Lands & Public Parks. The area identified as Wild, Forested, Conservation Lands & Public Parks is NYSDOT-owned forested land along a narrow strip of property between residential properties along Kingsboro Road and the Erie Canal; this area does not contain publicly-accessible parkland or trails. The eastern project area also includes the Erie Canal Trail. The mapped land uses within the western project area include Residential and Vacant Lands (**Figure 3**).

The project area within the City of Rochester is zoned as R-1- Low-Density Residential District and O-S -Open Space District and the project area within the Town of Chili is zoned as General Industrial and RAO- Rural Agriculture Overlay.

In regard to property ownership, the project areas are primarily owned by ROC, NYSDOT, and NYSCC (**Figure 4**).

The Proposed Action would not change the existing land uses within the project areas, or alter Airport operations or flight patterns. Therefore, there would be no impact to land uses or zoning, including the existing and future use of the parcels due to the removal of tree obstructions.

5.4 CONSTRUCTION IMPACTS

5.4.1 Impact of the No Action Alternative

No tree obstruction removal would occur with this alternative, therefore, there would be no construction impacts.

5.4.2 Impact of the Proposed Action

Potential construction impacts from the Proposed Action would be temporary and not expected to be significant. These activities may produce temporary environmental disturbances, such as noise from equipment, air quality impacts from dust, minor soil erosion and sedimentation, and minor disruption of local traffic patterns. These impacts can be mitigated through careful planning and consideration, as well as quality construction supervision. Specifically, there would be limitations on time and day of construction, limitations on time of year (i.e. winter removals), use of appropriate certified equipment, and use of approved safety and phasing plans.

5.4.2.1 Noise

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

5.4.2.2 Air Quality

Air quality impacts during construction would be limited to short-term increases in fugitive dust, particulates, and localized pollutant emissions from construction vehicles and equipment. As stated above, all construction equipment would be properly maintained and outfitted with emission reducing exhaust equipment. Adherence to the soil and erosion control plan would mitigate any potential impacts.

5.4.2.3 Sedimentation and Erosion

The potential for erosion during selective removal of obstructions is minimal since small trees and ground cover would remain, and no new impervious surfaces would be created. Adherence to the erosion control plan would further mitigate any potential impacts.

5.4.2.4 Traffic

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

5.5 U.S. DEPARTMENT OF TRANSPORTATION ACT: SECTION 4(F)

5.5.1 Impact of the No Action Alternative

No tree obstruction removal would occur with this alternative, therefore, there would be no impact to Section 4(f) lands.

5.5.2 Impact of the Proposed Action

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

The Proposed Action involves the removal of tree obstructions in order to maintain a safe, navigable airspace beyond the ends of Runway 10-28, including trees along the Erie Canal Trail. Public use and access to the trail would remain unchanged, and no property takings would occur. Further, the project would not adversely affect the activities, features or attributes that qualify the parkland for protection under Section 4(f).

Properties in the vicinity of the trail are owned by the NYSDOT or NYSCC. For these lands, tree removal would include clearing, but not grubbing (i.e. retention of the stumps and root balls) of all trees over 10 feet in height. Small trees and understory would be retained, with the goal to preserve the property as an undeveloped meadow and scrub shrub community.

Although tree removal would not directly impact public use of the trail or take any property, coordination was conducted with the NYSOPRHP, NYSCC, and NYPA. The NYSOPRHP responded in a letter dated December 10, 2019 indicating that the Proposed Action will have No Adverse Effect. To date, the NYSCC and NYPA have not responded. Therefore, the project will have no significant impact to 4(f) lands as a result of the obstruction removal.

5.6 FARMLAND

5.6.1 Impact of the No Action Alternative

No tree obstruction removal would occur with this alternative, therefore, there would be no impact to farmland.

5.6.2 Impact of the Proposed Action

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

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

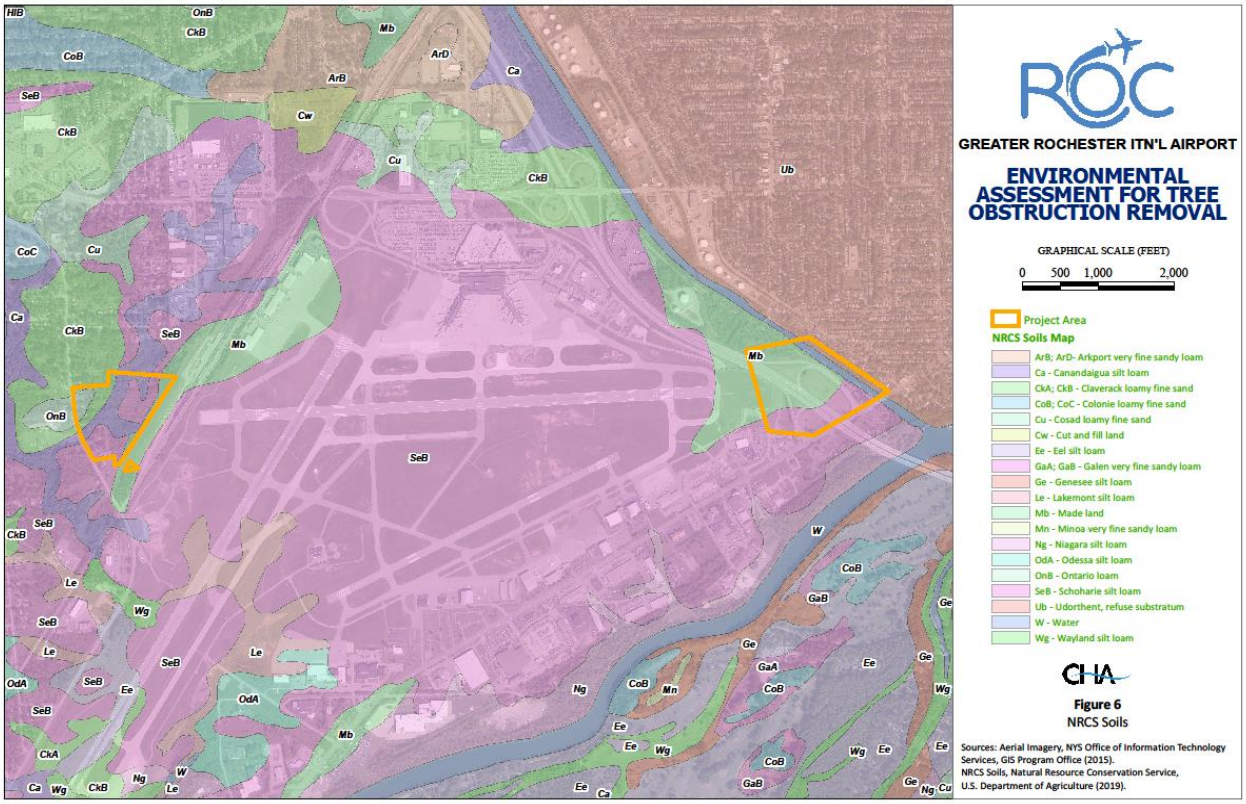
According to Web Soil Survey from the NRCS (**Figure 7**), there are no soil types identified as farmland of statewide importance mapped in the vicinity of the potential affected areas. The following soil types identified as prime farmland are mapped within the project areas.

Prime Farmland:

- Claverack loamy fine sand (CkB), 2-6% slopes
- Ontario loam (OnB), 3 to 8 percent slopes
- Schoharie silt loam (SeB), 2-6% slopes

These soils are not used for agricultural uses. The Proposed Action would not involve the conversion of farmland to non-agricultural uses, and would not include any development activities, new impervious areas, or acquisition of property. Therefore, there would be no impact to farmland and no additional evaluation is necessary.

Figure 7 – NRCS Soils



5.7 FISH, WIDLIFE AND PLANTS

5.7.1 Impact of the No Action Alternative

No tree obstruction removal would occur with this alternative, therefore, there would be no impact to fish, wildlife and plants.

5.7.2 Impact of the Proposed Action

As discussed in Section 4.3, the project areas consist of shallow emergent marsh, red maple-hardwood swamp, silver maple-ash swamp, successional old field, mowed lawn, mowed lawn with trees, mowed roadside/pathway, successional northern hardwoods and spruce/fir plantation. The Proposed Action would result in the removal of approximately 24.5 acres of trees, but mostly limited to selective removal.

On ROC and state-owned property, the tree removal would include clearing, but not grubbing (i.e., retention of the stumps and root balls) of all trees over 10' in height. Small trees and understory would be retained, with the goal to preserve the property as a meadow and scrub-shrub community.

In private, residential areas, the tree removal would generally include selective removal of individual tall trees, without removal of stumps. However, if requested by owners, removal of the tree stumps, with minor grading and seeding, removal of woodchips, and general restoration (i.e., clean-up) would be completed.

The NYSDEC NHP indicated the potential presence of two unlisted fresh water mussel species, the pink heelsplitter and the fragile papershell.

There would be no impact to the Genesee River, therefore, there would be no impact to the two NYSDEC NHP unlisted mussels.

5.8 FLOODPLAINS

5.8.1 Impact of the No Action Alternative

No tree obstruction removal would occur with this alternative, therefore, there would be no impact to floodplains.

5.8.2 Impact of the Proposed Action

Based on review of the effective FEMA floodzones for the project areas (**Figure 8**), the New York State Barge Canal/Erie Canal within the eastern project area is designated as Zone A (100-year floodplain).

Tree removal would not impact flood elevations; however, it has potential to increase runoff rates. In this instance the remaining vegetation, consisting of shrubs, small trees and ground cover would control runoff. Erosion and sedimentation controls would further mitigate potential impacts. Therefore, there would be no significant impact to the floodplain.

Figure 8 – FEMA Floodzones

5.9 HAZARDOUS MATERIALS

5.9.1 Impact of the No Action Alternative

No tree obstruction removal would occur with this alternative, therefore, there would be no impact associated with hazardous materials.

5.9.2 Impact of the Proposed Action

Tree obstruction removal does not, in and of itself, create hazardous materials or result in direct impacts to the environmental status of soils or groundwater in proximity to each specific tree removal location. However, activities or disturbances in existing contaminated areas that encounter contaminated materials would require that the contaminated materials be properly managed. In an effort to identify potentially contaminated areas within the project areas, environmental databases were reviewed to determine if any documented concerns were identified within or immediately abutting the limits of the tree removal areas. Sanborn Fire Insurance Maps and historic aerial photographs were also reviewed to evaluate historical uses of the lands within the project areas presenting possible sources of contamination associated with those historic uses. In addition, a visual site inspection of the project areas was conducted on October 21-22, 2019.

Potential areas of concern were identified as follows:

Western Project Area (Runway 10)

- Rear of 682 Beahan Road – debris, drums, scrap metal, old equipment along wood line.
- Rear of 680 Beahan Road – large pile of wood scrap, drums, plastic buckets, cans, cinder blocks.
- Airport property to rear of 676 Beahan Road – discarded materials consisting of propane tank, scrap metal, tile, concrete, glass trash, rusted paint cans, and a small engine with attached gas tank. In addition, a gasoline odor was noted in that general area during the site inspection.

Eastern Project Area (Runway 28)

- C&C Service, 230 Scottsville Road – adjacent to the southeastern corner of the project area. This facility was listed as a gasoline station from 1960 – 1991. From 1992 – 2014 it was identified as a general automotive repair center. There were no tank or spill listings for the facility, however, that is most likely due to the lack of extensive databases kept prior to 1991. There is a garage-type structure on the west side of the service center that has a stack on the front typical of what is or may have been associated with a remediation system operated within the building. However, no additional information concerning this facility was able to be obtained.

For ROC and state-owned lands (**Figure 4**), tree removal would include clearing, but not grubbing (i.e. retention of the stumps and root balls) of all trees over 10 feet in height. Small trees and understory would be retained, with the goal to preserve the property as an undeveloped meadow and scrub shrub community. As a result, the ground surfaces in these areas would not be disturbed to any significant depth during the tree removal activities. Based on this, the potential of encountering hazardous materials or petroleum products is not expected to be a concern on ROC or state-owned lands within the project areas.

For the residential properties identified below, no stump removal or grading will occur at these locations in order to avoid the potential to disturb potentially hazardous materials. If desired by property owners, tree stumps would be ground down to existing grade level and covered with top soil and seed. This method would prevent disturbance of any existing hazardous materials that may be present. This project will not include any hazardous material remediation.

- Residential properties 682 Beahan Road and 680 Beahan Road within the western project area.
- Wooded undeveloped area on the eastern end of the eastern project area adjacent to the south/southwest sides of the C&C property at 230 Scottsville Road.

Refer to **Figure 9** for the Beahan Road properties identified above as well as **Figure 2** for an aerial of the project areas.

Figure 9 – Beahan Road Parcel Addresses

5.10 HISTORICAL, ARCHITECTURAL, ARCHAEOLOGICAL AND CULTURAL RESOURCES

5.10.1 Impact of the No Action Alternative

No tree obstruction removal would occur with this alternative, therefore, there would be no impact to historical, architectural, archeological and cultural resources.

5.10.2 Impact of the Proposed Action

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

The Proposed Action was submitted to the NYSOPRHP for review. In a letter dated December 10, 2019, the NYSOPRHP indicated the Proposed Action will have No Adverse Effect (**Appendix D**).

The Seneca Nation of Indians and the Tonawanda Band of Seneca were contacted to request their comments on any potential impacts to historic properties that the tribes may attach religious and cultural significance. The Seneca Nation of Indians indicated in an email on December 3, 2019 that they wish to be included on future correspondence. No further comments were made. To date, the Tonawanda Band of Seneca has not responded. Refer to **Appendix D** for further details.

5.11 LIGHT EMISSIONS AND VISUAL

5.11.1 Impact of the No Action Alternative

No tree obstruction removal would occur with this alternative, therefore, there would be no visual impacts or light emissions.

5.11.2 Impact of the Proposed Action

5.11.2.1 Light Emissions

The Proposed Action would not result in light emissions. No new lighting or modifications to existing lighting are proposed. Additionally, all obstruction removal would take place during daylight hours, therefore, no impacts related to light emissions are anticipated.

5.11.2.2 Visual Impacts

A portion of the Proposed Action within the eastern project area is located along the Erie Canal and is within or adjacent to the New York State Barge Canal Historic District and a potential Environmental Justice community. Given these historic and sensitive resources, the impact of the project on the visual character of the surrounding area has been assessed **(See Appendix F).** With site investigations and the closer study of the existing and proposed conditions of three key views, it has been determined that the Proposed Action would not significantly impact the visual quality and experience for users along the Erie Canal Trail or residents within the Environmental Justice community along Kingsboro Road. Further, no mitigation is recommended at this time.

5.12 NATURAL RESOURCES AND ENERGY SUPPLY

5.12.1 Impact of the No Action Alternative

No tree obstruction removal would occur with this alternative, therefore, there would be no impact to natural resources and energy supply.

5.12.2 Impact of the Proposed Action

Energy demands associated with the Proposed Action is expected to be minimal as an increase in the demand for energy supplies would only occur during the tree removal and be limited to transportation and construction vehicles and equipment. Therefore, the project would not impact local or regional supplies.

5.13 NOISE

5.13.1 Impact of the No Action Alternative

No tree obstruction removal would occur with this alternative, therefore, there would be no impacts associated with noise.

5.13.2 Impact of the Proposed Action

There is a potential that nearby residents would experience short-term noise impacts during times when the Proposed Action is under construction (i.e., tree removal activities).

The project would not affect airport activity levels or capacity, and therefore would not influence overall aircraft generated noise. Further, tree removal has no impact on noise from overflights, and therefore would not result in an increase in noise emissions.

5.14 SOCIOECONOMIC ISSUES

5.14.1 Impact of the No Action Alternative

No tree obstruction removal would occur with this alternative, therefore, there would be no impact.

5.14.2 Impact of the Proposed Action

5.14.2.1 Social

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

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

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

The project in no way effects the delivery of existing or future public service. The only effect of the tree obstruction removal is to improve safety. This also applies to children's environmental health and safety risks which may be associated with the pollution of air, food, water, recreational waters, soil, or products that a child is likely to be exposed to. Therefore, the project would not have the potential for significant impacts to this or for any population category.

5.14.2.2 Environmental Justice

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

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

The Council on Environmental Quality (CEQ) regulations have defined an area as predominately minority if the minority population is 50 percent (50%) or greater. According to the EPA Environmental Screening and Mapping Tool, EJSCREEN, the western project area is in census block group 360550145041. The latest American Community Survey (ACS) summary report (2013-2017) for this block group estimates that the population is 535 and includes a population of 9% minority and 14% low income. This falls below the threshold of minority population cohorts required to trigger an environmental justice analysis.

The eastern project area is in census block groups 360559800001 and 360550068002. The ACS summary report for 360559800001 does not include an estimate of population, minority or low-income percentages because the

block consists of airport property. The ACS summary report for 360550068002 estimates that the population is 4,091 and includes a population that consists of 68% minority and 38% low-income. This block exceeds the threshold of minority population cohorts.

The U.S. Census Bureau follows the Office of Management and Budget's Statistical Policy Directive 14 which determines poverty threshold using a set of income thresholds that vary by family size and composition. If a family's total income is less than the threshold, then that family, and every individual in it, is considered low-income. The poverty threshold established by the U.S. Census Bureau in 2018 for a 4-person household, with two people being children under the age of 18 was used to determine the low-income populations. The average poverty threshold is $25,465. The eastern project area includes census tract number 68 and the western project area includes census tract number 145.04. The Airport is within census tract number 9800 and does not contain any income data. A summary of the estimated median household income and mean income is provided in **Table 3**, which indicates the census tracts within the project are not considered low-income.

Table 3 – Summary of Estimated ACS Income Levels

Geography	Median Household Income	Mean Income
City of Rochester	$32,347	$47,352
Town of Chili	$67,957	$83,434
Census Tract 68	$36,713	$43,311
Census Tract 145.04	$82,475	$92,490

In addition to the EJSCREEN tool, the NYSDEC Map of Potential Environmental Justice Areas in Monroe County was reviewed. A portion of the eastern project area is with a potential Environmental Justice area, as shown in **Figure 10**.

The purpose of the project is to remove tree obstructions in order to improve safety for aircraft, as well as the surrounding areas. The project would bring the Airport into compliance with FAA design standards and regulations regarding clear airspace. Based on the type of project under consideration, this will not result in a disproportionate impact to minority or populations below poverty level. More specifically, as discussed in The Visual Impact Assessment (**Appendix F**), aside from minor visual impacts to summer time views from second stories from homes along Kingsboro Road, the project would not significantly impact the visual quality for residents within this Environmental Justice community.

To comply with the Environmental Justice Executive Order, it is necessary to engage the affected community/neighborhood in a discussion of the potential impacts of the project and document the concerns raised. As such, ROC will incorporate this discussion within the public outreach component of the Environmental Assessment process. This will include more than the normal issuance of a public notice and conducting a public hearing. Working with the City of Rochester, the County will provide notification of an open house and public hearing to residents of the affected community/neighborhood. The notification will include a description of the project and the tree clearing plans. Affected residents will also be directed to the County's web site to review a digital copy of the Draft EA. Working with the City, limited hard copies of the Draft EA will be made available at local libraries or other appropriate locations that will allow easy access for the affected community/neighborhood.

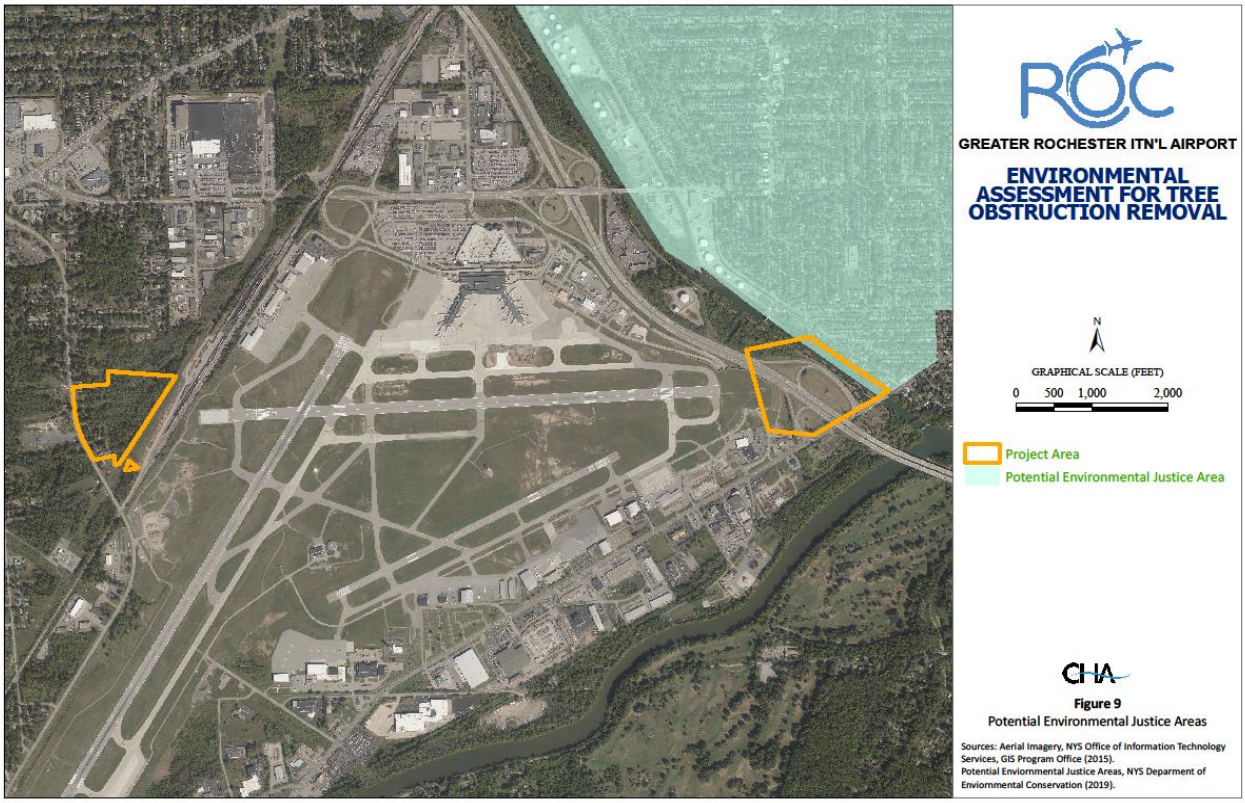
The open house portion of the public meeting will allow the public to discuss the project one-on-one with the project consultants and County officials. This will provide an t opportunity to engage in discussions with residents of the affected community/neighborhood to better understand their concerns. Affected persons will also be

encouraged to make written comments during the open house and public hearing and formal statements during the public hearing.

5.14.2.3 Children's Health and Safety Risks

The Proposed Action would not result in environmental health risks and safety risks. Further, the project would not create or make more readily available products or substances that by contact or ingestions through air, food, drinking water, recreational waters, or soil, could harm children. Therefore, the project would not result in any significant impacts to children's health or safety.

Figure 10 – Potential Environmental Justice Areas



5.15 SOLID WASTE

5.15.1 Impact of the No Action Alternative

No tree obstruction removal would occur with this alternative, therefore, there would be no impact.

5.15.2 Impact of the Proposed Action

Solid waste generated would be limited to timber and associated vegetative matter. Tree removal activities would be conducted by a licensed and insured tree removal contractor. With the exception of limited vegetative matter that may be spread on site for decomposition, all materials, such as salvageable timber (lumber), firewood, and woodchips for landscaping or pellets would be recycled, removed or transported off site by the contractor, as specified in the design plan. No significant impacts are anticipated.

5.16 WATER QUALITY

5.16.1 Impact of the No Action Alternative

No tree obstruction removal would occur with this alternative, therefore, there would be no impact to water quality.

5.16.2 Impact of the Proposed Action

There would be no increase in impervious surfaces resulting from the removal of trees. Removal techniques will minimize soil exposure. Nevertheless, erosion and sedimentation of all exposed soils during tree removal would be minimized by the use of water quality measures for tree removal including temporary silt fences, check dams and geotextile fabric on steeper slopes, as necessary. These measures are to be employed until the impacted areas are stabilized and vegetative coverage is adequate to minimize erosion. No significant water quality impacts are expected to occur as a result of the Proposed Action.

5.17 WETLANDS

5.17.1 Impact of the No Action Alternative

No tree obstruction removal would occur with this alternative, therefore, there would be no impact on wetlands.

5.17.2 Impact of the Proposed Action

A wetland delineation was completed by CHA on October 21-22, 2019, which identified wetlands within the project areas. Refer to **Appendix B** for the Wetland Delineation Report.

The Proposed Action involves the removal of trees from approximately 3.5 acres of wetland. The tree removal will include the clearing of all trees over 10 feet in height. Small trees and understory would be retained, with the goal to preserve the property as an undeveloped meadow and scrub shrub community.

The project would limit the removal method of trees within wetlands to cutting by hand and pulling out as needed over winter during frozen ground conditions to the extent practical. Additionally, no grubbing or ground disturbance would occur, no equipment would be allowed into the wetlands, and no decrease in wetland acreage would result from the project.

The contractor would be responsible for identifying suitable areas for staging that are outside of wetlands. Sedimentation and erosion controls would be incorporated into the design plans.

For those portions of the project areas not field verified, as shown on the Wetland Delineation Maps, any tree removal would be treated as if wetlands are present and would defer to the wetland tree removal method described above.

Due to the wetland tree removal method described above, it is not anticipated that a Section 404 permit would be required from the USACE regarding the 3.5 acres of tree removal within wetlands. Since there are no state wetlands or associated 100-foot adjacent areas within the project areas, an Article 24 Freshwater Wetlands permit would not be required from the NYSDEC.

5.18 WILD AND SCENIC RIVERS

5.18.1 Impact of the No Action Alternative

As discussed below, there are no designated Wild and Scenic Rivers in the vicinity of the project areas, therefore, there would be no impact.

5.18.2 Impact of the Proposed Action

According to the National Park Service National Rivers Inventory website, there are no river segments designated as Wild and Scenic Rivers in the vicinity of the project areas. Black Creek and a portion of the Genesee River to the south of the Airport are listed, but are outside of the project areas.

Review of the NYSDEC list of Wild, Scenic and Recreational Rivers identified the Genesee River as a designated scenic river within Letchworth State Park. However, Letchworth State Park is not in the vicinity of the project areas. Therefore, there would be no impact to any designated Wild and Scenic Rivers.

5.19 SUMMARY OF CONSEQUENCES

Table 4 provides a summary of the anticipated impacts and key issues associated with the Proposed Action. The project is not anticipated to result in any significant impacts or environmental concerns.

Table 4 – Summary of Potential Impacts and Key Issues

IMPACT CATEGORY	PROPOSED ACTION POTENTIAL IMPACT OR KEY ISSUE	NO ACTION ALTERNATIVE POTENTIAL IMPACT OR KEY ISSUE
Compatible Land Use	The project would not cause a change in land use and is consistent with local zoning. No compatible land use impacts are anticipated.	No Impact
Construction Impacts	All construction equipment and vehicles would be properly maintained. Proper soil and erosion controls would be employed to minimize any potential impacts. As such, significant construction impacts i.e., noise, air quality, erosion, traffic, etc. are not anticipated.	No Impact
Department of Transportation Act: Section 4(f)	The removal of trees along the Erie Canal Trail would not limit public use or access of this area. The NYSOPRHP indicated that the Proposed Action will have No Adverse Effect. To date, NYSCC and NYPA have not responded. As such, no impacts to 4(f) lands are expected.	No Impact
Farmland	No conversion of farmland to non-agricultural uses is proposed.	No Impact
Fish, Wildlife, and Plants	The Genesee River would not be impacted, therefore there would be no impact to the pink heelsplitter or the fragile papershell freshwater mussels.	No Impact
Hazardous Materials	No potential hazardous materials or concerns were identified by the database review. The potential of encountering hazardous materials or petroleum products is not expected to be a concern on ROC or state-owned properties. For the residential properties that could have contaminated soils, no stump removal or grading will occur at these locations in order to avoid the potential to disturb potentially hazardous materials.	No Impact
Historical, Architectural,	NYSOPRHP has determined that the Proposed Action will have No Adverse Effect. The Seneca Nation of	

IMPACT CATEGORY	PROPOSED ACTION POTENTIAL IMPACT OR KEY ISSUE	NO ACTION ALTERNATIVE POTENTIAL IMPACT OR KEY ISSUE
Archeological, and Cultural Resources	Indians did not have any comments and the Tonawanda Band of Seneca has not responded to date.	No Impact
Light Emissions & Visual Effects	The project would not create any light emissions. The project would not significantly impact the visual quality and experience for users along the Erie Canal Trail or residents within the Environmental Justice community along Kingsboro Road.	No Impact
Natural Resources & Energy Supply	The project would require a limited amount of natural resources and energy during tree clearing activities.	No Impact
Socioeconomic Impacts	The project would not result in any changes to land uses, the delivery of public services or the availability of jobs.	Retains potential safety issues. Does not satisfy FAA Standards.
Water Quality	No water quality impacts are anticipated.	No Impact
Wetlands	Based on the proposed tree removal method for wetland areas, it is understood that the USACE would not consider the removal of trees to be an impact and therefore, no federal wetland permits would be needed. The project areas are not near New York State mapped wetlands, and therefore, would not require a permit from the NYSDEC.	No Impact
Other Categories	The analysis identified that the project would have no impact to air quality, coastal resources, noise, floodplain, solid waste, or wild or scenic rivers.	No Impact

6 PUBLIC OUTREACH

This Draft document was released for public review on XX XX, 2020 and advertised in the following publications:

- The Daily Record
- Rochester Business Journal

The text of the associated advertisement is provided below. Additionally, letters were sent to both the City of Rochester and the Town of Chili officials, with notice regarding the release of this document, and a copy of the Draft EA.

To ensure opportunity for public comments, an open house and formal public hearing were scheduled for XX XX, 2020 at the Greater Rochester International Airport. Additionally, residents within the project areas along Beahan and Kingsboro Roads were mailed a letter with the public hearing notice, and other methods to submit formal comments on the proposed action.

Appendix G contains affidavits of the meeting advertisments, copies of the letters sent to municipalities and residents. The Final EA document will also include copies of all written comments and a transcript of the public hearing.

Text of Draft EA Notice and Meeting Advertisement:

MONROE COUNTY AIRPORT AUTHORITY
NOTICE OF AVAILABILITY and
REQUEST FOR COMMENT
Draft Environmental Assessment
Runway 10-28 Tree Obstruction Removal Project
Greater Rochester International Airport, Rochester, New York

In accordance with the National Environmental Policy Act (NEPA), NOTICE IS HEREBY GIVEN that copies of a Draft Environmental Assessment (EA) for the Runway 10-28 Tree Obstruction Removal Project at Greater Rochester International Airport are available for public review and comment.

The Draft EA identifies the proposed action, project alternatives, and presents an evaluation of potential environmental impacts. The Draft EA can be viewed and downloaded from the Airport's website, under the Airport News and Media Information tab: https://www2.monroecounty.gov/airport-news.php. Copies of the Draft EA can also be obtained at the Authority's administrative offices by appointment, please call (585) 753-7000.

An informational meeting about the Draft EA will be held at the following location and time:

XX XX, 2020, Time – Time PM
Greater Rochester International Airport
Terminal Building, First floor, International Arrivals Hall
1200 Brooks Avenue, Rochester, NY

Public comments on this Draft EA may be submitted at the informational meeting or in writing to the Aviation Department at the address above. Comments must be received by close of business on XX XX, 2020 in order to be considered in the Final EA.

7 LIST OF PREPARERS

The following individuals prepared this EA on behalf of the Airport sponsor.

CHA Companies, Inc.
Paul McDonnell, AICP, Senior Principal Planner
Christopher Einstein, Principal Planner
Nicholas Schwartz, Senior Landscape Architect
Nicole Frazer, Senior Scientist
Rogina Camilli, Senior Scientist
Emily Handelman, Landscape Architect IV
Jay Rauschenbach, AICP, Planner III
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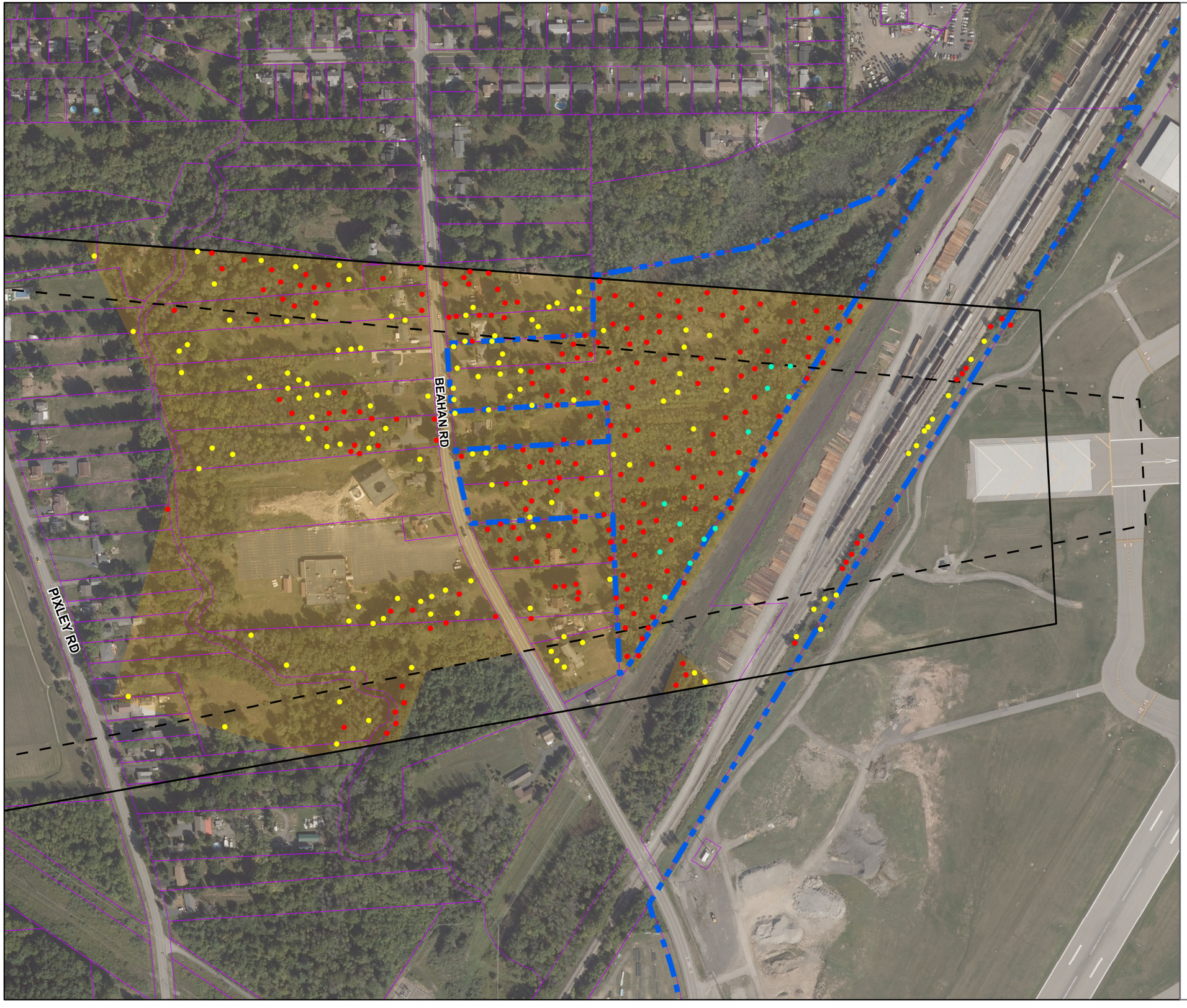
APPENDIX A



GREATER ROCHESTER ITN'L AIRPORT

ENVIRONMENTAL ASSESSMENT FOR TREE OBSTRUCTION REMOVAL

N

GRAPHICAL SCALE (FEET)

0 100 200 400

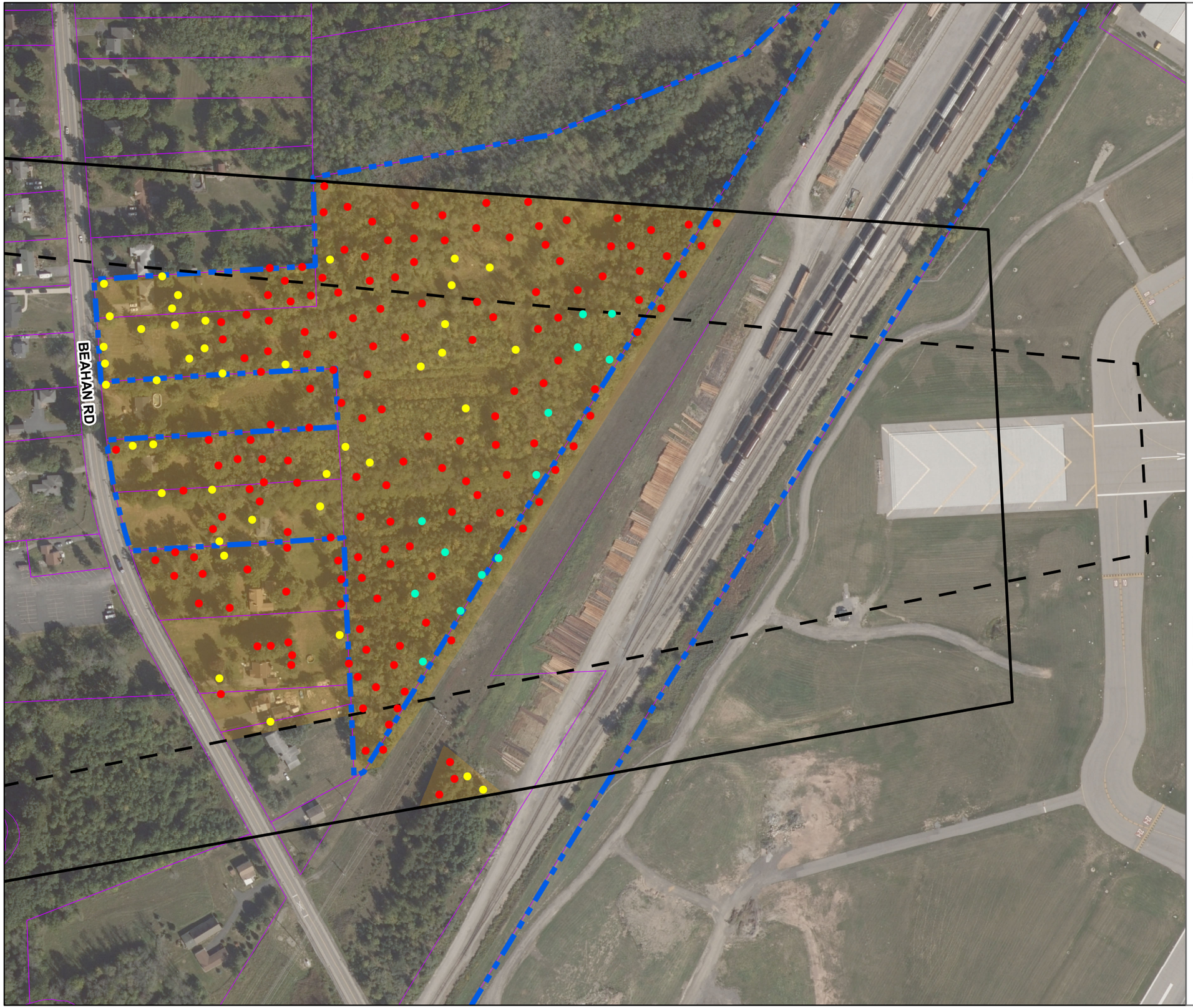
- Airport Property Boundary
- Parcel Boundary
- Part 77 Approach Surface (34:1)
- Threshold Siting Surface (20:1)
- Full Clearing Area
- Trees Penetrating Part 77 Approach Surface
- Trees within 10' of P77AS
- Trees within 10' of Threshold Siting Surface

Note: Airport Property and Parcel boundaries are approximate.

FULL TREE OBSTRUCTION REMOVAL ALTERNATIVE

Runway 10 (West Project Area)

Source: Aerial Imagery, NYS Office of Information Technology Services, GIS Program Office (2015).



GREATER ROCHESTER ITN'L AIRPORT

ENVIRONMENTAL ASSESSMENT FOR TREE OBSTRUCTION REMOVAL

N

GRAPHICAL SCALE (FEET)

0 100 200 400

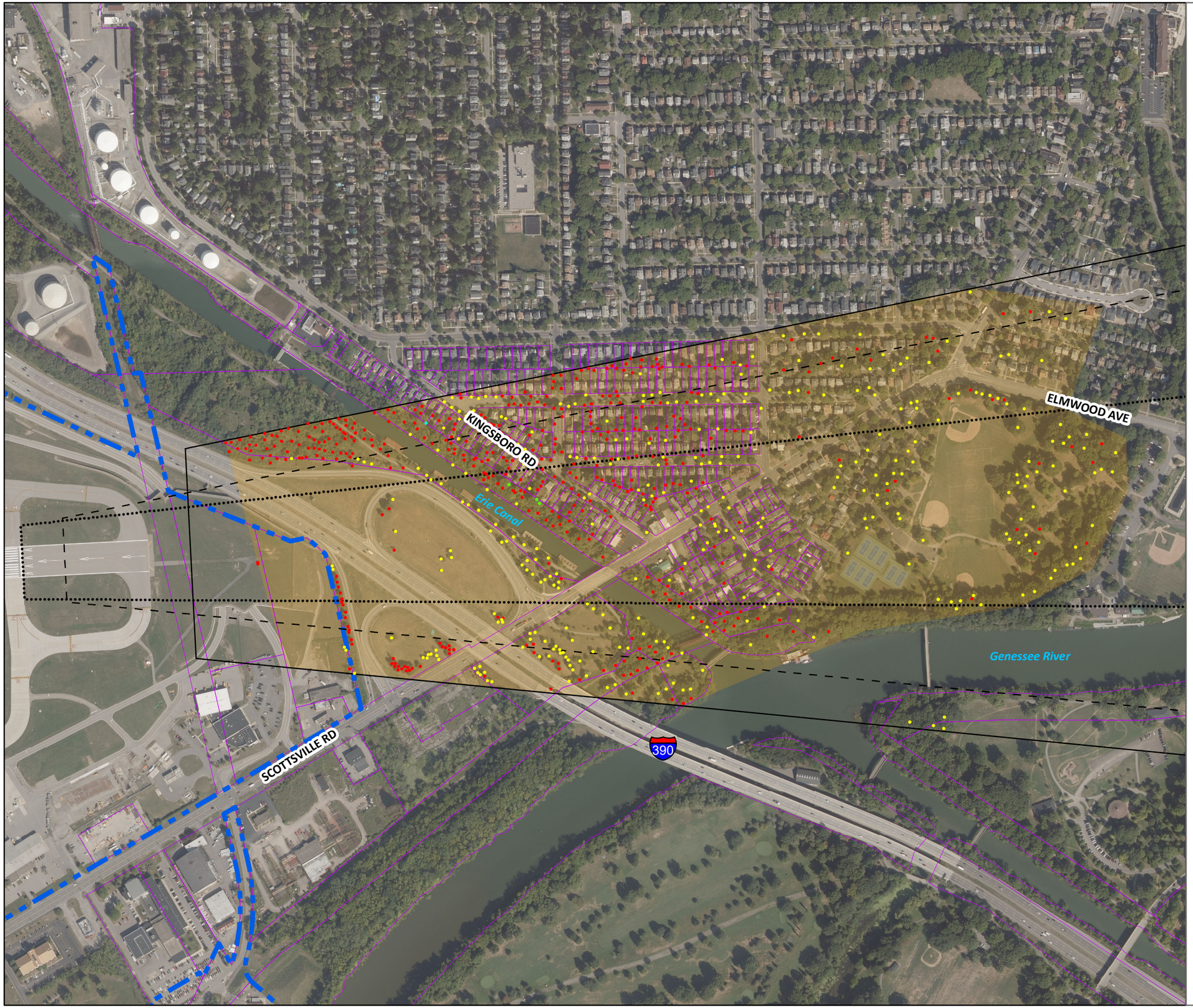
- Airport Property Boundary
- Parcel Boundary
- Part 77 Approach Surface (34:1)
- Threshold Siting Surface (20:1)
- Preferred Clearing Area
- Trees Penetrating Part 77 Approach Surface
- Trees within 10' of P77AS
- Trees within 10' of Threshold Siting Surface

Note: Airport Property and Parcel boundaries are approximate.

MODIFIED TREE OBSTRUCTION REMOVAL ALTERNATIVE (PREFERRED)

Runway 10 (West Project Area)

Source: Aerial Imagery, NYS Office of Information Technology Services, GIS Program Office (2015).



GREATER ROCHESTER ITN'L AIRPORT

ENVIRONMENTAL ASSESSMENT FOR TREE OBSTRUCTION REMOVAL

N

GRAPHICAL SCALE (FEET)

0 200 400 800

- Airport Property Boundary
- Parcel Boundary
- Part 77 Approach Surface (50:1)
- Threshold Siting Surface (20:1)
- Glide Path Qualification Surface (30:1)
- Full Clearing Area
- Trees Penetrating Part 77 Approach Surface
- Trees within 10' of P77AS
- Trees within 10' of Threshold Siting Surface
- Trees within 10' of Glide Path Qualification Surface

Note: Airport Property and Parcel boundaries are approximate.

CHA

FULL TREE OBSTRUCTION REMOVAL ALTERNATIVE

Runway 28 (East Project Area)

Source: Aerial Imagery, NYS Office of Information Technology Services, GIS Program Office (2015).

KINGSBORO RD

Erie Canal

SCOTTSVILLE RD

390

Genessee River

GREATER ROCHESTER ITN'L AIRPORT

ENVIRONMENTAL ASSESSMENT FOR TREE OBSTRUCTION REMOVAL

N

GRAPHICAL SCALE (FEET)

0 200 400 800

- Airport Property Boundary
- Parcel Boundary
- Part 77 Approach Surface (50:1)
- Threshold Siting Surface (20:1)
- Glide Path Qualification Surface (30:1)
- Preferred Clearing Area
- Trees Penetrating Part 77 Approach Surface
- Trees within 10' of P77AS
- Trees within 10' of Threshold Siting Surface
- Trees within 10' of Glide Path Qualification Surface

Note: Airport Property and Parcel boundaries are approximate.

MODIFIED TREE OBSTRUCTION REMOVAL ALTERNATIVE (PREFERED)

Runway 28 (East Project Area)

Source: Aerial Imagery, NYS Office of Information Technology Services, GIS Program Office (2015).

APPENDIX B

Wetland Delineation Report

Greater Rochester International Airport
Off Airport Tree Obstruction Removal
Town of Chili & City of Rochester
Monroe County, New York

CHA Project Number: 050495

Prepared for:
Monroe County
1200 Brooks Avenue
Rochester, New York 14624

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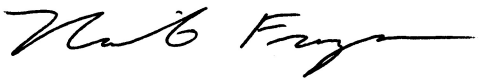
December 4, 2019

V:\Projects\ANY\K5\050495.000\Reports\EA\Ecology\Wetland Delineation\wetland delineation report December 2019.doc

SIGNATURE PAGE

This report has been prepared and reviewed by the following qualified personnel employed by CHA.

Report Prepared By:



Nicole Frazer
Senior Scientist V

Report Reviewed By:

John Greaves IV
Senior Scientist V

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LIST OF ACRONYMS & ABBREVIATIONS

BFD	Bankfull Depth
BFW	Bankfull Width
CWA	Clean Water Act
FEMA	Federal Emergency Management Agency
FWW	Freshwater Wetland
HUC	Hydrologic Unit Codes
NRCS	Natural Resources Conservation Service
NWI	National Wetlands Inventory
NYSDEC	New York State Department of Environmental Conservation
TNW	Traditional Navigable Waters
USACE	United States Army Corps of Engineers
USFWS	United States Department of the Interior, Fish and Wildlife Service
USGS	United States Geological Survey

1.0 INTRODUCTION

The project areas are associated with the ends of Runway 10-28 of the Greater Rochester International Airport (AIP 103-2019), located in the Town of Chili and the City of Rochester, Monroe County, New York (Appendix A). The eastern project area totals 35.1 acres and the western project area totals 23.4 acres. The approximate coordinates of the eastern project area are Latitude 43° 7' 24.79"N; Longitude 77° 38' 52.77"W and the approximate coordinates of the western project area are Latitude 43° 7' 21.48"N; Longitude 77° 41' 6.41"W.

The purpose of this report is to document the wetland communities and their boundaries within the project areas. It should be noted that CHA did not have access to all areas within the project area limits. Those areas have been identifed on the Wetland Delineation Maps (Appendix A- Figures 1 & 2) as not field verified. The report includes a general description of the project areas, their ecology, wetland descriptions and is complimented by wetland determination data forms (Appendix B) and site photographs (Appendix C).

CHA was retained to delineate and describe the wetlands of the project areas that may be regulated by the United States Army Corps of Engineers (USACE) under Section 404 of the Clean Water Act (CWA). The wetland delineation was conducted on October 21 and 22, 2019.

1.1 PROJECT AREA DESCRIPTION

The project areas are located beyond the ends of Runway 10-28 of the Greater Rochester International Airport. The project areas are primarily a mix of undeveloped forest, highway interchange and residential areas. The Erie Canal and Erie Canal Trail are within the eastern project area. Within the western project area there is a forested wetland and an emergent linear wetland that contains an intermittent stream.

2.0 METHODOLOGY

The project area was evaluated in accordance with the procedures provided in the 1987 Corps of Engineers Wetland Delineation Manual and the Regional Supplement to the Corps of Engineers Wetland Manual: Northcentral and Northeast Region Version 2.0 (January 2012). The "Routine Wetland Determination" method was used.

The wetland boundaries were determined in the field based on the three parameter approach, whereby an area is a wetland if it exhibits vegetation adapted to wet conditions (hydrophytes), hydric soil indicators, and the presence or evidence of water at or near the soil surface during the growing season (hydrology).

Coded surveyor's ribbons (e.g. flag code A-1, A-2, etc.) were placed along the wetland boundaries based on observations of vegetation, soils and hydrologic conditions. Flagged boundaries were survey located.

Data points were recorded along the wetland boundaries at various locations. Wetland and dry land data points were recorded to show the difference between the wetland and dry land habitats. Data sheets corresponding to each point can be found in Appendix B.

Representative photographs of the wetland and dry land portions of the project areas are provided in Appendix C.

Vegetative community types within the project areas are described according to *Ecological Communities of New York State, Second Edition* (Edinger 2014)[1] and *Classification of Wetlands and Deepwater Habitats of the United States* (Cowardin 1979)[2].

3.0 INVESTIGATION RESULTS

3.1 RESOURCE REVIEW

Prior to visiting the project areas, various maps and other sources of background information were reviewed. These include the following:

- United States Geological Survey (USGS) 7.5-minute topographic map
- New York State Department of Environmental Conservation (NYSDEC) Freshwater

[1] Edinger, G. J., D. J. Evans, S. Gebauer, T. G. Howard, D. M. Hunt, and A. M. Olivero (editors). 2014. *Ecological* Communities *of New York State.* Second Edition. A revised and expanded edition of Carol Reshke's *Ecological Communities of New York State*. New York Natural Heritage Program, New York State Department of Environmental Conservation, Albany, NY.

[2] Cowardin, L. M., V. Carter, F. C. Golet, E. T. LaRoe, 1979. *Classification of wetlands and deepwater habitats of the United States*. U. S. Department of the Interior, Fish and Wildlife Service, Washington, D.C.

Wetlands (FWW) Map
- United States Department of the Interior, Fish and Wildlife Service (USFWS), National Wetlands Inventory (NWI) map
- Natural Resources Conservation Service (NRCS) Soil Survey for Monroe County
- Federal Emergency Management Agency (FEMA) Floodplain Map
- Aerial Imagery

Refer to Appendix A for each of these figures.

3.1.1 USGS Topographic Map

According to the USGS Topographic Map, the eastern project area lies west of Kingsboro Road, along Scottsville Road to the south, includes a portion of the Erie Canal, and is transected by I-390. The topography varies from steep to relatively flat. The western project area lies east of Beahan Road and west of the railroad tracks. The topography is relatively flat.

3.1.2 NYSDEC Freshwater Wetlands Map

No mapped NYSDEC freshwater wetlands or 100-foot Adjacent Areas are shown within the project areas.

3.1.3 National Wetland Inventory (NWI) Map

Review of the NWI map indicates the eastern side of the eastern project area is transected by the Erie Canal, which is a mapped NWI wetland. Its Cowardin, et al (1979) classification is Lacustrine, Limnetic, Unconsolidated Bottom, Permanently Flooded, Excavated (L1UBHx).

Review of the NWI map indicates there are no mapped NWI wetlands within the western project area. There is a mapped NWI wetland to the north. Its Cowardin, et al (1979) classification is Palustrine, Forested, Broad-leaved Deciduous, Temporarily Flooded (PFO1A).

3.1.4 Soil Survey Map

Soils descriptions were obtained from the NRCS Web Soil Survey. This information was used in conjunction with on-site soil sampling to determine the presence of hydric soils. The following soils are mapped as occurring within the project areas:

- Canandaigua silt loam (Ca), 0 to 2% slopes- This soil is very poorly drained. The depth to water table is about 0 inches and the depth to restrictive feature is more than 80 inches.

- Claverack loamy fine sand (CkB), 2 to 6% slopes- This soil is moderately well drained. The depth to water table is about 18 to 24 inches and the depth to restrictive feature is more than 80 inches.

- Made land (Mb), 0 to 8% slopes- This soil is moderately well drained. The depth to water table is about 36 to 72 inches and the depth to restrictive feature is more than 80 inches.

- Ontario loam (OnB), 3 to 8% slopes- This soil is well drained. The depth to water table and to restrictive feature is more than 80 inches.

- Schoharie silt loam (SeB), 2 to 6% slopes- This soil is moderately well drained. The depth to water table is about 18 to 36 inches and the depth to restrictive feature is more than 80 inches.

- Urban land (Ub)

3.1.5 FEMA Floodplain Map

Based on review of the Flood Insurance Rate Maps, there is an area of Zone A (100-year floodplain) associated with the New York State Barge Canal/Erie Canal within the eastern project area.

3.1.6 Hydrology

The water quality of surface waters in New York State are classified by the NYSDEC as either "AA", "A", "B", "C", or "D". A "T" used with the classification indicates that the stream supports, or may support, a trout population. All streams and water bodies with a classification of C(T) or higher are regulated by the NYSDEC. There is an intermittent tributary of Little Black Creek within Wetland A within the western project area. The tributary has been designated by the NYSDEC as Class C/ Standard C. The Erie Canal within the eastern project area has been designated by the NYSDEC as Class B/ Standard B.

The Hydrologic Unit Code (HUC) for the western project area is 041300030701 (Little Black Creek) and 041300030703 (Town of Gates- Genesee River) for the eastern project area.

The Erie Canal, which is within the eastern project limits is a Traditional Navigable Water (TNW). In the western project limits, water from Wetland A and its intermittent stream drains southwest through a culvert under Beahan Road to Little Black Creek. Little Black Creek flows southeast to a culvert that appears to direct flow under the Greater Rochester International Airport. It is assumed that the culvert daylights at the Genesee River (a TNW) located immediately southeast of the airport. Genesee River is a tributary of Lake Ontario and is navigable from mouth to Black Creek about 119.1 miles upstream from the mouth, at Belfast, New York. The total distance water flows from the western project area to the Genesee River is approximately 1.8 aerial miles (2.7 river miles).

3.2 FIELD INVESTIGATION

3.2.1 Vegetative Communities

Vegetative communities identified within the project area consist of shallow emergent marsh, red maple-hardwood swamp, silver maple-ash swamp, successional old field, mowed lawn, mowed lawn with trees, mowed roadside/pathway, successional northern hardwoods and spruce/fir plantation.

3.2.2 Discussion of Wetlands and Streams

The delineated wetlands and streams are described below. Refer to Appendix D for Wetland Delineation Maps.

Wetland A – This wetland is a linear shallow emergent marsh, with an intermittent stream that flows through it. The bankfull width (BFW) of the stream is approximately 2 to 3 feet and the bankfull depth (BFD) approximately 1 to 3 inches. The stream is shaded with vegetation overhang and the substrate is mud and organic material with some cobbles. Most areas of the stream did not have much flow at the time of the field investigation and the stream was mostly pooled. This stream is a tributary of Little Black Creek. The tributary originates from the wetland to the north of the project area and leaves the project area to the west via a culvert under Beahan Road.

Wetland A contains species such as rice cutgrass (*Leersia oryzoides*), water horehound (*Lycopus americanus*), green bulrush (*Scirpus atrovirens*), cattail (*Typha latifolia*), moneywort (*Lysimachia nummularia*), and silky dogwood (*Cornus amomum*). Observed hydrology indicators included surface water (A1), high water table (A2), saturation (A3), oxidized rhizospheres on living roots (C3), thin muck surface (C7), geomorphic positioning (D2) and a positive FAC-Neutral Test (D5). The hydric soil indicator is redox dark surface (F6).

The total size of Wetland A within the project area is approximately 0.6 acres and the length of intermittent stream is 1,095 feet within the project area.

Wetland B/C: This wetland contains areas of red maple-hardwood swamp and silver maple-ash swamp. Wetland B/C contains species such as green ash (*Fraxinus pennsylvanica*), red maple (*Acer rubrum*), silver maple (*Acer saccharinum*), buckthorn (*Rhamnus cathartica*), eastern cottonwood (*Populus deltoides),* American elm (*Ulmus americana*), silky dogwood, arrowwood (*Viburnum dentatum*), red osier dogwood (*Cornus alba*), multiflora rose (*Rosa multiflora*), wrinkleleaf goldenrod (*Solidago rugosa*), giant goldenrod (*Solidago gigantea*), sensitive fern (*Onoclea sensibilis*) and common reed (*Phragmites australis*). Observed hydrology indicators included surface water (A1), high water mark (A2), saturation (A3), water-stained leaves (B9), moss trim lines (B16), geomorphic position (D2) and a positive FAC-Neutral Test (D5). The hydric soil indicator is redox dark surface (F6).

The total size of Wetland B/C within the project area is approximately 2.9 acres.

Erie Canal- Approximately 1,337 linear feet of the perennial Erie Canal is within the project area. Within the project area, the canal is approximately 100 feet wide and the edges of the canal are lined by concrete.

3.2.3 Discussion of Terrestrial Communities

Successional old field – These areas contain species such as milkweed (*Asclepias syriaca)*, staghorn sumac (*Rhus typhina)*, mugwort (*Artemisia vulgaris)*, grasses, black raspberry (*Rubus occidentalis*), honeysuckle (*Lonicera tatarica)*, Canada thistle (*Cirsium arvense)*, goldenrod (*Solidgo sp*.), grape (*Vitis sp*.), pokeweed (*Phytolacca americana)* and box elder (*Acer negundo*).

Mowed lawn- The mowed lawn areas contain grasses and species such as common plantain (*Plantago major*), English plantain (*Plantago lanceolata*) and dandelion (*Taraxacum officinale)*. These areas have scattered trees that have less than 30 percent coverage. Some of those tree species include sugar maple ((*Acer saccharum*), Norway maple (*Acer platanoides)*, thornless honey locust (*Gleditsia triacanthos f. inermis*) and red pine (*Pinus resinosa).*

Mowed lawn with trees- These areas contain species such as grasses, white clover (*Trifolium repens*), dandelion, English plantain, common plantain and ground ivy (*Glechoma hederacea)*.

These areas are shaded with at least 30% cover in trees. Some of these tree species include white poplar (*Populus alba*), cottonwood, sugar maple and white pine (*Pinus strobus*).

Mowed roadside/pathway- The mowed roadside contains species such as Kentucky blue grass (*Poa pratensis*), queen Anne's lace (*Daucus carota*), spotted knapweed (*Centaurea stoebe)*, mugwort, common hawkweed (*Hieracium lachenalia)*, dandelion and English plantain.

Successional northern hardwoods - These areas contain species such as buckthorn, sugar maple, quaking aspen (*Populus tremuloides*), Norway spruce (*Picea abies*), green ash, Norway maple, black walnut (*Juglans nigra)*, box elder, white pine, scotch pine (*Pinus sylvestris)*, cottonwood, autumn olive (*Elaeagnus umbellata*), gray dogwood (*Cornus racemosa*), multiflora rose, Japanese knotweed (*Reynoutria japonica*), honeysuckle, grape, and vetch species (*Vicia sp*.).

Spruce/fir plantation- There is a stand of Norway spruce with a sparse ground layer within the western project area.

Appendix A

Wetland A
0.6 Acres within Project Area
(continues north)

Wetland B/C
2.9 Acres within Project Area

Intermittent Stream
1,095 Linear Feet within Project Area

Project Area (West)
23.4 Acres

BEAHAN RD

652 664 670 672 674 676 678 680 682

GREATER ROCHESTER ITN'L AIRPORT

ENVIRONMENTAL ASSESSMENT FOR TREE OBSTRUCTION REMOVAL

N

GRAPHICAL SCALE (FEET)

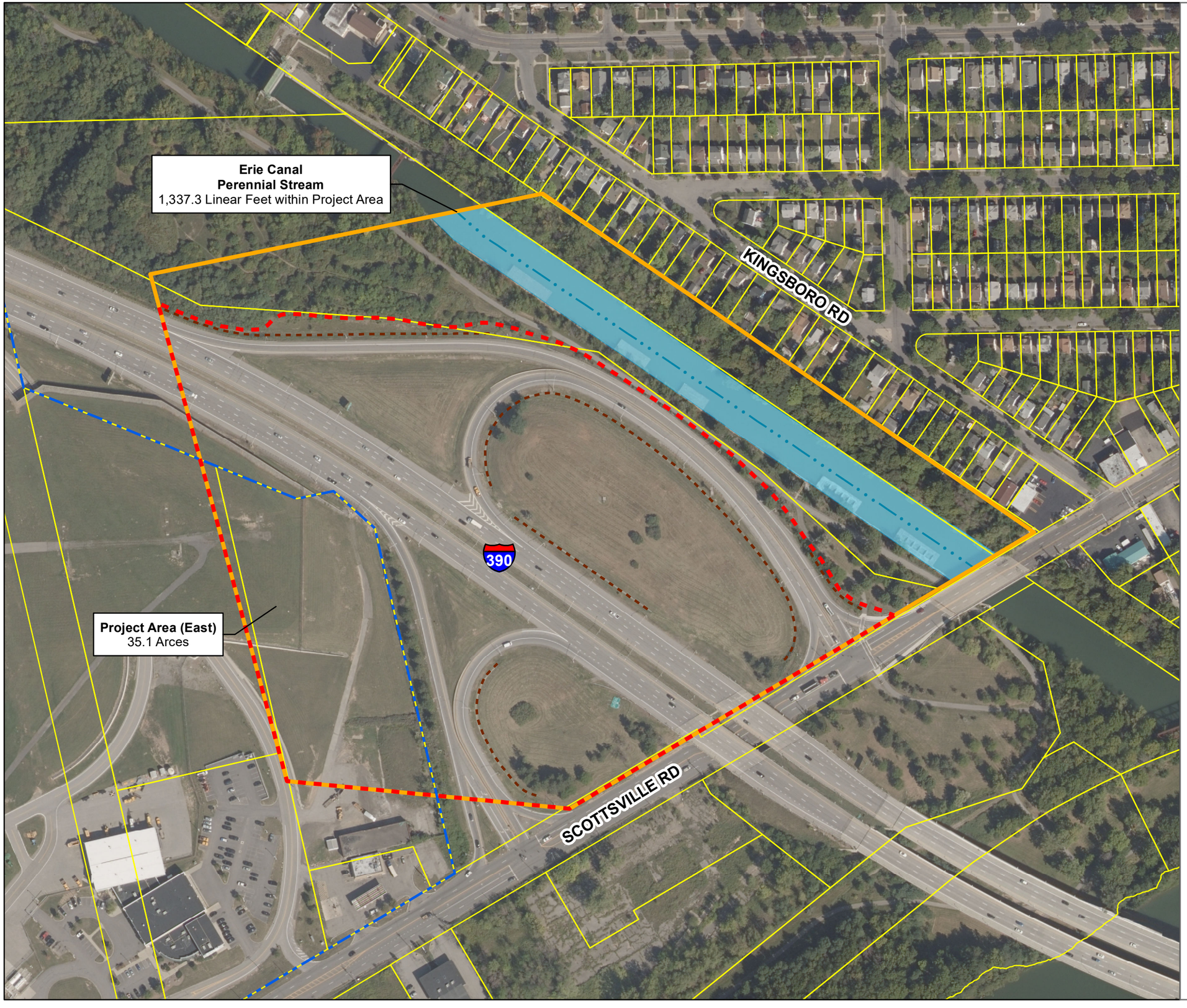
0 100 200 400

- Airport Property Boundary
- Parcel Boundary
- Project Area
- Wetland Area
- Intermittent Stream
- Parcel Not Field Verified
- Wetland Delineation Flag

Note: Airport Property and Parcel boundaries are approximate.

Figure 1
Wetland Delineation (West)

Source: Aerial Imagery, NYS Office of Information Technology Services, GIS Program Office (2015).



GREATER ROCHESTER ITN'L AIRPORT

ENVIRONMENTAL ASSESSMENT FOR TREE OBSTRUCTION REMOVAL

N

GRAPHICAL SCALE (FEET)

0 100 200 400

- Airport Property Boundary
- Parcel Boundary
- Project Area
- Project Area Not Field Verified
- Stream Area
- Perennial Stream
- Drainage Swale

Note: Airport Property and Parcel boundaries are approximate.

Figure 2
Wetland Delineation (East)

Source: Aerial Imagery, NYS Office of Information Technology Services, GIS Program Office (2015).

GREATER ROCHESTER ITN'L AIRPORT

ENVIRONMENTAL ASSESSMENT FOR TREE OBSTRUCTION REMOVAL

N

GRAPHICAL SCALE (FEET)

0 1,000 2,000 4,000

Project Area

Figure 3
USGS Project Location

Source: Topographic Quadrangles Rochester West & West Henrietta, USGS (1995 & 2000).

GREATER ROCHESTER ITN'L AIRPORT

ENVIRONMENTAL ASSESSMENT FOR TREE OBSTRUCTION REMOVAL

N

GRAPHICAL SCALE (FEET)

0 500 1,000 2,000

Project Area
NWI Wetlands
NYS DEC Wetlands

Figure 4
State and Federal Wetlands

Sources: Aerial Imagery, NYS Office of Information Technology Services, GIS Program Office (2015).
NYS DEC Wetlands, NYS Department of Environmental Conservation (2019).
NWI Wetlands, U.S. Fish & Wildlife Service (2019).

GREATER ROCHESTER ITN'L AIRPORT

ENVIRONMENTAL ASSESSMENT FOR TREE OBSTRUCTION REMOVAL

N

GRAPHICAL SCALE (FEET)

0 500 1,000 2,000

Project Area

NRCS Soils Map

- ArB; ArD- Arkport very fine sandy loam
- Ca - Canandaigua silt loam
- CkA; CkB - Claverack loamy fine sand
- CoB; CoC - Colonie loamy fine sand
- Cu - Cosad loamy fine sand
- Cw - Cut and fill land
- Ee - Eel silt loam
- GaA; GaB - Galen very fine sandy loam
- Ge - Genesee silt loam
- Le - Lakemont silt loam
- Mb - Made land
- Mn - Minoa very fine sandy loam
- Ng - Niagara silt loam
- OdA - Odessa silt loam
- OnB - Ontario loam
- SeB - Schoharie silt loam
- Ub - Udorthent, refuse substratum
- W - Water
- Wg - Wayland silt loam

CHA

Figure 5
NRCS Soils

Sources: Aerial Imagery, NYS Office of Information Technology Services, GIS Program Office (2015).
NRCS Soils, Natural Resource Conservation Service, U.S. Department of Agriculture (2019).

GREATER ROCHESTER ITN'L AIRPORT

ENVIRONMENTAL ASSESSMENT FOR TREE OBSTRUCTION REMOVAL

N

GRAPHICAL SCALE (FEET)

0 500 1,000 2,000

Project Area

FEMA Floodzones

A

AE

AE, Floodway

Figure 6
FEMA Floodzones

Sources: Aerial Imagery, NYS Office of Information Technology Services, GIS Program Office (2015).
Floodzones, Federal Emergency Management Agency (2018).

GREATER ROCHESTER ITN'L AIRPORT

ENVIRONMENTAL ASSESSMENT FOR TREE OBSTRUCTION REMOVAL

N

GRAPHICAL SCALE (FEET)

0 500 1,000 2,000

Project Area

Figure 7
Aerial Location

Source: Aerial Imagery, NYS Office of Information Technology Services, GIS Program Office (2015).

Appendix B

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: GRIA Off Airport Tree Obstruction Removal City/County: Chili & Rochester/ Monroe Sampling Date: 10/21/19

Applicant/Owner: Monroe County Airport Authority State: NY Sampling Point: Wet A-32

Investigator(s): N. Frazer and C. Scrivner Section, Township, Range:

Landform (hillside, terrace, etc.): depression Local relief (concave, convex, none): concave Slope %: 1

Subregion (LRR or MLRA): LRR L Lat: Long: Datum:

Soil Map Unit Name: Canandaigua silt loam (Ca) NWI classification: PEM1

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes x No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area**
Hydric Soil Present?	Yes X	No ____	**within a Wetland?** **Yes** X **No** ____
Wetland Hydrology Present?	Yes X	No ____	If yes, optional Wetland Site ID: Wetland A near flag A-32

Remarks: (Explain alternative procedures here or in a separate report.)
Shallow emergent marsh

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- X Surface Water (A1)
- X High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- X Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- X Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- X Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes X	No ____	Depth (inches): 0.5
Water Table Present?	Yes X	No ____	Depth (inches): 0.5
Saturation Present? (includes capillary fringe)	Yes X	No ____	Depth (inches): 0

Wetland Hydrology Present? **Yes** X **No** ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Adjacent to a stream.

VEGETATION – Use scientific names of plants.

Sampling Point: Wet A-32

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size: 15')			
1. *Cornus amomum*	2	No	FACW
2.			
3.			
4.			
5.			
6.			
7.			
	2 =Total Cover		
Herb Stratum (Plot size: 5')			
1. *Leersia oryzoides*	110	Yes	OBL
2. *Lycopus americanus*	10	No	OBL
3. *Scirpus atrovirens*	5	No	OBL
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	125 =Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
3.			
4.			
	=Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	125	x 1 =	125
FACW species	2	x 2 =	4
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	127 (A)		129 (B)

Prevalence Index = B/A = 1.02

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

_X_ 2 - Dominance Test is >50%

_X_ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** X **No** ___

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point Wet A-32

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-1	7.5YR 2.5/1	100					Muck	with organics
1-15	10YR 3/1	88	5YR 3/3	10	C	M	Loamy/Clayey	Prominent redox concentrations
			5YR 4/3	2	C	PL		Prominent redox concentrations

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol (A1)
___ Histic Epipedon (A2)
___ Black Histic (A3)
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5)
___ Depleted Below Dark Surface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
___ High Chroma Sands (S11) (**LRR K, L)**
___ Loamy Mucky Mineral (F1) (**LRR K, L**)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
X Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)
___ Marl (F10) (**LRR K, L**)

Indicators for Problematic Hydric Soils[3]:

___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
___ Coast Prairie Redox (A16) (**LRR K, L, R**)
___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
___ Polyvalue Below Surface (S8) (**LRR K, L**)
___ Thin Dark Surface (S9) (**LRR K, L**)
___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
___ Red Parent Material (F21)
___ Very Shallow Dark Surface (F22)
___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: none

Depth (inches): _____

Hydric Soil Present? **Yes** X **No** ____

Remarks:

This data form is revised from Northcentral and Northeast Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 7.0, 2015 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: GRIA Off Airport Tree Obstruction Removal City/County: Chili & Rochester/ Monroe Sampling Date: 10/21/19

Applicant/Owner: Monroe County Airport Authority State: NY Sampling Point: Dry A-32

Investigator(s): N. Frazer and C. Scrivner Section, Township, Range:

Landform (hillside, terrace, etc.): flat Local relief (concave, convex, none): none Slope %: 0

Subregion (LRR or MLRA): LRR L Lat: Long: Datum:

Soil Map Unit Name: Canandaigua silt loam (Ca) NWI classification: n/a

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No (If no, explain in Remarks.)

Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes x No

Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	No X	**Is the Sampled Area**
Hydric Soil Present?	Yes	No X	**within a Wetland?** **Yes** **No** X
Wetland Hydrology Present?	Yes	No X	If yes, optional Wetland Site ID:

Remarks: (Explain alternative procedures here or in a separate report.)
Successional northern hardwoods

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1)
- Sediment Deposits (B2)
- Drift Deposits (B3)
- Algal Mat or Crust (B4)
- Iron Deposits (B5)
- Inundation Visible on Aerial Imagery (B7)
- Sparsely Vegetated Concave Surface (B8)
- Water-Stained Leaves (B9)
- Aquatic Fauna (B13)
- Marl Deposits (B15)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres on Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Tilled Soils (C6)
- Thin Muck Surface (C7)
- Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- Surface Soil Cracks (B6)
- Drainage Patterns (B10)
- Moss Trim Lines (B16)
- Dry-Season Water Table (C2)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Stunted or Stressed Plants (D1)
- Geomorphic Position (D2)
- Shallow Aquitard (D3)
- Microtopographic Relief (D4)
- FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes	No x	Depth (inches):
Water Table Present?	Yes	No x	Depth (inches):
Saturation Present? (includes capillary fringe)	Yes	No x	Depth (inches):

Wetland Hydrology Present? **Yes** **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION – Use scientific names of plants.

Sampling Point: Dry A-32

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. *Rhamnus cathartica*	85	Yes	FAC
2.			
3.			
4.			
5.			
6.			
7.			
	85	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15')			
1. *Cornus racemosa*	40	Yes	FAC
2. *Rosa multiflora*	15	Yes	FACU
3.			
4.			
5.			
6.			
7.			
	55	=Total Cover	
Herb Stratum (Plot size: 5')			
1. *Polygonum cuspidatum*	30	Yes	FACU
2. *Rosa multiflora*	5	No	FACU
3. *Lonicera tatarica*	5	No	FACU
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	40	=Total Cover	
Woody Vine Stratum (Plot size: 30')			
1. *Vitis species*	2	No	
2.			
3.			
4.			
	2	=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	125	x 3 =	375
FACU species	55	x 4 =	220
UPL species	0	x 5 =	0
Column Totals:	180 (A)		595 (B)

Prevalence Index = B/A = 3.31

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** ___ **No** X

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point Dry A-32

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-8	10YR 3/3	99	10YR 5/6	1	C	M	Loamy/Clayey	Distinct redox concentrations
8-12	5YR 4/3	65	10YR 4/2	35	C	M	Loamy/Clayey	Distinct redox concentrations

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: roots

Depth (inches): 12

Hydric Soil Present? **Yes** ___ **No** X

Remarks:

This data form is revised from Northcentral and Northeast Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 7.0, 2015 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: GRIA Off Airport Tree Obstruction Removal City/County: Chili & Rochester/ Monroe Sampling Date: 10-21-19

Applicant/Owner: Monroe County Airport Authority State: NY Sampling Point: Wet B-19

Investigator(s): N. Frazer and C. Scrivner Section, Township, Range:

Landform (hillside, terrace, etc.): flat Local relief (concave, convex, none): none Slope %: 0

Subregion (LRR or MLRA): LRR L Lat: Long: Datum:

Soil Map Unit Name: Canandaigua silt loam (Ca) NWI classification: PFO1

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes x No

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No	**Is the Sampled Area**
Hydric Soil Present?	Yes x	No	**within a Wetland?** **Yes** X **No**
Wetland Hydrology Present?	Yes X	No	If yes, optional Wetland Site ID: Wetland B near flag B-19

Remarks: (Explain alternative procedures here or in a separate report.)

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- X High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- x Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No x	Depth (inches): ____
Water Table Present?	Yes x	No ____	Depth (inches): 5
Saturation Present? (includes capillary fringe)	Yes x	No ____	Depth (inches): 0

Wetland Hydrology Present? **Yes** X **No** ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION – Use scientific names of plants. Sampling Point: Wet B-19

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. *Fraxinus pennsylvanica*	50	Yes	FACW
2. *Rhamnus cathartica*	35	Yes	FAC
3.			
4.			
5.			
6.			
7.			
	85	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15')			
1. *Cornus alba*	15	Yes	FACW
2. *Rhamnus cathartica*	40	Yes	FAC
3. *Fraxinus pennsylvanica*	15	Yes	FACW
4. *Rosa multiflora*	5	No	FACU
5.			
6.			
7.			
	75	=Total Cover	
Herb Stratum (Plot size: 5')			
1. *Solidago rugosa*	25	Yes	FAC
2. *Acer rubrum*	2	No	FAC
3. *Rhamnus cathartica*	10	Yes	FAC
4. *Lonicera tatarica*	2	No	FACU
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	39	=Total Cover	
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
3.			
4.			
		=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 7 (A)

Total Number of Dominant Species Across All Strata: 7 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	80	x 2 =	160
FAC species	112	x 3 =	336
FACU species	7	x 4 =	28
UPL species	0	x 5 =	0
Column Totals:	199 (A)		524 (B)

Prevalence Index = B/A = 2.63

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

_X_ 2 - Dominance Test is >50%

_X_ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** X **No** ___

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point Wet B-19

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-10	7.5YR 3/2	95	7.5YR 4/6	5	C	M	Loamy/Clayey	Prominent redox concentrations
10-15	7.5YR 3/1	55	7.5YR 4/3	45	C	M	Loamy/Clayey	Distinct redox concentrations
15-21	7.5YR 3/3	85	7.5YR 3/2	15	C	M	Loamy/Clayey	Faint redox concentrations

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- X Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: none

Depth (inches): ___

Hydric Soil Present? **Yes** X **No** ___

Remarks:

This data form is revised from Northcentral and Northeast Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 7.0, 2015 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: GRIA Off Airport Tree Obstruction Removal City/County: Chili & Rochester/ Monroe Sampling Date: 10/21/19

Applicant/Owner: Monroe County Airport Authority State: NY Sampling Point: Dry B-15

Investigator(s): N. Frazer and C. Scrivner Section, Township, Range:

Landform (hillside, terrace, etc.): flat Local relief (concave, convex, none): none Slope %: 0

Subregion (LRR or MLRA): LRR L Lat: Long: Datum:

Soil Map Unit Name: Canandaigua silt loam (Ca) NWI classification: n/a

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes x No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area**
Hydric Soil Present?	Yes ____	No X	**within a Wetland?** **Yes** ____ **No** X
Wetland Hydrology Present?	Yes ____	No X	If yes, optional Wetland Site ID:

Remarks: (Explain alternative procedures here or in a separate report.)
Successional northern hardwoods

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No x	Depth (inches): ____
Water Table Present?	Yes ____	No x	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No x	Depth (inches): ____

Wetland Hydrology Present? **Yes** ____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION – Use scientific names of plants. Sampling Point: Dry B-15

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. *Rhamnus cathartica*	75	Yes	FAC
2.			
3.			
4.			
5.			
6.			
7.			
	75	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15')			
1. *Rosa multiflora*	25	Yes	FACU
2. *Fraxinus pennsylvanica*	2	No	FACW
3. *Cornus alba*	10	Yes	FACW
4. *Populus tremuloides*	5	No	FACU
5. *Lonicera tatarica*	10	Yes	FACU
6.			
7.			
	52	=Total Cover	
Herb Stratum (Plot size: 5')			
1. *Solidago rugosa*	35	Yes	FAC
2. *Rosa multiflora*	10	Yes	FACU
3. *Vicia species*	5	No	
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	50	=Total Cover	
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
3.			
4.			
		=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	12	x 2 =	24
FAC species	110	x 3 =	330
FACU species	50	x 4 =	200
UPL species	0	x 5 =	0
Column Totals:	172 (A)		554 (B)

Prevalence Index = B/A = 3.22

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** ___ **No** X

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: Dry B-15

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-10	7.5YR 4/3	90	7.5YR 4/6	10	C	M	Loamy/Clayey	Distinct redox concentrations
10-21	5YR 4/2	85	10YR 4/3	15	C	M	Loamy/Clayey	Distinct redox concentrations

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: none

Depth (inches): _____

Hydric Soil Present? **Yes** ____ **No** X

Remarks:

This data form is revised from Northcentral and Northeast Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 7.0, 2015 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: GRIA Off Airport Tree Obstruction Removal City/County: Chili & Rochester/ Monroe Sampling Date: 10/21/19

Applicant/Owner: Monroe County Airport Authority State: NY Sampling Point: Wet C-2

Investigator(s): N. Frazer and C. Scrivner Section, Township, Range:

Landform (hillside, terrace, etc.): depression Local relief (concave, convex, none): concave Slope %: 0-1

Subregion (LRR or MLRA): LRR L Lat: Long: Datum:

Soil Map Unit Name: Canandaigua silt loam (Ca) NWI classification: PFO1

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes x No

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No	**Is the Sampled Area**
Hydric Soil Present?	Yes x	No	**within a Wetland?** **Yes** X **No**
Wetland Hydrology Present?	Yes X	No	If yes, optional Wetland Site ID: Wetland C- near flag C-2

Remarks: (Explain alternative procedures here or in a separate report.)

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- X Surface Water (A1)
- X High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- x Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- x Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes x	No	Depth (inches): 0.5
Water Table Present?	Yes x	No	Depth (inches): 0.5
Saturation Present? (includes capillary fringe)	Yes x	No	Depth (inches): 0

Wetland Hydrology Present? **Yes** X **No**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION – Use scientific names of plants. Sampling Point: Wet C-2

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. *Fraxinus pennsylvanica*	40	Yes	FACW
2. *Rhamnus cathartica*	30	Yes	FAC
3.			
4.			
5.			
6.			
7.			
	70	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15')			
1. *Rhamnus cathartica*	5	No	FAC
2. *Cornus alba*	35	Yes	FACW
3.			
4.			
5.			
6.			
7.			
	40	=Total Cover	
Herb Stratum (Plot size: 5')			
1. *Fraxinus pennsylvanica*	5	No	FACW
2. *Cornus alba*	15	Yes	FACW
3. *Acer rubrum*	5	No	FAC
4. *Solidago gigantea*	20	Yes	FACW
5. *Rosa multiflora*	2	No	FACU
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	47	=Total Cover	
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
3.			
4.			
		=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	115	x 2 =	230
FAC species	40	x 3 =	120
FACU species	2	x 4 =	8
UPL species	0	x 5 =	0
Column Totals:	157 (A)		358 (B)

Prevalence Index = B/A = 2.28

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

_X_ 2 - Dominance Test is >50%

_X_ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** X **No** ___

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: Wet C-2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-6	10YR 2/1	100					Muck	
6-11	10YR 3/1	75	10YR 4/3	25	C	M	Loamy/Clayey	Distinct redox concentrations
11-16	7.5YR 2.5/3	85	7.5YR 3/1	15	C	M	Loamy/Clayey	Faint redox concentrations

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- X Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: none

Depth (inches): ___

Hydric Soil Present? Yes X No ___

Remarks:

This data form is revised from Northcentral and Northeast Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 7.0, 2015 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: GRIA Off Airport Tree Obstruction Removal City/County: Chili & Rochester/ Monroe Sampling Date: 10/21/19

Applicant/Owner: Monroe County Airport Authority State: NY Sampling Point: Dry C-2

Investigator(s): N. Frazer and C. Scrivner Section, Township, Range:

Landform (hillside, terrace, etc.): hillslope Local relief (concave, convex, none): convex Slope %: 2

Subregion (LRR or MLRA): LRR L Lat: Long: Datum:

Soil Map Unit Name: Canandaigua silt loam (Ca) NWI classification: n/a

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes x No

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	No X	**Is the Sampled Area**
Hydric Soil Present?	Yes	No X	**within a Wetland?** **Yes** **No** X
Wetland Hydrology Present?	Yes	No X	If yes, optional Wetland Site ID:

Remarks: (Explain alternative procedures here or in a separate report.)
Successional northern hardwoods

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes	No x	Depth (inches):
Water Table Present?	Yes	No x	Depth (inches):
Saturation Present? (includes capillary fringe)	Yes	No x	Depth (inches):

Wetland Hydrology Present? **Yes** **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION – Use scientific names of plants. Sampling Point: Dry C-2

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. *Picea abies*	70	Yes	UPL
2. *Acer saccharum*	25	Yes	FACU
3. *Rhamnus cathartica*	5	No	FAC
4.			
5.			
6.			
7.			
	100	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
		=Total Cover	
Herb Stratum (Plot size: 5')			
1. *Acer saccharum*	2	No	FACU
2. *Picea abies*	2	No	UPL
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	4	=Total Cover	
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
3.			
4.			
		=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	5	x 3 =	15
FACU species	27	x 4 =	108
UPL species	72	x 5 =	360
Column Totals:	104 (A)		483 (B)

Prevalence Index = B/A = 4.64

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** ___ **No** X

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point Dry C-2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-13	10YR 2/1	100					Sandy	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
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- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: roots

Depth (inches): 13

Hydric Soil Present? **Yes** ____ **No** X

Remarks:

This data form is revised from Northcentral and Northeast Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 7.0, 2015 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

Appendix C

Photo 1-Wetland at data point A-32.

Photo 2- Soil at wetland data point A-32.

CHA

SITE PHOTOGRAPHS

Greater Rochester International Airport
Off Airport Tree Obstruction Removal
Town of Chili & City of Rochester, Monroe County, NY

Sheet 1	CHA File No. 050495

Photo 3- Dry land at data point A-32.

Photo 4- Soil at dry land data point A-32.

CHA

SITE PHOTOGRAPHS

Greater Rochester International Airport
Off Airport Tree Obstruction Removal
Town of Chili & City of Rochester, Monroe County, NY

Photo 5-View of the stream near flag A-49.

Photo 6-View of wetland near flag A-6 facing east.

CHA

SITE PHOTOGRAPHS

Greater Rochester International Airport
Off Airport Tree Obstruction Removal
Town of Chili & City of Rochester, Monroe County, NY

Photo 7-View of stream and wetland near flag A-13.

Photo 8-View of culvert near flag A-14.

CHA

SITE PHOTOGRAPHS

Greater Rochester International Airport
Off Airport Tree Obstruction Removal
Town of Chili & City of Rochester, Monroe County, NY

Photo 9-View of the stream at flag A-22 facing south.

Photo 10- Wetland at data point B-19.

CHA

SITE PHOTOGRAPHS

Greater Rochester International Airport
Off Airport Tree Obstruction Removal
Town of Chili & City of Rochester, Monroe County, NY

Photo 11- Soil at wetland data point B-19.

Photo 12- Dry land at data point B-15.

CHA

Sheet 6	CHA File No. 050495

SITE PHOTOGRAPHS

Greater Rochester International Airport
Off Airport Tree Obstruction Removal
Town of Chili & City of Rochester, Monroe County, NY

Photo 13- Soil at dry land data point B-15.

Photo 14- Wetland at data point C-2.

CHA

SITE PHOTOGRAPHS

Greater Rochester International Airport
Off Airport Tree Obstruction Removal
Town of Chili & City of Rochester, Monroe County, NY

Photo 15- Soil at wetland data point C-2.

Photo 16- Dry land at data point C-2.

CHA

SITE PHOTOGRAPHS

Greater Rochester International Airport
Off Airport Tree Obstruction Removal
Town of Chili & City of Rochester, Monroe County, NY

Photo 17- Soil at dry land data point C-2.

Photo 18-View of wetland near flag C-24 facing south.

CHA

SITE PHOTOGRAPHS

Greater Rochester International Airport
Off Airport Tree Obstruction Removal
Town of Chili & City of Rochester, Monroe County, NY

Photo 19-View of wetland near flag C-52.

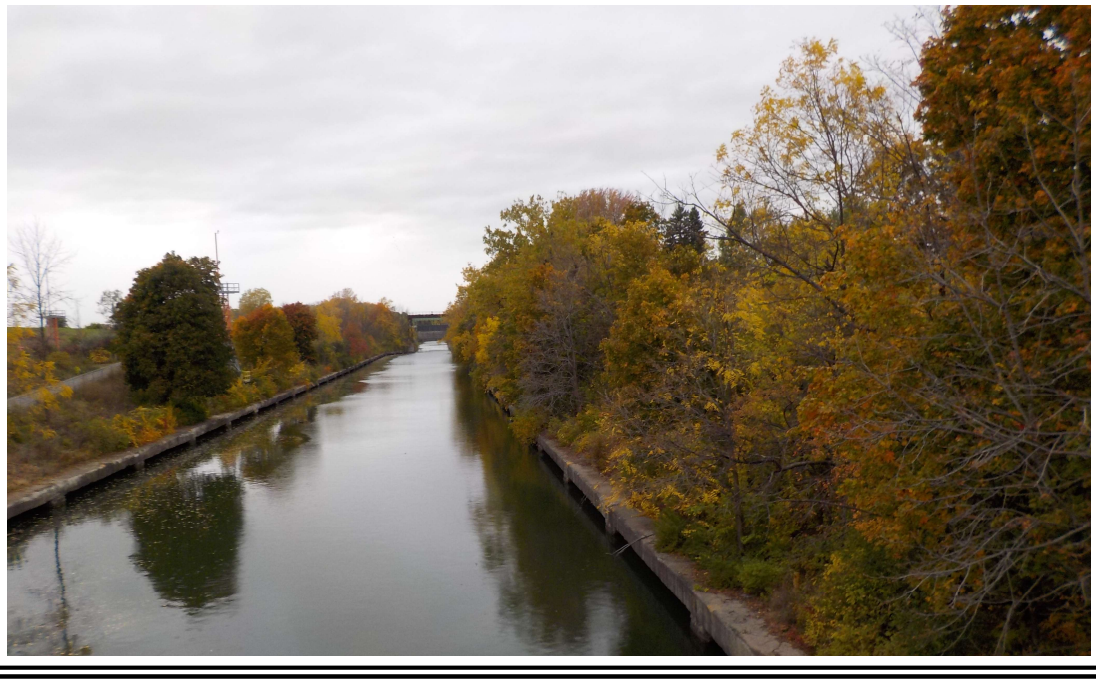


Photo 20-View of the Erie Canal.

CHA

SITE PHOTOGRAPHS

Greater Rochester International Airport
Off Airport Tree Obstruction Removal
Town of Chili & City of Rochester, Monroe County, NY

Sheet 10	CHA File No. 050495

APPENDIX C

United States Department of the Interior

FISH AND WILDLIFE SERVICE
New York Ecological Services Field Office
3817 Luker Road
Cortland, NY 13045-9385
Phone: (607) 753-9334 Fax: (607) 753-9699
http://www.fws.gov/northeast/nyfo/es/section7.htm

In Reply Refer To: January 09, 2020
Consultation Code: 05E1NY00-2019-SLI-3304
Event Code: 05E1NY00-2020-E-03736
Project Name: GRIA Off Airport Tree Cutting (west end)

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

To Whom It May Concern:

The enclosed species list identifies 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 (ESA) of 1973, as amended (16 U.S.C. 1531 *et seq.*). This list can also be used to determine whether listed species may be present for projects without federal agency involvement. New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list.

Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the ESA, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC site at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list. If listed, proposed, or candidate species were identified as potentially occurring in the project area, coordination with our office is encouraged. Information on the steps involved with assessing potential impacts from projects can be found at: http://www.fws.gov/northeast/nyfo/es/section7.htm

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan (http://www.fws.gov/windenergy/

eagle_guidance.html). Additionally, wind energy projects should follow the Services wind energy guidelines (http://www.fws.gov/windenergy/) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm; http://www.towerkill.com; and http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html.

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

Attachment(s):

- Official Species List

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 York Ecological Services Field Office
3817 Luker Road
Cortland, NY 13045-9385
(607) 753-9334

Project Summary

Consultation Code: 05E1NY00-2019-SLI-3304

Event Code: 05E1NY00-2020-E-03736

Project Name: GRIA Off Airport Tree Cutting (west end)

Project Type: TRANSPORTATION

Project Description: The project entails tree cutting, off airport property.

Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/place/43.122791811818416N77.68502294449854W

Counties: Monroe, NY

Endangered Species Act Species

There is a total of 0 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[1], 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.

Critical habitats

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

United States Department of the Interior

FISH AND WILDLIFE SERVICE
New York Ecological Services Field Office
3817 Luker Road
Cortland, NY 13045-9385
Phone: (607) 753-9334 Fax: (607) 753-9699
http://www.fws.gov/northeast/nyfo/es/section7.htm

In Reply Refer To: January 09, 2020
Consultation Code: 05E1NY00-2019-SLI-3303
Event Code: 05E1NY00-2020-E-03738
Project Name: GRIA Off Airport Tree Cutting (east end)

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

To Whom It May Concern:

The enclosed species list identifies 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 (ESA) of 1973, as amended (16 U.S.C. 1531 *et seq.*). This list can also be used to determine whether listed species may be present for projects without federal agency involvement. New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list.

Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the ESA, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC site at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list. If listed, proposed, or candidate species were identified as potentially occurring in the project area, coordination with our office is encouraged. Information on the steps involved with assessing potential impacts from projects can be found at: http://www.fws.gov/northeast/nyfo/es/section7.htm

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan (http://www.fws.gov/windenergy/

eagle_guidance.html). Additionally, wind energy projects should follow the Services wind energy guidelines (http://www.fws.gov/windenergy/) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm; http://www.towerkill.com; and http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html.

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

Attachment(s):

- Official Species List

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 York Ecological Services Field Office
3817 Luker Road
Cortland, NY 13045-9385
(607) 753-9334

Project Summary

Consultation Code: 05E1NY00-2019-SLI-3303

Event Code: 05E1NY00-2020-E-03738

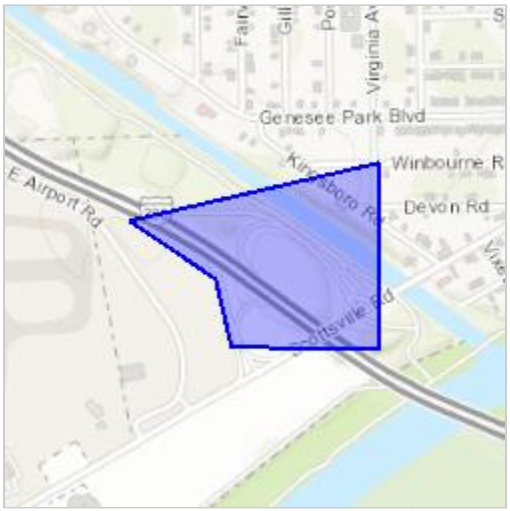
Project Name: GRIA Off Airport Tree Cutting (east end)

Project Type: TRANSPORTATION

Project Description: The project entails tree cutting beyond the runway end, off airport.

Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/place/43.12373542100782N77.64871905897817W



Counties: Monroe, NY

Endangered Species Act Species

There is a total of 0 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[1], 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.

Critical habitats

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

Environmental Resource Mapper

September 11, 2019

1:18,056

0 0.2 0.4 0.8 mi

0 0.35 0.7 1.4 km

Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

NYS Department of Environmental Conservation
Not a legal document

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Fish and Wildlife, New York Natural Heritage Program
625 Broadway, Fifth Floor, Albany, NY 12233-4757
P: (518) 402-8935 | F: (518) 402-8925
www.dec.ny.gov

October 2, 2019

Nicole Frazer
CHA
III Winners Circle
Albany, NY 12205

Re: Greater Rochester International Airport Off Airport Tree Obstruction Removal
(east end Runway 10-28)
County: Monroe Town/City: Chili

Dear Ms. Frazer:

In response to your recent request, we have reviewed the New York Natural Heritage Program database with respect to the above project.

Enclosed is a report of rare or state-listed animals and plants, and significant natural communities that our database indicates occur in the vicinity of the project site.

For most sites, comprehensive field surveys have not been conducted; the enclosed report only includes records from our database. We cannot provide a definitive statement as to the presence or absence of all rare or state-listed species or significant natural communities. Depending on the nature of the project and the conditions at the project site, further information from on-site surveys or other sources may be required to fully assess impacts on biological resources.

Our database is continually growing as records are added and updated. If this proposed project is still under development one year from now, we recommend that you contact us again so that we may update this response with the most current information.

The presence of the plants and animals identified in the enclosed report may result in this project requiring additional review or permit conditions. For further guidance, and for information regarding other permits that may be required under state law for regulated areas or activities (e.g., regulated wetlands), please contact the NYS DEC Region 8 Office, Division of Environmental Permits, at dep.r8@dec.ny.gov, (585) 226-5400.

Sincerely,

Andrea Chaloux

Andrea Chaloux
Environmental Review Specialist
New York Natural Heritage Program

1075

The following rare plants, rare animals, and significant natural communities have been documented in the vicinity of the project site.

We recommend that potential impacts of the proposed project on these species or communities be addressed as part of any environmental assessment or review conducted as part of the planning, permitting and approval process, such as reviews conducted under SEQR. Field surveys of the project site may be necessary to determine whether a species currently occurs at the site, particularly for sites that are currently undeveloped and may still contain suitable habitat. Final requirements of the project to avoid, minimize, or mitigate potential impacts are determined by the lead permitting agency or the government body approving the project.

The following animals, while not listed by New York State as Endangered or Threatened, are rare in New York and are of conservation concern.

COMMON NAME	*SCIENTIFIC NAME*	*NY STATE LISTING*	*HERITAGE CONSERVATION STATUS*
Freshwater Mussels			
Pink Heelsplitter	*Potamilus alatus*	Unlisted	Imperiled in NYS
Genesee River, approximately 0.2 mile south of the project site, 2012-09-07.			13988
Fragile Papershell	*Leptodea fragilis*	Unlisted	Vulnerable in NYS
Genesee River, approximately 0.2 mile south of the project site, 2011-08-05.			15366

This report only includes records from the NY Natural Heritage database. For most sites, comprehensive field surveys have not been conducted, and we cannot provide a definitive statement as to the presence or absence of all rare or state-listed species. Depending on the nature of the project and the conditions at the project site, further information from on-site surveys or other sources may be required to fully assess impacts on biological resources.

If any rare plants or animals are documented during site visits, we request that information on the observations be provided to the New York Natural Heritage Program so that we may update our database.

Information about many of the rare animals and plants in New York, including habitat, biology, identification, conservation, and management, are available online in Natural Heritage's Conservation Guides at www.guides.nynhp.org, from NatureServe Explorer at www.natureserve.org/explorer, and from USDA's Plants Database at http://plants.usda.gov/index.html (for plants).

Information about many of the natural community types in New York, including identification, dominant and characteristic vegetation, distribution, conservation, and management, is available online in Natural Heritage's Conservation Guides at www.guides.nynhp.org. For descriptions of all community types, go to www.dec.ny.gov/animals/97703.html for Ecological Communities of New York State.

APPENDIX D

NEW YORK STATE OF OPPORTUNITY. | Parks, Recreation, and Historic Preservation

ANDREW M. CUOMO
Governor

ERIK KULLESEID
Commissioner

December 10, 2019

Mrs. Nicole Frazer
Senior Scientist
CHA
III Winners Circle
Albany, NY 12205

Re: FAA
Greater Rochester International Airport Off Airport Tree Obstruction Removal Runway 10-28
1200 Brooks Avenue, Rochester & Chili, Monroe County, NY
19PR07997

Dear Mrs. Frazer:

Thank you for requesting the comments of the New York State Historic Preservation Office (SHPO). We have reviewed the provided documentation in accordance with Section 106 of the National Historic Preservation Act of 1966. These comments are those of the SHPO and relate only to Historic/Cultural resources. They do not include other environmental impacts to New York State Parkland that may be involved in or near your project. Such impacts must be considered as part of the environmental review of the project pursuant to the National Environmental Policy Act and/or the State Environmental Quality Review Act (New York Environmental Conservation Law Article 8).

We note that the proposed project is adjacent to the New York State Barge Canal Historic District, a National Historic Landmark. We have reviewed the submission received on November 21, 2019. Based on that review it is the SHPO's opinion that the project, as proposed, will No Adverse Effect on the National Historic Landmark.

If you have any questions, I can be reached at 518-268-2170.

Sincerely,

Robyn Sedgwick
Historic Site Restoration Coordinator
e-mail: robyn.sedgwick@parks.ny.gov

via e-mail only

Frazer, Nicole

From: Joe Stahlman <Joe.Stahlman@sni.org>
Sent: Tuesday, December 3, 2019 9:07 AM
To: Frazer, Nicole
Subject: RE: CHA Project No.: 050495

I'm well. Thank you. No, not now. The email was my response.

Thank you,

From: Frazer, Nicole [mailto:NFrazer@chacompanies.com]
Sent: Tuesday, December 3, 2019 9:05 AM
To: Joe Stahlman <Joe.Stahlman@sni.org>
Subject: RE: CHA Project No.: 050495

Good morning,

How are you? Yes I will add you to the contact list. Will you be sending along a response email or letter?

Thanks

From: Joe Stahlman <Joe.Stahlman@sni.org>
Sent: Tuesday, December 3, 2019 8:37 AM
To: Frazer, Nicole <NFrazer@chacompanies.com>
Subject: Re: CHA Project No.: 050495

Hi Nicole,
I'm Joe Stahlman, the Seneca Nation THPO. How do you do?
I'm writing today, so I can be included on all future for CHA Project No.: 050495.

I can be reached through any of the contacts listed below.

Thank you,
Joe

Dr. Joe Stahlman
Director
Seneca-Iroquois National Museum
Tribal Historic Preservation Office
Onõhsagwë: De' Cultural Center
82 W. Hetzel Street
Salamanca, NY 14778
Phone (716) 945-1760
Cell (716) 277-5580
Joe.Stahlman@sni.org

This email and any files transmitted with it are confidential and intended solely for the use of the individual or entity to whom they are addressed. If you have received this email in error please delete this message. Please note that any views or opinions presented in this email are solely those of the author and do not necessarily represent those of the company. Finally, the recipient should check this email and any attachments for the presence of viruses. The company accepts no liability for any damage caused by any virus transmitted by this email. www.sni.org

November 14, 2019

Mr. Rickey Arstrong Sr.
Seneca Nation of Indians
90 Ohiyo Way
Salamanca, NY 14779

RE: Greater Rochester International Airport
Off Airport Tree Obstruction Removal Runway 10-28
Town of Chili & City of Rochester, Monroe County, NY
CHA Project No.: 050495
AIP 103-2019

Dear Mr. Arstrong:

Monroe County is proposing off airport tree obstruction removal associated with Runway 10-28 of the Greater Rochester International Airport. Refer to Attachment A for a USGS Project Location Map and Attachment B for an aerial of the project areas for further details.

On the Airport and State property, the tree removal will include clearing, but not grubbing (i.e., retention of the stumps and root balls) of all trees over 10' in height. Small trees and understory will be retained, with the goal to preserve the property as an undeveloped meadow and scrub-shrub community. In private, residential areas, the tree removal will include the same approach; however, if requested by owners, removal of the tree stumps, with minor grading and seeding, removal of woodchips, and general restoration (i.e., clean-up) will be completed.

The New York State Office of Parks, Recreation and Historic Preservation (NYSOPRHP) Cultural Resource Information System (CRIS) was reviewed. The CRIS indicates that the east side of the project area is within area designated as archeologically sensitive. Additionally, that end of the project includes trees that are within or abutting the New York State Barge Canal Historic District (NR Number 14NR06559).

The project areas are primarily a mix of undeveloped forest, highway interchange and residential areas. Refer to Attachment C for representative site photographs of the project areas. The Monroe County Soil Survey indicates that some of the soils within the project areas consist of Made Land (Mb) and Urban Land (Ub) (Attachment D).

Impacts to cultural resources are not anticipated due to previous disturbance caused by residential activities and road construction and the fact that portions of the site are mapped by the Natural Resources Conservation Service as made land and urban land. Additionally, tree removal on State and Airport owned property will not include grubbing and the west side of the project area is not designated as archeologically sensitive. Refer to Appendix E for a map of the State and Airport owned property.

III Winners Circle, PO Box 5269, Albany, NY 12205-0269
T 518.453.4500 • F 518.458.1735 • www.chacompanies.com

We request your comments on any potential impacts to historic properties that your tribe may attach religious and cultural significance. Should you have any questions, please contact me at 518-453-8211 or nfrazer@chacompanies.com.

Sincerely,

Nicole E. Frazer
Senior Scientist

CC (via email): Gary Gaskin- Monroe County

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November 14, 2019

Mr. Roger Hill
Tonawanda Band of Seneca
7027 Meadville Road
Bascom, NY 14013

RE: Greater Rochester International Airport
Off Airport Tree Obstruction Removal Runway 10-28
Town of Chili & City of Rochester, Monroe County, NY
CHA Project No.: 050495
AIP 103-2019

Dear Mr. Hill:

Monroe County is proposing off airport tree obstruction removal associated with Runway 10-28 of the Greater Rochester International Airport. Refer to Attachment A for a USGS Project Location Map and Attachment B for an aerial of the project areas for further details.

On the Airport and State property, the tree removal will include clearing, but not grubbing (i.e., retention of the stumps and root balls) of all trees over 10' in height. Small trees and understory will be retained, with the goal to preserve the property as an undeveloped meadow and scrub shrub community. In private, residential areas, the tree removal will include the same approach; however, if requested by owners, removal of the tree stumps, with minor grading and seeding, removal of woodchips, and general restoration (i.e., clean-up) will be completed.

The New York State Office of Parks, Recreation and Historic Preservation (NYSOPRHP) Cultural Resource Information System (CRIS) was reviewed. The CRIS indicates that the east side of the project area is within area designated as archeologically sensitive. Additionally, that end of the project includes trees that are within or abutting the New York State Barge Canal Historic District (NR Number 14NR06559).

The project areas are primarily a mix of undeveloped forest, highway interchange and residential areas. Refer to Attachment C for representative site photographs of the project areas. The Monroe County Soil Survey indicates that some of the soils within the project areas consist of Made Land (Mb) and Urban Land (Ub) (Attachment D).

Impacts to cultural resources are not anticipated due to previous disturbance caused by residential activities and road construction and the fact that portions of the site are mapped by the Natural Resources Conservation Service as made land and urban land. Additionally, tree removal on State and Airport owned property will not include grubbing and the west side of the project area is not designated as archeologically sensitive. Refer to Appendix E for a map of the State and Airport owned property.

III Winners Circle, PO Box 5269, Albany, NY 12205-0269
T 518.453.4500 • F 518.458.1735 • www.chacompanies.com

We request your comments on any potential impacts to historic properties that your tribe may attach religious and cultural significance. Should you have any questions, please contact me at 518-453-8211 or nfrazer@chacompanies.com.

Sincerely,

Nicole E. Frazer
Senior Scientist

CC (via email): Gary Gaskin- Monroe County

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December 4, 2019

Mr. Ambrose Barbuto
NYS Canal Corporation
Western Division Canal Engineer
149 Northern Concourse, Suite 400
North Syracuse, NY 13212

Mr. James Candiloro
New York Power Authority
Director of EHS
30 S. Pearl Street, 10th Floor
Albany, NY 12207

RE: Greater Rochester International Airport
Off Airport Tree Obstruction Removal Runway 10-28
Town of Chili & City of Rochester, Monroe County, NY
CHA Project No.: 050495

Dear Mr. Barbuto and Mr. Candiloro:

Monroe County intends to undertake an off-airport tree obstruction removal project associated with Runway 28 of the Greater Rochester International Airport in 2021. Refer to Attachment A for a USGS Project Location Map and Attachment B for an aerial of the project areas for further details. Currently, the County is preparing an Environmental Assessment (EA) under the National Environmental Policy Act. The County also intends to complete the State Environmental Quality Review Act process.

On the adjacent State property along the Erie Canal and Trail, the proposed tree removal would include clearing, but not grubbing (i.e., retention of the stumps and root balls) of all trees over 10' in height. Small trees and understory will be retained, with the goal to preserve the property as a meadow and scrub-shrub community. Refer to Attachment C for a map of the Airport and State-owned property.

The proposed project is necessary to maintain safe, navigable airspace beyond the ends of the runways. Trees are proposed to be removed along the Erie Canal and Trail. The use and access to the canal and trail will remain unchanged. The obstruction removal will not directly impact use of the trail or take any property. The recommended action can be refined based upon your comments.

Please review the attached information and provide us with any comments you may have with this work. Additionally, we are interested in any plans the Canal Corp has for this area, including any removal/vegetation management. Should you have any questions, please contact me at 518-453-8211 or nfrazer@chacompanies.com.

Sincerely,

Nicole E. Frazer
Senior Scientist

Encl.

V:\Projects\ANY\K5\050495.000\Reports\EA\Ecology\Canal Corp

III Winners Circle, PO Box 5269, Albany, NY 12205-0269
T 518.453.4500 • F 518.458.1735 • www.chacompanies.com

APPENDIX E

Greater Rochester International Airport – Off-Site Tree Obstruction Removal
Environmental Assessment
Air Quality Documentation

The proposed Project was evaluated under the Aviation Emissions and Air Quality Handbook (Handbook) published by the Federal Aviation Administration (FAA)[1]. The air quality assessment process is outlined in Section 4.

The first step of the process is to determine the need for the assessment based on four factors:

1. Project Definition
2. FAA Involvement
3. Emissions Increase
4. Ambient Air Quality

1. Project Definition

The purpose of the project is to remove off-site tree obstructions at the Greater Rochester International Airport (ROC) in Rochester, NY. Trees will be removed from the eastern and western ends of Runway 10-28. The project will not cause permanent increases in air or local traffic.

2. FAA Involvement

The project is being partially funded through the FAA's Airport Improvement Program.

3. Emissions Increase

Although the project will not increase the airport capacity, temporary increases in emissions will occur during construction activities.

4. Ambient Air Quality

The airport is located in Monroe County, NY. Monroe County is designated by the Environmental Protection Agency (EPA) as being in attainment with all National Ambient Air Quality Standards and a General Conformity analysis under 40 CFR 93, Subpart B is not required.

Using these four factors and the flowchart in Figure 4-3 of the Handbook, the level of assessment required was determined to be an emission inventory.

<u>Emission Inventory Methodology</u>

The project will not cause permanent increases in air or local traffic. Only emissions from construction activities will be caused as a result of the project.

Emissions from construction activities were estimated using the Airport Construction Emissions Inventory Tool (ACEIT) published by the Airport Cooperative Research Program in Report 102[2].

[1] https://www.faa.gov/regulations_policies/policy_guidance/envir_policy/airquality_handbook/media/Air_Quality_Handbook_Appendices.pdf
[2] http://www.trb.org/ACRP/Blurbs/170234.aspx

ACEIT estimates the construction equipment activity that will be required based on the type and amount of construction being performed. This activity is used with emission factors for construction and other mobile vehicles to estimate the emissions that will result during construction of the project.

ACEIT has been configured with default construction equipment assignments based on the type of construction activity being performed. For tree removal, ACEIT assumes the use of an aerial lift, chipper/stump grinder, dump truck, chain saw, and pickup truck. ACEIT assumes that 8 hours of equipment use is required for every 7.7 trees removed. The number of trees removed was conservatively estimated to be 5,000 trees. The estimated equipment runtime is used with the equipment engine size and EPA emission factors to estimate the emissions.

The estimated equipment types and activities may be edited by the user. For the purposes of this analysis the default options were used, with one exceptions. ACEIT was not calculating the estimated on-road vehicle miles traveled (VMT) for trucks hauling materials from the project site. The VMT for on-road trucks was conservatively estimated as 25,000 miles.

Emission Inventory Results

The project will not cause permanent increases in air or local traffic. Temporary increases in emissions from construction activities were estimated using the ACEIT application and are shown in the table below. The exemption thresholds from 40 CFR 93, Subpart B are shown for reference.

Contaminants included in the analysis were nitrogen oxides (NO_x), carbon monoxide (CO), volatile organic compounds (VOC), sulfur dioxide (SO_2), particulate matter less than 10 microns (PM_{10}), particulate matter less than 2.5 microns ($PM_{2.5}$), carbon dioxide (CO_2), methane (CH_4), and nitrous oxide (N_2O).

Contaminant	NO_X	CO	VOC	SO_2	PM_{10}	$PM_{2.5}$	CO_2	CH_4	N_2O
Emissions (tons/yr)	4.49	14.91	3.55	0.02	0.70	0.64	2,717	0.01	0.002
Exemption Threshold	100	100	50	100	100	100	N/A	N/A	N/A

The estimated emissions from construction activities are not significant and support the determination of a Finding of No Significant Impact (FONSI) for the project.

APPENDIX F

Interoffice Memorandum

To: Paul McDonnell

CC: Nicole Frazer

From: Nicholas Schwartz, RLA
Emily Handelman, RLA

Date: January 15, 2020

Re: Visual impact assessment for Runaway 10-28 tree obstruction removal at Greater Rochester International Airport (ROC)

A portion of the Proposed Action within the eastern project area is located along the Erie Canal and is within or adjacent to the New York State Barge Canal Historic District and potential Environmental Justice community. Given these historic and sensitive resources, the impact of the project on the visual character of the surrounding area has been assessed.

The assessment included two site investigations, one in early October 2019 and another in mid-November 2019. These site investigations allowed the site to be evaluated during both leaf-on and leaf-off conditions. As a result, it was determined that in order to evaluate the greatest potential visual impact to the surrounding area, the existing and proposed conditions should be assessed based on leaf-on conditions. Based on the location of the project, three key views were identified that would show the greatest degree of potential visual impact (see Figure 1 in Appendix A): two views along the Erie Canal Trail and one view from Kingsboro Road. In each view, the impact of the project was evaluated on its effect on the overall visual quality and experience for users of the historic resource.

Key View 1 looks northwest along the Erie Canal Trail with the Erie Canal to the northeast and the I-390 on-ramp to the southwest (see Figure 1 and 2 in Appendix A and B, respectively). The existing visual quality within this corridor is poor due to the scattered tall vegetation along either side of the trail, the presence of the on-ramp, and large overhead cobra roadway lightings. Trail users are likely to move through this section quickly given its proximity to the highway and airport. Figure 3 in Appendix B portrays how this stretch of the trail may look after the project. Most prominent are removal of the large deciduous tree

in the center of the view and the lowering of the tree line to the right hand-side (northeast). Although the removal of the center tree is notable, the lower vegetation adjacent to the trail is maintained and the density of the tree line is preserved. The tree removal may enable users to better visually engage with the Erie Canal. Given the existing visual quality of the view and the amount and type of vegetation remaining, it is anticipated that the project would not likely impact the overall visual quality and experience for users.

Key View 2 looks southeast along the Erie Canal Trail just before the trail splits before going under the Scottsville Road Bridge and into Genesee Valley Park (see Figure 1 and 4 in Appendix A and C, respectively). As in the first view, the existing visual quality within the view is poor due to the inconsistent vegetation adjacent to the trail and presence of unsightly fencing. Figure 5 in Appendix C shows the removal of the large deciduous tree directly northeast of the trail and the deciduous tree on the knoll to the southeast. Select trees within the tree line are also shortened. Although the removal of the tree between the path and the canal allows for more direct views to the east toward Scottsville Road Bridge, the density within the tree line is preserved. As such, the project would not likely impact the overall visual quality and experience for trail users.

Key View 3 looks from Kingsboro Road between houses 89 and 93 within the potential Environmental Justice Community (see Figure 1 and 6 in A and D, respectively). The large deciduous tree behind house 93 (on right) is included within the project. Figure 7 in Appendix D portrays the potential impacts upon completion of the project. Though the removal of the large deciduous tree is notable, other trees in the back and front yards are not impacted, which allows the view to maintain its visual quality. With the removal of select trees on the north side of the canal, it is important to recognize that there may be minor visual impacts to summer time views from the second stories of homes along Kingsboro Road.

In reviewing the existing and proposed conditions in all three views, the Proposed Action would not significantly impact the visual quality and experience for users along the Erie Canal Trail or residents within the Environmental Justice community along Kingsboro Road. Further, no mitigation is recommended at this time.

Appendix A

CHA

Figure 1. Key View Locations
Greater Rochester International Airport
Off Airport Tree Obstruction Removal
Town of Chili & City of Rochester, Monroe County, NY

N

Date: December 2019

CHA Project No. 050495

0 150 300 Feet

Appendix B

CHA	***Figure 2. Key View 1: Existing Conditions*** *Greater Rochester International Airport* *Off Airport Tree Obstruction Removal* *Town of Chili & City of Rochester, Monroe County, NY*	Date: December 2019 CHA Project No. 050495

CHA	***Figure 3. Key View 1: Proposed Conditions*** *Greater Rochester International Airport* *Off Airport Tree Obstruction Removal* *Town of Chili & City of Rochester, Monroe County, NY*	Date: December 2019 CHA Project No. 050495

Appendix C

CHA	***Figure 4. Key View 2: Existing Conditions*** *Greater Rochester International Airport* *Off Airport Tree Obstruction Removal* *Town of Chili & City of Rochester, Monroe County, NY*	Date: December 2019 CHA Project No. 050495

CHA

Figure 5. Key View 2: Proposed Conditions
Greater Rochester International Airport
Off Airport Tree Obstruction Removal
Town of Chili & City of Rochester, Monroe County, NY

Date: December 2019

CHA Project No. 050495

Appendix D

CHA

Figure 6. Key View 3: Existing Conditions
Greater Rochester International Airport
Off Airport Tree Obstruction Removal
Town of Chili & City of Rochester, Monroe County, NY

Date: December 2019

CHA Project No. 050495

CHA

Figure 7. Key View 3: Proposed Conditions
Greater Rochester International Airport
Off Airport Tree Obstruction Removal
Town of Chili & City of Rochester, Monroe County, NY

Date: December 2019

CHA Project No. 050495

APPENDIX G