



Stantec Consulting Services Inc.
482 Payne Road Scarborough Court, Scarborough ME 04074-8929

June 24, 2020
File: 195211197

Attention: Leicester Conservation Commission
3 Washburn Square
Leicester MA, 01524

Dear Commission Members,

Reference: Worcester Regional Airport NOI/2020 VMP Update

Please find enclosed two (2) copies of a Notice of Intent (NOI) and associated vegetation management plan (VMP) update addressing the removal of vegetative obstructions to navigable airspace at Worcester Regional Airport. This work is proposed pursuant to the "limited project" provisions of the Massachusetts Wetlands Protection Act Regulations (310 CMR 10.53). The NOI package includes five (5) copies of the plan set (two full-sized sets and three 11x17 sized sets), the filing fee check, and the affidavit of service for notice to abutters. A copy of the NOI and VMP Update has also been submitted to the MassDEP Central Regional Office for review (DEP filing fee has been submitted to the DEP lockbox).

We look forward to reviewing the project with the Commission. Please do not hesitate to contact me with any questions you may have regarding this submission.

Regards,

Stantec Consulting Services Inc.

A handwritten signature in blue ink, appearing to read "Gregg Cohen".

Gregg Cohen M.S.
Associate
Phone: 207-887-3824
Mobile: 207-807-5847
gregg.cohen@stantec.com

Attachment: Two Copies: NOI & 2020 VMP Update; Five copies of plan set (two full-sized, three half-sized); electronic copies of NOI & VMP (pdf) submitted via email.

c. Mr. Jim Stolecki, Massport

**Notice of Intent
Town of Leicester
Notice of Intent for
2020 Vegetation
Management Plan Update
Worcester Regional
Airport**



Prepared for:

The Massachusetts Port Authority &
Worcester Regional Airport (MPA)

Prepared by:

Stantec Consulting Services Inc.
428 Payne Road
Scarborough, ME 04074

June 2020

NOTICE OF INTENT
TOWN OF LEICESTER
2020 VEGETATION MANAGEMENT PLAN UPDATE
WORCESTER REGIONAL AIRPORT

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**NOTICE OF INTENT
TOWN OF LEICESTER
2020 VEGETATION MANAGEMENT PLAN UPDATE
WORCESTER REGIONAL AIRPORT**

NOTICE OF INTENT
June 2020

1.0 NOTICE OF INTENT

This Notice of Intent (NOI) has been prepared to address the removal of wetland vegetation identified as obstructions to the airspace of Worcester Regional Airport. The 2020 Worcester Regional Airport Vegetation Management Plan (VMP) Update discusses the vegetation removal and maintenance strategies intended to prevent hazards from encroaching into the airport's airspace and is included with this submission. This NOI is atypical of the standard filings that the commission receives. The information required in the document and the adherence to the wetland performance standards must follow the "limited project" language for the proposed activities. The NOI procedures for airport tree clearing were finalized in 2006 with the submission of the final Generic Environmental Notification Form.

Massport worked with the Worcester Regional Airport municipalities (Leicester and Worcester)- and State and Federal agencies in the development of the original VMP for the airport in 2011 and the first update of the VMP in 2012. Massport completed a comprehensive removal project in 2013 and another, smaller removal project in 2016, after the Order of Conditions was amended in 2015. Maintenance regimens, consisting primarily of mowing and herbicide applications were implemented subsequent to the removal projects.

This Notice of Intent is proposed to address newly identified obstructions to protected air surfaces within previously unpermitted areas. Approximately 2.05 acres of wetland vegetation is proposed for removal from five vegetation management areas (VMAs) added to the 2020 VMP Update. These new VMAs are located between Mulberry Street and Paxton Street. An additional 6,534 sq ft of vegetation removal is also proposed within Riverfront Area habitat associated with Kettle Brook. Removal methodologies and follow-up maintenance procedures proposed in the 2020 VMP Update for the new VMAs are consistent with removal and maintenance procedures identified in the previous VMP, intended to minimize impacts to the greatest extent possible.



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

WPA Form 3 – Notice of Intent

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP:

MassDEP File Number

Document Transaction Number

City/Town

Important:

When filling out forms on the computer, use only the tab key to move your cursor - do not use the return key.



Note:
Before completing this form consult your local Conservation Commission regarding any municipal bylaw or ordinance.

A. General Information

1. Project Location (**Note:** electronic filers will click on button to locate project site):

Worcester Regional Airport

Leicester

01524

a. Street Address

b. City/Town

c. Zip Code

Latitude and Longitude:

42 16' 11"

71 52' 19"

d. Latitude

e. Longitude

Maps 6 and 12

6B-1; 6B-4; 6C-1; 12B-1; 12B-2

f. Assessors Map/Plat Number

g. Parcel /Lot Number

2. Applicant:

James

Stolecki

a. First Name

b. Last Name

Massachusetts Port Authority

c. Organization

1 Harborside Drive, Suite 200

d. Street Address

East Boston

MA

02128

e. City/Town

f. State

g. Zip Code

(617) 568-3552

jstolecki@massport.com

h. Phone Number

i. Fax Number

j. Email Address

3. Property owner (required if different from applicant): ☐ Check if more than one owner

a. First Name

b. Last Name

c. Organization

d. Street Address

e. City/Town

f. State

g. Zip Code

h. Phone Number

i. Fax Number

j. Email address

4. Representative (if any):

Gregg

Cohen

a. First Name

b. Last Name

Stantec

c. Company

482 Payne Road

d. Street Address

Scarborough

ME

04074

e. City/Town

f. State

g. Zip Code

(207) 887-3824

gregg.cohen@stantec.com

h. Phone Number

i. Fax Number

j. Email address

5. Total WPA Fee Paid (from NOI Wetland Fee Transmittal Form):

\$2,175.00

\$1,075.00

\$1,100.00

a. Total Fee Paid

b. State Fee Paid

c. City/Town Fee Paid



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A. General Information (continued)

6. General Project Description:

Per FAA requirements, vegetation management is required within the Worcester Regional Airport Airspace. This involves removal of trees obstructing protected air surfaces as well as the long-term maintenance of those areas to prevent obstructions to air surfaces from reoccurring. See attached Vegetation Management Plan (VMP) Update for a description of removal and maintenance activities.

7a. Project Type Checklist: (Limited Project Types see Section A. 7b.)

- | | |
|---|---|
| 1. ☐ Single Family Home | 2. ☐ Residential Subdivision |
| 3. ☐ Commercial/Industrial | 4. ☐ Dock/Pier |
| 5. ☐ Utilities | 6. ☐ Coastal engineering Structure |
| 7. ☐ Agriculture (e.g., cranberries, forestry) | 8. ☒ Transportation |
| 9. ☐ Other | |

7b. Is any portion of the proposed activity eligible to be treated as a limited project (including Ecological Restoration Limited Project) subject to 310 CMR 10.24 (coastal) or 310 CMR 10.53 (inland)?

1. ☒ Yes ☐ No If yes, describe which limited project applies to this project. (See 310 CMR 10.24 and 10.53 for a complete list and description of limited project types)
- 310 CMR 10.53 (3)(n) Airport Vegetation Removal Projects

2. Limited Project Type

If the proposed activity is eligible to be treated as an Ecological Restoration Limited Project (310 CMR 10.24(8), 310 CMR 10.53(4)), complete and attach Appendix A: Ecological Restoration Limited Project Checklist and Signed Certification.

8. Property recorded at the Registry of Deeds for:

Worcester

a. County

45993

c. Book

b. Certificate # (if registered land)

1

d. Page Number

B. Buffer Zone & Resource Area Impacts (temporary & permanent)

- ☐ Buffer Zone Only – Check if the project is located only in the Buffer Zone of a Bordering Vegetated Wetland, Inland Bank, or Coastal Resource Area.
- ☒ Inland Resource Areas (see 310 CMR 10.54-10.58; if not applicable, go to Section B.3, Coastal Resource Areas).

Check all that apply below. Attach narrative and any supporting documentation describing how the project will meet all performance standards for each of the resource areas altered, including standards requiring consideration of alternative project design or location.



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B. Buffer Zone & Resource Area Impacts (temporary & permanent) (cont'd)

For all projects affecting other Resource Areas, please attach a narrative explaining how the resource area was delineated.

Resource Area	Size of Proposed Alteration	Proposed Replacement (if any)
a. ☐ Bank	1. linear feet	2. linear feet
b. ☒ Bordering Vegetated Wetland	89,733 1. square feet	No loss proposed 2. square feet
c. ☐ Land Under Waterbodies and Waterways	1. square feet 3. cubic yards dredged	2. square feet

Resource Area	Size of Proposed Alteration	Proposed Replacement (if any)
d. ☐ Bordering Land Subject to Flooding	1. square feet 3. cubic feet of flood storage lost	2. square feet 4. cubic feet replaced
e. ☐ Isolated Land Subject to Flooding	1. square feet 2. cubic feet of flood storage lost	3. cubic feet replaced
f. ☒ Riverfront Area	Kettle Brook 1. Name of Waterway (if available) - specify coastal or inland	

2. Width of Riverfront Area (check one):

- ☐ 25 ft. - Designated Densely Developed Areas only
- ☐ 100 ft. - New agricultural projects only
- ☒ 200 ft. - All other projects

3. Total area of Riverfront Area on the site of the proposed project: 2,221,561.0
square feet

4. Proposed alteration of the Riverfront Area:

<u>6,534</u>	<u>0</u>	<u>6,534</u>
a. total square feet	b. square feet within 100 ft.	c. square feet between 100 ft. and 200 ft.

5. Has an alternatives analysis been done and is it attached to this NOI? ☒ Yes ☐ No

6. Was the lot where the activity is proposed created prior to August 1, 1996? ☒ Yes ☐ No

3. ☐ Coastal Resource Areas: (See 310 CMR 10.25-10.35)

Note: for coastal riverfront areas, please complete **Section B.2.f.** above.



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B. Buffer Zone & Resource Area Impacts (temporary & permanent) (cont'd)

Check all that apply below. Attach narrative and supporting documentation describing how the project will meet all performance standards for each of the resource areas altered, including standards requiring consideration of alternative project design or location.

Online Users:
Include your document transaction number (provided on your receipt page) with all supplementary information you submit to the Department.

<u>Resource Area</u>	<u>Size of Proposed Alteration</u>	<u>Proposed Replacement (if any)</u>
a. ☐ Designated Port Areas	Indicate size under Land Under the Ocean, below	
b. ☐ Land Under the Ocean	1. square feet _____ 2. cubic yards dredged _____	
c. ☐ Barrier Beach	Indicate size under Coastal Beaches and/or Coastal Dunes below	
d. ☐ Coastal Beaches	1. square feet _____	2. cubic yards beach nourishment _____
e. ☐ Coastal Dunes	1. square feet _____	2. cubic yards dune nourishment _____
	<u>Size of Proposed Alteration</u>	<u>Proposed Replacement (if any)</u>
f. ☐ Coastal Banks	1. linear feet _____	
g. ☐ Rocky Intertidal Shores	1. square feet _____	
h. ☐ Salt Marshes	1. square feet _____	2. sq ft restoration, rehab., creation _____
i. ☐ Land Under Salt Ponds	1. square feet _____	
	2. cubic yards dredged _____	
j. ☐ Land Containing Shellfish	1. square feet _____	
k. ☐ Fish Runs	Indicate size under Coastal Banks, inland Bank, Land Under the Ocean, and/or inland Land Under Waterbodies and Waterways, above	
	1. cubic yards dredged _____	
l. ☐ Land Subject to Coastal Storm Flowage	1. square feet _____	
4. ☐ Restoration/Enhancement		
If the project is for the purpose of restoring or enhancing a wetland resource area in addition to the square footage that has been entered in Section B.2.b or B.3.h above, please enter the additional amount here.		
a. square feet of BVW _____	b. square feet of Salt Marsh _____	
5. ☐ Project Involves Stream Crossings		
a. number of new stream crossings _____	b. number of replacement stream crossings _____	



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C. Other Applicable Standards and Requirements

- ☐ This is a proposal for an Ecological Restoration Limited Project. Skip Section C and complete Appendix A: Ecological Restoration Limited Project Checklists – Required Actions (310 CMR 10.11).

Streamlined Massachusetts Endangered Species Act/Wetlands Protection Act Review

1. Is any portion of the proposed project located in **Estimated Habitat of Rare Wildlife** as indicated on the most recent Estimated Habitat Map of State-Listed Rare Wetland Wildlife published by the Natural Heritage and Endangered Species Program (NHESP)? To view habitat maps, see the *Massachusetts Natural Heritage Atlas* or go to http://maps.massgis.state.ma.us/PRI_EST_HAB/viewer.htm.

a. ☐ Yes ☒ No

If yes, include proof of mailing or hand delivery of NOI to:

**Natural Heritage and Endangered Species Program
Division of Fisheries and Wildlife
1 Rabbit Hill Road
Westborough, MA 01581**

b. Date of map

If yes, the project is also subject to Massachusetts Endangered Species Act (MESA) review (321 CMR 10.18). To qualify for a streamlined, 30-day, MESA/Wetlands Protection Act review, please complete Section C.1.c, and include requested materials with this Notice of Intent (NOI); *OR* complete Section C.2.f, if applicable. *If MESA supplemental information is not included with the NOI, by completing Section 1 of this form, the NHESP will require a separate MESA filing which may take up to 90 days to review (unless noted exceptions in Section 2 apply, see below).*

- c. Submit Supplemental Information for Endangered Species Review*

1. ☐ Percentage/acreage of property to be altered:

(a) within wetland Resource Area

percentage/acreage

(b) outside Resource Area

percentage/acreage

2. ☐ Assessor's Map or right-of-way plan of site

2. ☐ Project plans for entire project site, including wetland resource areas and areas outside of wetlands jurisdiction, showing existing and proposed conditions, existing and proposed tree/vegetation clearing line, and clearly demarcated limits of work **

(a) ☐ Project description (including description of impacts outside of wetland resource area & buffer zone)

(b) ☐ Photographs representative of the site

* Some projects **not** in Estimated Habitat may be located in Priority Habitat, and require NHESP review (see <http://www.mass.gov/eea/agencies/dfg/dfw/natural-heritage/regulatory-review/>). Priority Habitat includes habitat for state-listed plants and strictly upland species not protected by the Wetlands Protection Act.

** MESA projects may not be segmented (321 CMR 10.16). The applicant must disclose full development plans even if such plans are not required as part of the Notice of Intent process.



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C. Other Applicable Standards and Requirements (cont'd)

- (c) ☐ MESA filing fee (fee information available at http://www.mass.gov/dfwele/dfw/nhosp/regulatory_review/ mesa/ mesa_fee_schedule.htm). Make check payable to "Commonwealth of Massachusetts - NHESP" and **mail to NHESP** at above address

Projects altering 10 or more acres of land, also submit:

- (d) ☐ Vegetation cover type map of site
- (e) ☐ Project plans showing Priority & Estimated Habitat boundaries
- (f) OR Check One of the Following

1. ☐ Project is exempt from MESA review.
Attach applicant letter indicating which MESA exemption applies. (See 321 CMR 10.14, http://www.mass.gov/dfwele/dfw/nhosp/regulatory_review/ mesa/ mesa_exemptions.htm; the NOI must still be sent to NHESP if the project is within estimated habitat pursuant to 310 CMR 10.37 and 10.59.)

2. ☐ Separate MESA review ongoing. a. NHESP Tracking # _____ b. Date submitted to NHESP _____

3. ☐ Separate MESA review completed.
Include copy of NHESP "no Take" determination or valid Conservation & Management Permit with approved plan.

3. For coastal projects only, is any portion of the proposed project located below the mean high water line or in a fish run?

- a. ☐ Not applicable – project is in inland resource area only b. ☐ Yes ☐ No

If yes, include proof of mailing, hand delivery, or electronic delivery of NOI to either:

South Shore - Cohasset to Rhode Island border, and the Cape & Islands:

Division of Marine Fisheries -
Southeast Marine Fisheries Station
Attn: Environmental Reviewer
836 South Rodney French Blvd.
New Bedford, MA 02744
Email: DMF.EnvReview-South@state.ma.us

North Shore - Hull to New Hampshire border:

Division of Marine Fisheries -
North Shore Office
Attn: Environmental Reviewer
30 Emerson Avenue
Gloucester, MA 01930
Email: DMF.EnvReview-North@state.ma.us

Also if yes, the project may require a Chapter 91 license. For coastal towns in the Northeast Region, please contact MassDEP's Boston Office. For coastal towns in the Southeast Region, please contact MassDEP's Southeast Regional Office.



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

WPA Form 3 – Notice of Intent

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP:

MassDEP File Number

Document Transaction Number

City/Town

C. Other Applicable Standards and Requirements (cont'd)

Online Users:

Include your document transaction number (provided on your receipt page) with all supplementary information you submit to the Department.

4. Is any portion of the proposed project within an Area of Critical Environmental Concern (ACEC)?
 - a. ☐ Yes ☒ No If yes, provide name of ACEC (see instructions to WPA Form 3 or MassDEP Website for ACEC locations). **Note:** electronic filers click on Website.
 - b. ACEC
5. Is any portion of the proposed project within an area designated as an Outstanding Resource Water (ORW) as designated in the Massachusetts Surface Water Quality Standards, 314 CMR 4.00?
 - a. ☒ Yes ☐ No
6. Is any portion of the site subject to a Wetlands Restriction Order under the Inland Wetlands Restriction Act (M.G.L. c. 131, § 40A) or the Coastal Wetlands Restriction Act (M.G.L. c. 130, § 105)?
 - a. ☐ Yes ☒ No
7. Is this project subject to provisions of the MassDEP Stormwater Management Standards?
 - a. ☐ Yes. Attach a copy of the Stormwater Report as required by the Stormwater Management Standards per 310 CMR 10.05(6)(k)-(q) and check if:
 1. ☐ Applying for Low Impact Development (LID) site design credits (as described in Stormwater Management Handbook Vol. 2, Chapter 3)
 2. ☐ A portion of the site constitutes redevelopment
 3. ☐ Proprietary BMPs are included in the Stormwater Management System.
 - b. ☒ No. Check why the project is exempt:
 1. ☐ Single-family house
 2. ☐ Emergency road repair
 3. ☐ Small Residential Subdivision (less than or equal to 4 single-family houses or less than or equal to 4 units in multi-family housing project) with no discharge to Critical Areas.

D. Additional Information

- ☐ This is a proposal for an Ecological Restoration Limited Project. Skip Section D and complete Appendix A: Ecological Restoration Notice of Intent – Minimum Required Documents (310 CMR 10.12).

Applicants must include the following with this Notice of Intent (NOI). See instructions for details.

Online Users: Attach the document transaction number (provided on your receipt page) for any of the following information you submit to the Department.

1. ☒ USGS or other map of the area (along with a narrative description, if necessary) containing sufficient information for the Conservation Commission and the Department to locate the site. (Electronic filers may omit this item.)
2. ☒ Plans identifying the location of proposed activities (including activities proposed to serve as a Bordering Vegetated Wetland [BVW] replication area or other mitigating measure) relative to the boundaries of each affected resource area.



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

WPA Form 3 – Notice of Intent

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP:

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City/Town

D. Additional Information (cont'd)

3. ☒ Identify the method for BVW and other resource area boundary delineations (MassDEP BVW Field Data Form(s), Determination of Applicability, Order of Resource Area Delineation, etc.), and attach documentation of the methodology.
4. ☐ List the titles and dates for all plans and other materials submitted with this NOI.
- See attached VMP, NOI & Wetlands Report
- a. Plan Title
- b. Prepared By John Henry
- c. Signed and Stamped by
- d. Final Revision Date Stantec
- e. Scale
- f. Additional Plan or Document Title 4/6/2020
- g. Date
5. ☐ If there is more than one property owner, please attach a list of these property owners not listed on this form.
6. ☐ Attach proof of mailing for Natural Heritage and Endangered Species Program, if needed.
7. ☐ Attach proof of mailing for Massachusetts Division of Marine Fisheries, if needed.
8. ☒ Attach NOI Wetland Fee Transmittal Form
9. ☐ Attach Stormwater Report, if needed.

E. Fees

1. ☐ Fee Exempt: No filing fee shall be assessed for projects of any city, town, county, or district of the Commonwealth, federally recognized Indian tribe housing authority, municipal housing authority, or the Massachusetts Bay Transportation Authority.

Applicants must submit the following information (in addition to pages 1 and 2 of the NOI Wetland Fee Transmittal Form) to confirm fee payment:

- | | |
|------------------------------------|-----------------------------------|
| 0000194533 | June 8, 2020 |
| 2. Municipal Check Number | 3. Check date |
| 0000194494 | June 8, 2020 |
| 4. State Check Number | 5. Check date |
| Massport | |
| 6. Payor name on check: First Name | 7. Payor name on check: Last Name |



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

WPA Form 3 – Notice of Intent

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F. Signatures and Submittal Requirements

I hereby certify under the penalties of perjury that the foregoing Notice of Intent and accompanying plans, documents, and supporting data are true and complete to the best of my knowledge. I understand that the Conservation Commission will place notification of this Notice in a local newspaper at the expense of the applicant in accordance with the wetlands regulations, 310 CMR 10.05(5)(a).

I further certify under penalties of perjury that all abutters were notified of this application, pursuant to the requirements of M.G.L. c. 131, § 40. Notice must be made by Certificate of Mailing or in writing by hand delivery or certified mail (return receipt requested) to all abutters within 100 feet of the property line of the project location.

James Stolecki

1. Signature of Applicant

06/22/2020

2. Date

3. Signature of Property Owner (if different)

4. Date

James Stolecki

6/5/2020

5. Signature of Representative (if any)

6. Date

For Conservation Commission:

Two copies of the completed Notice of Intent (Form 3), including supporting plans and documents, two copies of the NOI Wetland Fee Transmittal Form, and the city/town fee payment, to the Conservation Commission by certified mail or hand delivery.

For MassDEP:

One copy of the completed Notice of Intent (Form 3), including supporting plans and documents, one copy of the NOI Wetland Fee Transmittal Form, and a **copy** of the state fee payment to the MassDEP Regional Office (see Instructions) by certified mail or hand delivery.

Other:

If the applicant has checked the "yes" box in any part of Section C, Item 3, above, refer to that section and the Instructions for additional submittal requirements.

The original and copies must be sent simultaneously. Failure by the applicant to send copies in a timely manner may result in dismissal of the Notice of Intent.



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands
NOI Wetland Fee Transmittal Form
Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Important: When filling out forms on the computer, use only the tab key to move your cursor - do not use the return key.



A. Applicant Information

1. Location of Project:

375 Airport Drive

a. Street Address

Worcester

b. City/Town

c. Check number

d. Fee amount

2. Applicant Mailing Address:

James

a. First Name

Stolecki

b. Last Name

Massachusetts Port Authority

c. Organization

1 Harborside Drive, Suite 200

d. Mailing Address

East Boston

e. City/Town

MA

f. State

02128

g. Zip Code

(617) 568-3552

h. Phone Number

i. Fax Number

jstolecki@massport.com

j. Email Address

3. Property Owner (if different):

a. First Name

b. Last Name

c. Organization

d. Mailing Address

e. City/Town

f. State

g. Zip Code

h. Phone Number

i. Fax Number

j. Email Address

B. Fees

Fee should be calculated using the following process & worksheet. **Please see Instructions before filling out worksheet.**

Step 1/Type of Activity: Describe each type of activity that will occur in wetland resource area and buffer zone.

Step 2/Number of Activities: Identify the number of each type of activity.

Step 3/Individual Activity Fee: Identify each activity fee from the six project categories listed in the instructions.

Step 4/Subtotal Activity Fee: Multiply the number of activities (identified in Step 2) times the fee per category (identified in Step 3) to reach a subtotal fee amount. Note: If any of these activities are in a Riverfront Area in addition to another Resource Area or the Buffer Zone, the fee per activity should be multiplied by 1.5 and then added to the subtotal amount.

Step 5/Total Project Fee: Determine the total project fee by adding the subtotal amounts from Step 4.

Step 6/Fee Payments: To calculate the state share of the fee, divide the total fee in half and subtract \$12.50. To calculate the city/town share of the fee, divide the total fee in half and add \$12.50.

To calculate filing fees, refer to the category fee list and examples in the instructions for filling out WPA Form 3 (Notice of Intent).



Step 1/Type of Activity	Step 2/Number of Activities	Step 3/Individual Activity Fee	Step 4/Subtotal Activity Fee
Tree Removal	1	\$1,450.00	\$1,450.00
Step 5/Total Project Fee:			\$1,450 x 1.5
Step 6/Fee Payments:			
Total Project Fee:			\$2,175.00
State share of filing Fee:			a. Total Fee from Step 5 \$1075.00
City/Town share of filling Fee:			b. 1/2 Total Fee less \$12.50 \$1,100.00
			c. 1/2 Total Fee plus \$12.50

a.) Complete pages 1 and 2 and send with a check or money order for the state share of the fee, payable to the Commonwealth of Massachusetts.

b.) **To the Conservation Commission:** Send the Notice of Intent or Abbreviated Notice of Intent; a **copy** of this form; and the city/town fee payment.

To MassDEP Regional Office (see Instructions): Send a copy of the Notice of Intent or Abbreviated Notice of Intent; a **copy** of this form; and a **copy** of the state fee payment. (E-filers of Notices of Intent may submit these electronically.)



ONE HARBORSIDE DRIVE
EAST BOSTON, MA 02128-2909

0000194533

62-22/311

Date 08 Jun.2020

Amount \$1,100.00***

PAY

ONE THOUSAND ONE HUNDRED AND XX / 100 DOLLARS

*Void After 90 Days From Check Date

Wells Fargo Bank

TOWN OF LEICESTER

TO
THE
ORDER
OF3 WASHBURN SQUARE
LEICESTER, MA 01324

⑈0000194533⑈ ⑆031100225⑆ 2079950085337⑈

AFFIDAVIT OF SERVICE

Under the Massachusetts Wetlands Protection Act
(To be submitted to the Massachusetts Department of
Environmental Protection and the Conservation Commission
when filing a Notice of Intent)

I, Gregg Cohen, (for Stantec Consulting Services Inc.), hereby certify under the pains and penalties of perjury that on **June 24, 2020** I gave notification to abutters in compliance with the second paragraph of Massachusetts General Laws Chapter 131, Section 40, and the DEP Guide to Abutter Notification dated April 8, 1994, in connection with the following matter:

A Notice of Intent was filed under the Massachusetts Wetlands Protection Act by the Massachusetts Port Authority with the Leicester Conservation Commission on June 15, 2020 for management of vegetative obstructions to navigable airspace at Worcester Regional Airport pursuant to an update of the airport Vegetation Management Plan.

The form of the notification, and a list of the abutters to whom it was given and their addresses, are attached to this Affidavit of Service.



Gregg Cohen for Stantec Consulting Services Inc.

6/24/2020

Date



Parcel ID	Location	Owner	Co-Owner	Mailing Address	City	State	Zip
12 A3 0	WASHBURN ST	CITY OF WORCESTER WATER	DEPT OF PUBLIC WORKS	20 EAST WORCESTER STRE	WORCESTER	MA	01604
12 C1 0	EARLE ST	CITY OF WORCESTER WATER	DEPT OF PUBLIC WORKS	20 EAST WORCESTER STRE	WORCESTER	MA	01604
12 D1 0	PAXTON ST	CITY OF WORCESTER WATER	DEPT OF PUBLIC WORKS	20 EAST WORCESTER STRE	WORCESTER	MA	01604
12 D2 0	249 PAXTON ST	BANKS AENG		36 CROWNINGSHIELD DR	PAXTON	MA	01612
13 A6 0	MANVILLE ST	CITY OF WORCESTER WATER	DEPT OF PUBLIC WORKS	20 EAST WORCESTER STRE	WORCESTER	MA	01604
13 B1 0	EARLE ST	TOWN OF LEICESTER	TOWN HALL	3 WASHBURN SQUARE	LEICESTER	MA	01524
14 A1 0	132 MARSHALL ST	SOUTHWICK THOMAS E JR		132 MARSHALL ST	LEICESTER	MA	01524
14 A2 0	ELM ST	CITY OF WORCESTER WATER	DEPT OF PUBLIC WORKS	20 EAST WORCESTER STRE	WORCESTER	MA	01604
15 A6 7 0	MULBERRY ST	MASSPORT		ONE HARBORSIDE DR STE 2	EAST BOSTON	MA	02128-2909
15 A2 0	PAXTON ST	CITY OF WORCESTER WATER	DEPT OF PUBLIC WORKS	20 EAST WORCESTER STRE	WORCESTER	MA	01604
15 A3 0	PAXTON ST	MASSPORT		ONE HARBORSIDE DR STE 2	EAST BOSTON	MA	02128-2909
15 A4 0	PAXTON ST	CITY OF WORCESTER WATER	DEPT OF PUBLIC WORKS	20 EAST WORCESTER STRE	WORCESTER	MA	01604
15 B2 0	PAXTON ST	MASSPORT		ONE HARBORSIDE DR STE 2	EAST BOSTON	MA	02128-2909
15 B3 0	PAXTON ST	MASSPORT		ONE HARBORSIDE DR STE 2	EAST BOSTON	MA	02128-2909
15 B4 0	MANVILLE ST	CITY OF WORCESTER WATER	DEPT OF PUBLIC WORKS	20 EAST WORCESTER STRE	WORCESTER	MA	01604
15 C1 0	MANVILLE ST	CITY OF WORCESTER WATER	DEPT OF PUBLIC WORKS	20 EAST WORCESTER STRE	WORCESTER	MA	01604
15 C2 0	MARSHALL ST	BERMAN RUTH E		137 MARSHALL STREET	LEICESTER	MA	01524
15 C2 1 0	137 MARSHALL ST	BERMAN RUTH E		137 MARSHALL STREET	LEICESTER	MA	01524
15 C5 1 0	397 MULBERRY ST	MACHADO PAUL J	MACHADO ERICA E	397 MULBERRY ST	LEICESTER	MA	01524
15 C5 3 0	403 MULBERRY ST	SAVAGE THOMAS J JR	SAVAGE GABRIELLE J	13 SUOMI ST	PAXTON	MA	01612
15 C5 4 0	405 MULBERRY ST	GENTILE PETER J	GENTILE PATRICIA A	505 MILL ST	WORCESTER	MA	01602
15 C5 5 0	MULBERRY ST	DURKAN JOHN		399 MULBERRY STREET	LEICESTER	MA	01524
15 C6 0	MULBERRY ST	MASSPORT		ONE HARBORSIDE DR STE 2	EAST BOSTON	MA	02128-2909
15 C7 0	MULBERRY ST	MASSPORT		ONE HARBORSIDE DR STE 2	EAST BOSTON	MA	02128-2909

Above is a certified list of abutters and abutters to abutters within 300 feet of subjects.

Subject property: Paxton Street, Assessors Map 12-B1-0, Deed Ref. 45993/1

Subject owner: Massport

Subject property: Paxton Street, Assessors Map 12-B2-0, Deed Ref. N/A

Subject owner: City of Worcester Water

Subject property: Paxton Street, Assessors Map 6-B1-0, Deed Ref. N/A

Subject owner: City of Worcester Water

Subject property: Mannville Street, Assessors Map 6-B4-0, Deed Ref. N/A

Subject owner: City of Worcester Water

Subject property: Mannville Street, Assessors Map 6-C1-0, Deed Ref. N/A

Subject owner: City of Worcester Water

John Prescott, Principal Assessor

Prepared by: Kathleen Asquith, Assistant

**Notification to Abutters Under the
Massachusetts Wetlands Protection Act**

In accordance with the second paragraph of the Massachusetts General Laws Chapter 131, Section 40, you are hereby notified (via certified mail) of the following.

- A. The name of the applicant is: **Massachusetts Port Authority - The project consists of the implementation of a facility-wide vegetation management plan (VMP) at Worcester Regional Airport to address vegetative obstructions to protected airspace surfaces at the four runway ends. The VMP has been prepared according to the Generic Environmental Impact Report for Airport Tree Clearing (EOEA No. 8978) and other applicable regulations.**
- B. The applicant has filed a Notice of Intent with the Conservation Commission for the municipality of: **Leicester, Massachusetts** seeking an Order of Conditions under the Wetlands Protection Act (General Laws Chapter 131, Section 40).
- C. The address of the lot where the activity is proposed is: **375 Airport Drive, Worcester, Worcester Regional Airport, Runway End 11, (Assessor's Map 6 Parcels B-1, B-4, C-1, Map 12 Parcels B-1, B-2).**
- D. The Notice of Intent may be examined at: **Leicester Conservation Commission
Town Hall, 3 Washburn Square
Leicester, MA 01524**
- E. Copies of the Notice of Intent may be obtained from: **Stantec Consulting Services Inc.
Attn: Gregg Cohen
(207) 887-3824
gregg.cohen@stantec.com**
- F. Information regarding the date, time, and place of the public hearing may be obtained from: **Leicester Conservation Commission Ph: (508) 892-7007** or **Stantec Consulting Services Inc.
Attn: Gregg Cohen
207-887-3824**
- G. Notice of the public hearing, including its date, time, and place, will be published at least five (5) days in advance in the following newspaper: **Telegram & Gazette**

Note: Notice of the public hearing, including its date, time, and place, will be posted in the Town Hall not less than forty-eight (48) hours in advance.

Note: You also may contact your local Conservation Commission or the nearest Department of Environmental Protection (DEP) Regional Office for more information about this application or the Wetlands Protection Act. To contact DEP, call:

Central Regional Office: 508-792-7650
Southeast Regional Office: 508-946-2800

Northeast Regional Office: 978-694-3200
Western Regional Office: 413-784-1100

**NOTICE OF INTENT
TOWN OF LEICESTER
2020 VEGETATION MANAGEMENT PLAN UPDATE
WORCESTER REGIONAL AIRPORT**

WETLAND REPORT
June 2020

2.0 WETLAND REPORT

Stantec Consulting Services Inc. (Stantec) conducted field investigations in areas of the Worcester Regional Airport in Leicester, Massachusetts on April 24-25, 2019 to delineate wetlands and waterways within the Study Area that are subject to protection under the Massachusetts Wetlands Protection Act (WPA) and Sections 401 and 404 of the Federal Clean Water Act. The Study Area consisted of six vegetation management areas (VMAs) comprised of approximately 16 acres of land located between Mulberry Street and Paxton Street, west of the Worcester Regional Airport Runway 11-29.

Wetland and waterway boundaries within the Study Area were delineated in the field using sequentially numbered pink flagging. Flag locations were field-located using a global positioning system (GPS) unit capable of sub-meter accuracy.

Wetlands and watercourses were delineated using state and federal methodologies including Massachusetts Department of Environmental Protection (MassDEP) guidelines at 310 CMR 10.55(2)(c)(1), and the Army Corps of Engineers 1987 Wetlands Delineation Manual and Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region (Version 2.0; 2012).

A total of 10 data sampling points were taken within wetlands and uplands to document site conditions present during the field investigation, and were recorded on Mass DEP Bordering Vegetated Wetland Delineation Field Data Forms included in Appendix A.

2.1 FINDINGS

Resource areas identified within the Study Area during this investigation include, Bordering Vegetated Wetlands (BVW), Riverfront Area, and 100-Foot Buffer Zone. The Study Area limits, proposed wetland and waterway boundaries, Riverfront Area, and 100-Foot Buffer Areas are depicted on the Wetland Plan (Figure 2).

2.1.1 VMA 2-5A

VMA 2-5 is located along the eastern edge of Paxton Street, approximately 1,000 feet south of the intersection with Manville Street. This VMA consists primarily of deciduous saplings that have grown to approximately 25 feet tall. The VMA is approximately two acres in area. Resource Areas associated with this VMA include BVW and 100-Foot Buffer Zone. Wetlands and buffer zone occur in the western region of the vegetation management area. This area has been previously cleared.

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TOWN OF LEICESTER
2020 VEGETATION MANAGEMENT PLAN UPDATE
WORCESTER REGIONAL AIRPORT**

WETLAND REPORT
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This VMA is comprised mostly of deciduous saplings including red oak (*Quercus rubra*) (FACU), bigtooth aspen (*Populus grandidentata*, FACU), gray birch (*Betula populifolia*, FAC), and to a lesser extent speckled alder (*Alnus incana*, FACW) and black cherry (*Prunus serotina*, FACU). Wetland vegetation within this VMA is characterized by gray birch saplings and speckled alder. The sparsely populated understory includes steeplebush (*Spiraea tomentosa*, FACW), and sensitive fern (*Onoclea sensibilis*, FACW). Wetland hydrology is influenced by topography—the wetland is a fairly level area located near the lower region of a hill that drains to the north and the east. Channelized drainage along Paxton Street and a culvert draining the hill to the west of Paxton Street also influence wetland hydrology.

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2020 VEGETATION MANAGEMENT PLAN UPDATE
WORCESTER REGIONAL AIRPORT**

WETLAND REPORT
June 2020



Photo 1 VMA 2-5

2.1.2 VMA 2-7A

VMA 2-7A is located between Paxton Street and Manville Street. This VMA has been previously cut and consists primarily of deciduous saplings; understory vegetation is sparse. Bordering vegetated wetlands and buffer occur within a narrow north-south depression in the hillside. Dominant wetland vegetation includes gray birch (*Betula populifolia*, FAC), red maple (*Acer rubrum*) (FAC), and black willow (*Salix nigra*, OBL) saplings. Sphagnum moss and cinnamon fern (*Osmunda cinnamomea*, FACW) comprise groundcover. These wetlands are located within a

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WETLAND REPORT
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narrow drainage depression in the eastern face of the hillside with drainage occurring in a north to south direction.

The vegetation community is dominated by sapling, shrub, and herbaceous species, bordered by meadow to the west. The wetland hydrology was confirmed by the presence of two secondary indicators including the wetlands geomorphic location (depression and toe of slope); and a restrictive layer (ledge/rock within 20 inches of the surface. The hydric soil parameter was confirmed by the presence of a dark soils in the upper soil horizon underlain by a depleted, or “washed” soil horizon suggesting a seasonally high water table. The presence of stone & ledge at 12-14” provides a restrictive layer limiting drainage. Ground water was observed at 3-4.” This area appears to have been previously cleared.

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2020 VEGETATION MANAGEMENT PLAN UPDATE
WORCESTER REGIONAL AIRPORT**

WETLAND REPORT
June 2020



Photo 2 VMA 2-7A Wetland

2.1.3 VMA 2-9A

Wetlands within VMA 2-9A include primarily early succession deciduous sapling/scrub-shrub (PSS) wetlands located approximately 1,000 feet east of Paxton Street. Meadow and wet meadow habitat abut these wetlands. Wetlands drain from north to south over gradual slope. These wetlands occur fairly high in the watershed on the gently eastward sloping hillside. Hydrology is influenced by topography draining to/through this area. Resource Areas associated with VMA 2-

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2020 VEGETATION MANAGEMENT PLAN UPDATE
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WETLAND REPORT
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9A include a 100-Foot Buffer Zone initiating landward from the wetland boundary and bordering vegetated wetland.

Dominant species include Black willow (*Salix nigra*, OBL), Gray birch (*Betula populifolia*, FAC), Steeplebush (*Spiraea tomentosa*, FACW), and Highbush blueberry (*Vaccinium corymbosum*, FACW) and Sphagnum moss. The hydrophytic vegetation parameter was confirmed by dominance of the plant species present having an indicator status of FAC, FACW, or OBL.

The wetland hydrology is influenced by the wetland's geomorphic location (lateral depression across a downward slope). The hydric soil parameter was confirmed by the presence of a mucky A horizon underlain by a depleted matrix. Ground water was present within two inches of the soil's surface. Trees within this VMA have been previously cut.

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2020 VEGETATION MANAGEMENT PLAN UPDATE
WORCESTER REGIONAL AIRPORT**

WETLAND REPORT
June 2020



Photo 3 VMA 2-9A Wetland

2.1.4 VMA 11A

Wetlands located in VMA 11-A consist of wet meadow/emergent and sapling scrub-shrub habitat. The wetlands are located approximately 650 feet east of Paxton Street. Wetlands within the project area are comprised primarily of dense Gray birch sapling growth with sparse groundcover. Other wetland species include willow (spp.), speckled alder, meadowsweet



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TOWN OF LEICESTER
2020 VEGETATION MANAGEMENT PLAN UPDATE
WORCESTER REGIONAL AIRPORT**

WETLAND REPORT
June 2020

(*Spiraea lattiifolia*, FACW) common rush (*Juncus effuses*, OBL), lurid sedge (*Carerx lurida*, OBL) Drainage is generally from the north, across the eastern facing slope of the hill and ponds in some depressions and flat areas. Topography is relative flat to gently sloping but is more pronounced within drainage corridors. These wetlands are positioned relatively high in the watershed but, similar to VMA 2-9A, are located within a north-south micro valley in the hillside.



Photo 4 VMA 11A Wetland

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TOWN OF LEICESTER
2020 VEGETATION MANAGEMENT PLAN UPDATE
WORCESTER REGIONAL AIRPORT**

WETLAND REPORT
June 2020

Dominant species include gray birch, eastern cottonwood (*Populus deltoides*, FAC), speckled alder (*Alnus rugosa*, FACW+), and meadowsweet (*Spiraea latifolia*, FAC+). The hydrophytic vegetation parameter was confirmed by 100% of the plant species present having an indicator status of FAC, FACW, or OBL.

The wetland hydrology parameter was confirmed by the presence of two secondary indicators of hydrology; the wetlands geomorphic location (depression, slope); and use of the FAC-neutral test on vegetation. The hydric soil parameter was confirmed by the presence of a dark A horizon with a 10 YR 2/2 (0-5") underlain by loamy sand horizon with a 10 YR 4/2 with evidence of redox (10 YR 5/6) within the top 10 inches. Soil was saturated to the surface and water table was encountered at six inches.

2.1.5 VMA 2-11A

VMA 2-11A is located on the east side of Kettle Brook, to the north of the Runway 11 outer approach lights. The area is characterized by red oak (*Quercus rubra*, FACU) and mountain laurel (*Kalmia latifolia*, FACU) dominant forested uplands. The northeast region of the VMA includes a narrow seep/slope wetland consisting primarily of forested/sapling habitat comprised of red maple (*Acer rubrum*, FAC), green ash (*Fraxinus pennsylvanica*, FACW), and gray birch (*Betula populifolia*, FAC). There is little understory or herbaceous ground cover in this wetland. Sphagnum is common. The western region of the VMA also includes a small area of mature trees to be removed from Kettle Brook Riverfront Area (outer 100 feet).

Ledge and stone may create or contribute to a seasonally perched water table as evidenced by shallow auger refusal as well as the shallow roots and buttressed trunks in this area. Shallow - to-bedrock and stony conditions, combined with the sloped topography and a stepped depression support the wetland hydrology in this location. Soils are generally characterized by a moderately deep dark A horizon (10 yr 2/1) underlain by a gleyed matrix.

**NOTICE OF INTENT
TOWN OF LEICESTER
2020 VEGETATION MANAGEMENT PLAN UPDATE
WORCESTER REGIONAL AIRPORT**

WETLAND REPORT
June 2020

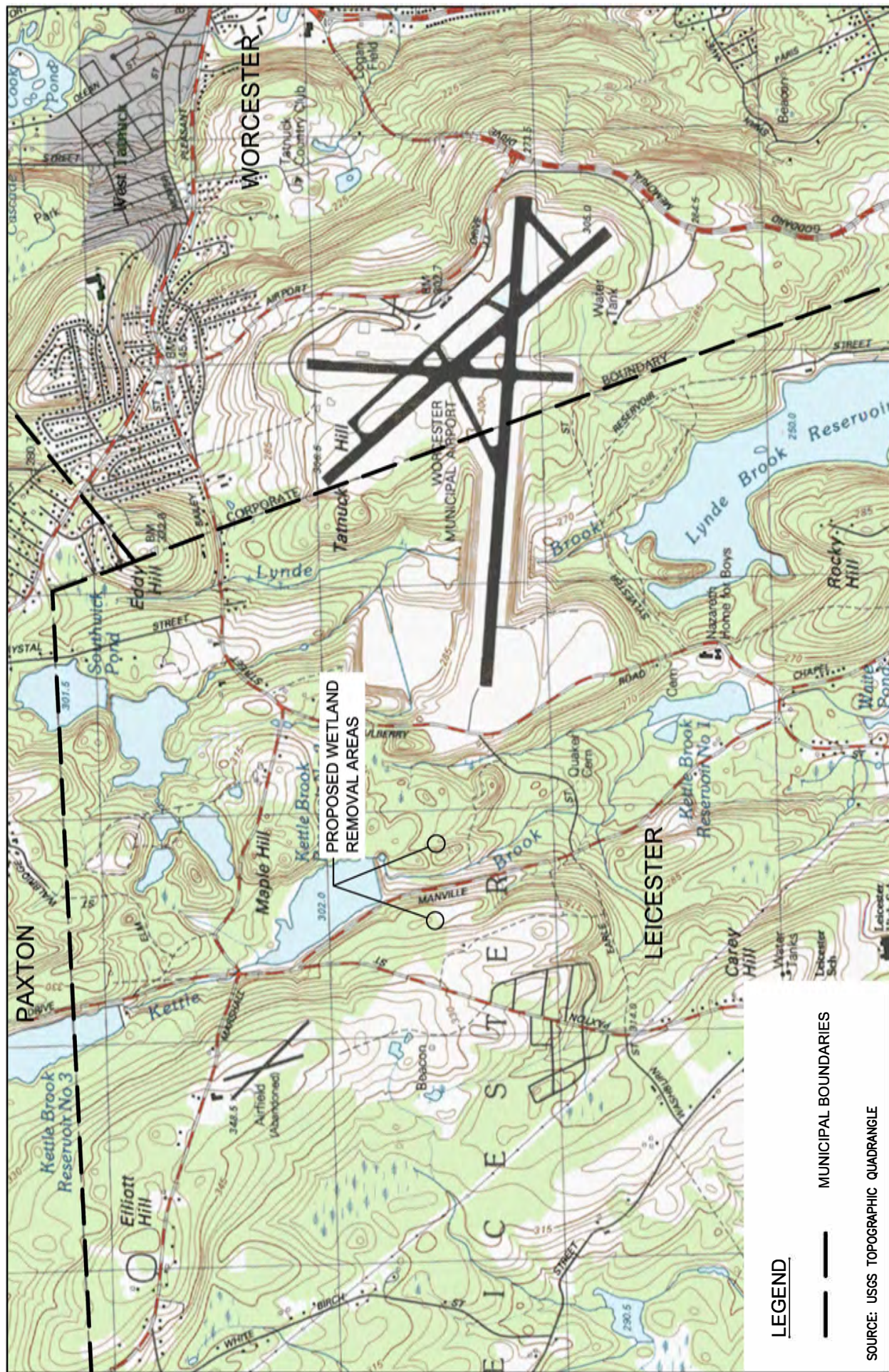


Photo VMA 2-11A Wetland

**NOTICE OF INTENT
TOWN OF LEICESTER
2020 VEGETATION MANAGEMENT PLAN UPDATE
WORCESTER REGIONAL AIRPORT**

PLAN SET
June 2020

3.0 PLAN SET



Stantec Consulting Services Inc.
482 Payne Road Scarborough Court
Scarborough ME 04074-8929
Tel: (207) 883-3355
www.stantec.com

Notes



Client/Project

Worcester Regional Airport

2020 VEGETATION MANAGEMENT PLAN UPDATE

Project No.
195211197

Title

PROJECT LOCATION MAP

Revision

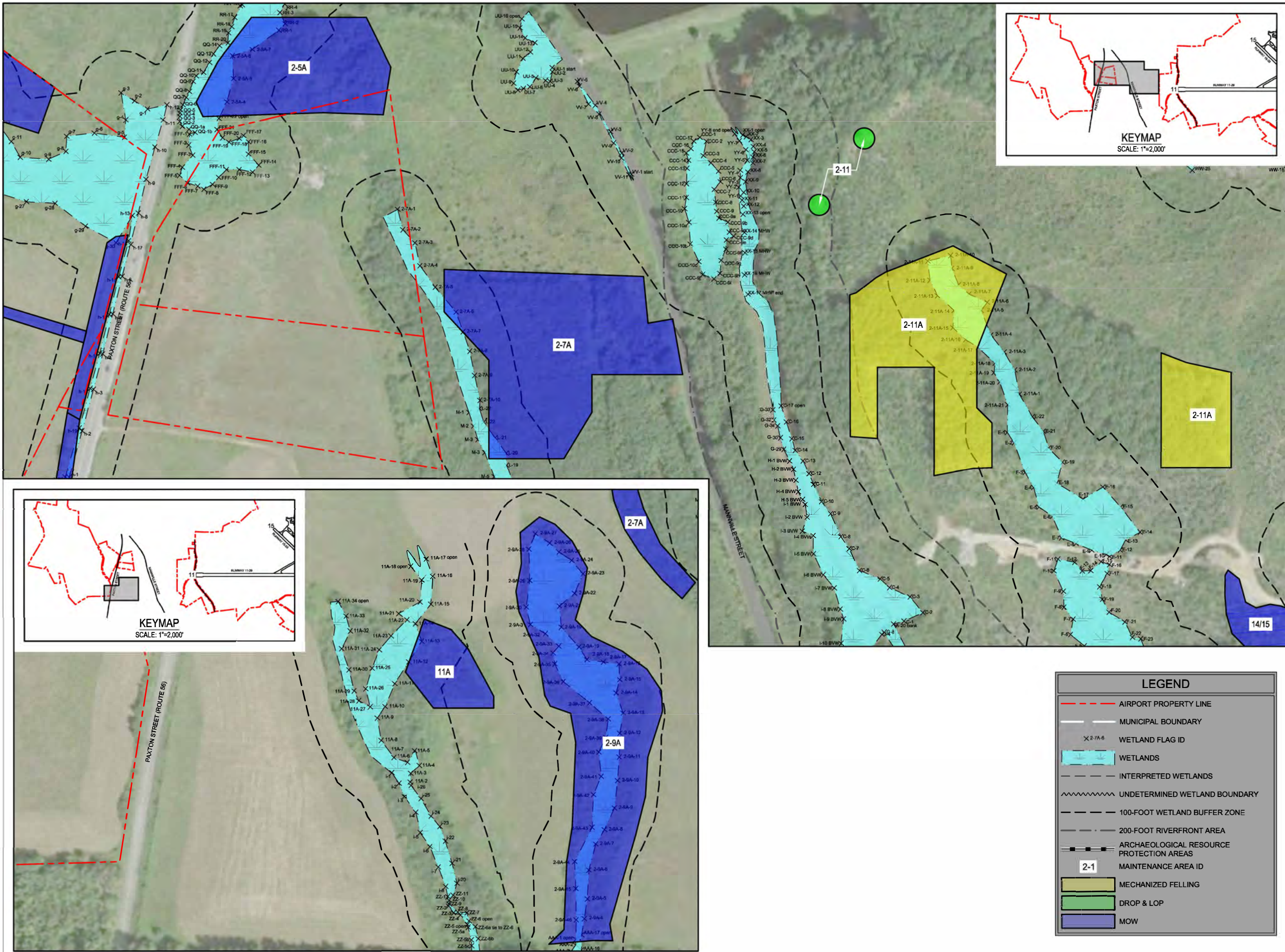
Date _____

2020.04.07

Reference Sheet

Figure No.

1



MASSACHUSETTS PORT AUTHORITY
EAST BOSTON, MASSACHUSETTS 02128

PROJECT LOCATION:
WORCESTER REGIONAL AIRPORT
WORCESTER, MA

MPA CONTRACT NO.:
AP1824-C1

LOCATION CODE:
7640

PROJECT SUBMISSION PHASE:
VEGETATION MANAGEMENT

REGISTRATION STAMP:



0 100' 200'

REVISIONS:		
REV NO.	DATE	DESCRIPTION

PRIMARY:
Stantec
482 PAYNE ROAD
SCARBOROUGH, ME 04074
207-883-3355
www.stantec.com



PROJECT NUMBER AND TITLE:

AP1824-C1
2020 VEGETATION
MANAGEMENT PLAN UPDATE

SHEET TITLE:

WETLANDS PLAN FOR
2020 VMP UPDATE REMOVAL AREAS

DISCIPLINE:
CIVIL

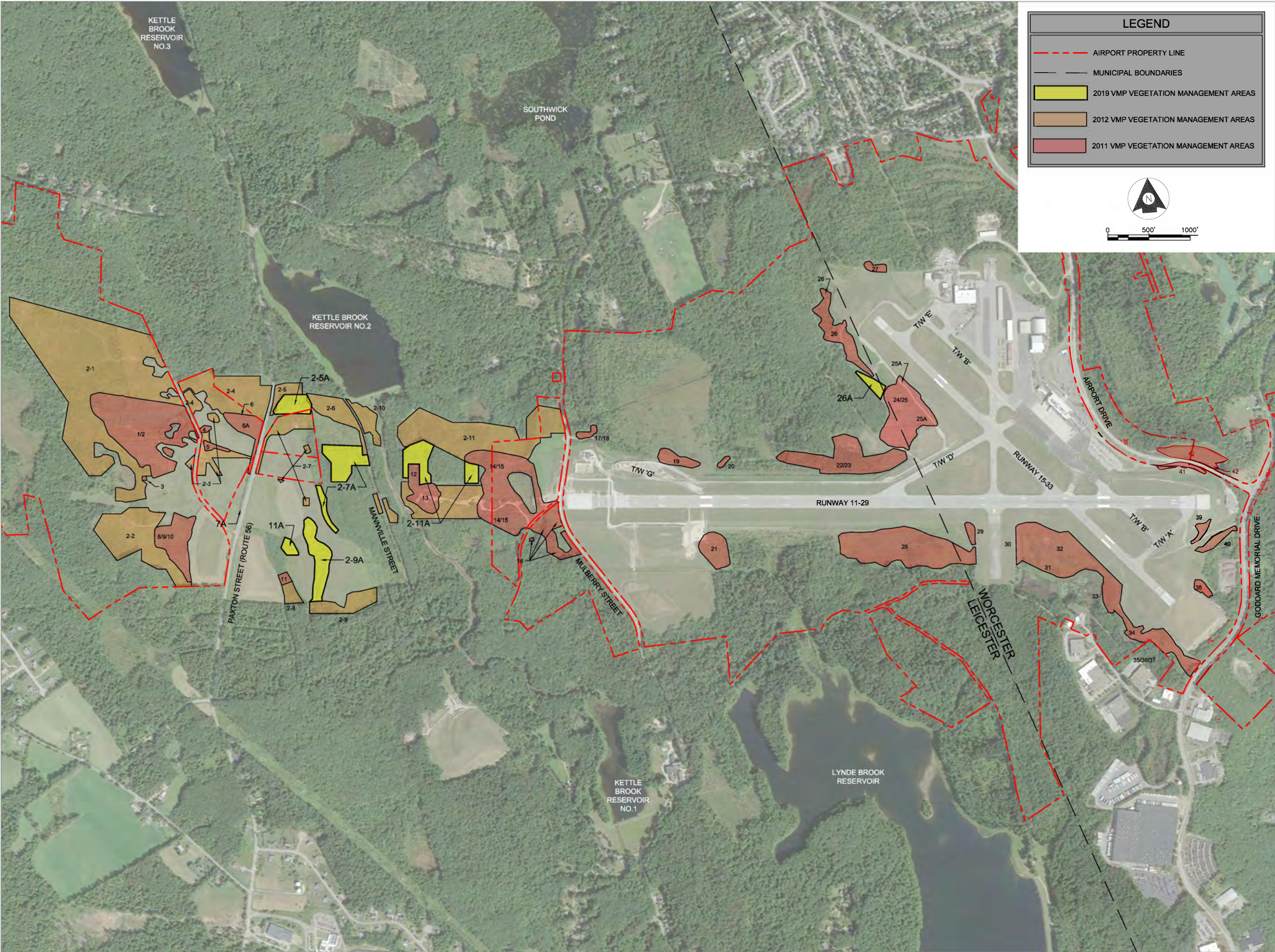
DRAWN BY: LRK
CHECKED BY: GAC
APPROVED BY: JPH

SCALE:
1" = 100'

DATE:
APRIL 2020

FIGURE NUMBER:

2





MASSACHUSETTS PORT AUTHORITY
EAST BOSTON, MASSACHUSETTS 02128

PROJECT LOCATION:
**WORCESTER REGIONAL AIRPORT
WORCESTER, MA**

MPA CONTRACT NO.:
AP1824-C1

LOCATION CODE:
7640

PROJECT SUBMISSION PHASE:
VEGETATION MANAGEMENT

REGISTRATION STAMP:

REVISIONS:

REV NO.	DATE	DESCRIPTION	BY

PRIMARY:



Stantec
482 PAYNE ROAD
SCARBOROUGH, ME 04074
207-883-3355
www.stantec.com

CONSULTANT:



PROJECT NUMBER AND TITLE:
**AP1824-C1
2020 VEGETATION
MANAGEMENT PLAN UPDATE**

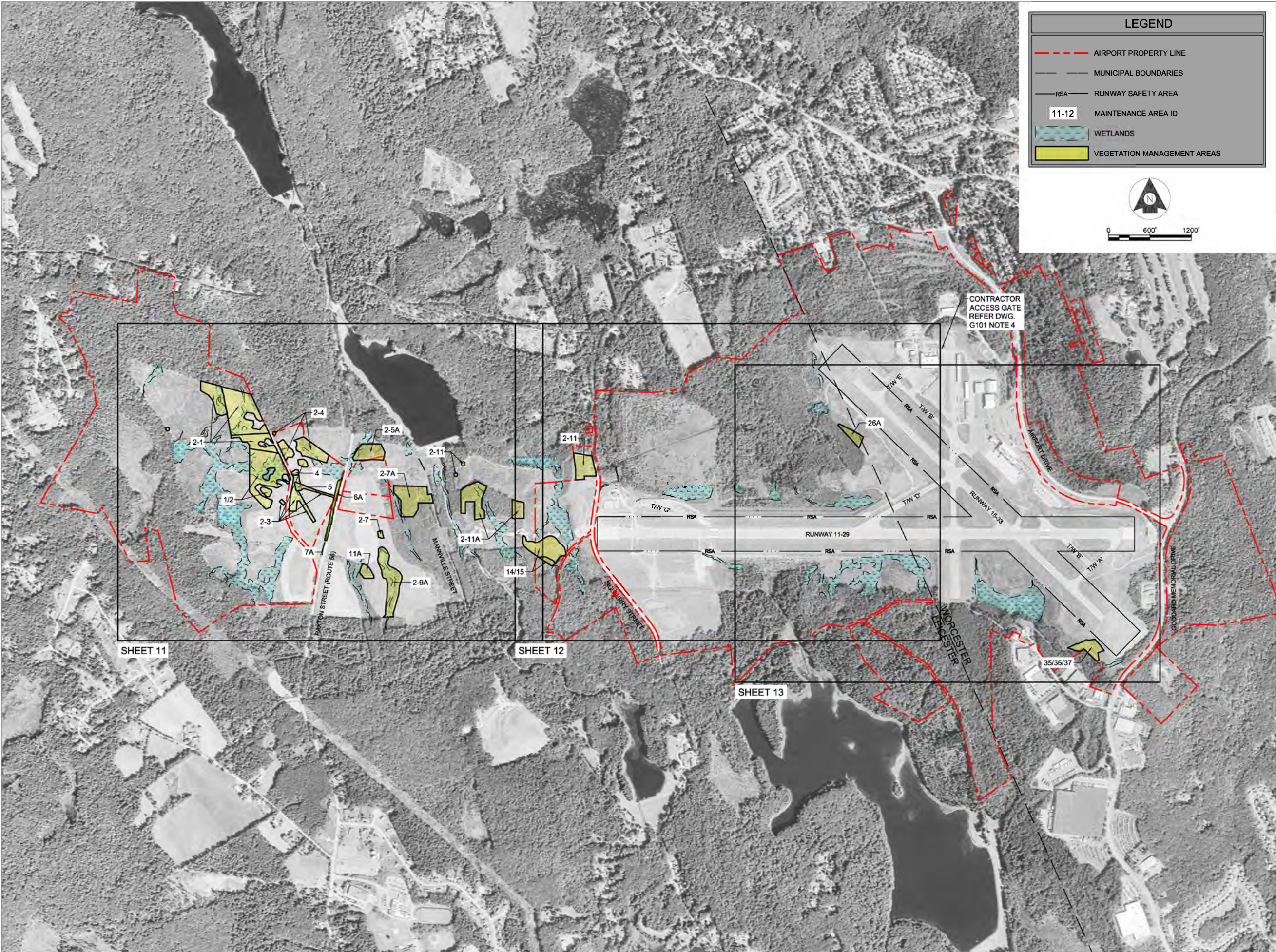
SHEET TITLE:
**VEGETATION MANAGEMENT
AREAS**

DISCIPLINE:
CIVIL

DRAWN BY:	CHECKED BY:	APPROVED BY:
LRK	JPH	GAC

SCALE:	DATE:
AS SHOWN	APRIL 2020

FIGURE NUMBER:
3



LEGEND

AIRPORT PROPERTY LINE

MUNICIPAL BOUNDARIES

RSA

RUNWAY SAFETY AREA

11-12

MAINTENANCE AREA ID

WETLANDS

VEGETATION MANAGEMENT AREAS

N

0

600'

1200'

massport

MASSACHUSETTS PORT AUTHORITY
EAST BOSTON, MASSACHUSETTS 02128

PROJECT LOCATION:
WORCESTER REGIONAL AIRPORT
WORCESTER, MA

MPA CONTRACT NO.:
AP1824-C1

LOCATION CODE:
7640

PROJECT SUBMISSION PHASE:
VEGETATION MANAGEMENT

REGISTRATION STAMP:

JOHN P. HUNTER
CIVIL
No. 11941
Professional Seal

3/11/19

REVISIONS:

REV NO.	DATE	DESCRIPTION	BY

PRIMARY:

Stantec

482 PAYNE ROAD
SCARBOROUGH, ME 04074
207-883-3355
www.stantec.com

CONSULTANT:

PROJECT NUMBER AND TITLE:
AP1824-C1
FY19-FY22 TERM
VEGETATION MANAGEMENT

SHEET TITLE:
ORH GENERAL SITE PLAN

DISCIPLINE:
CIVIL

DRAWN BY:
LRK

CHECKED BY:
GAC

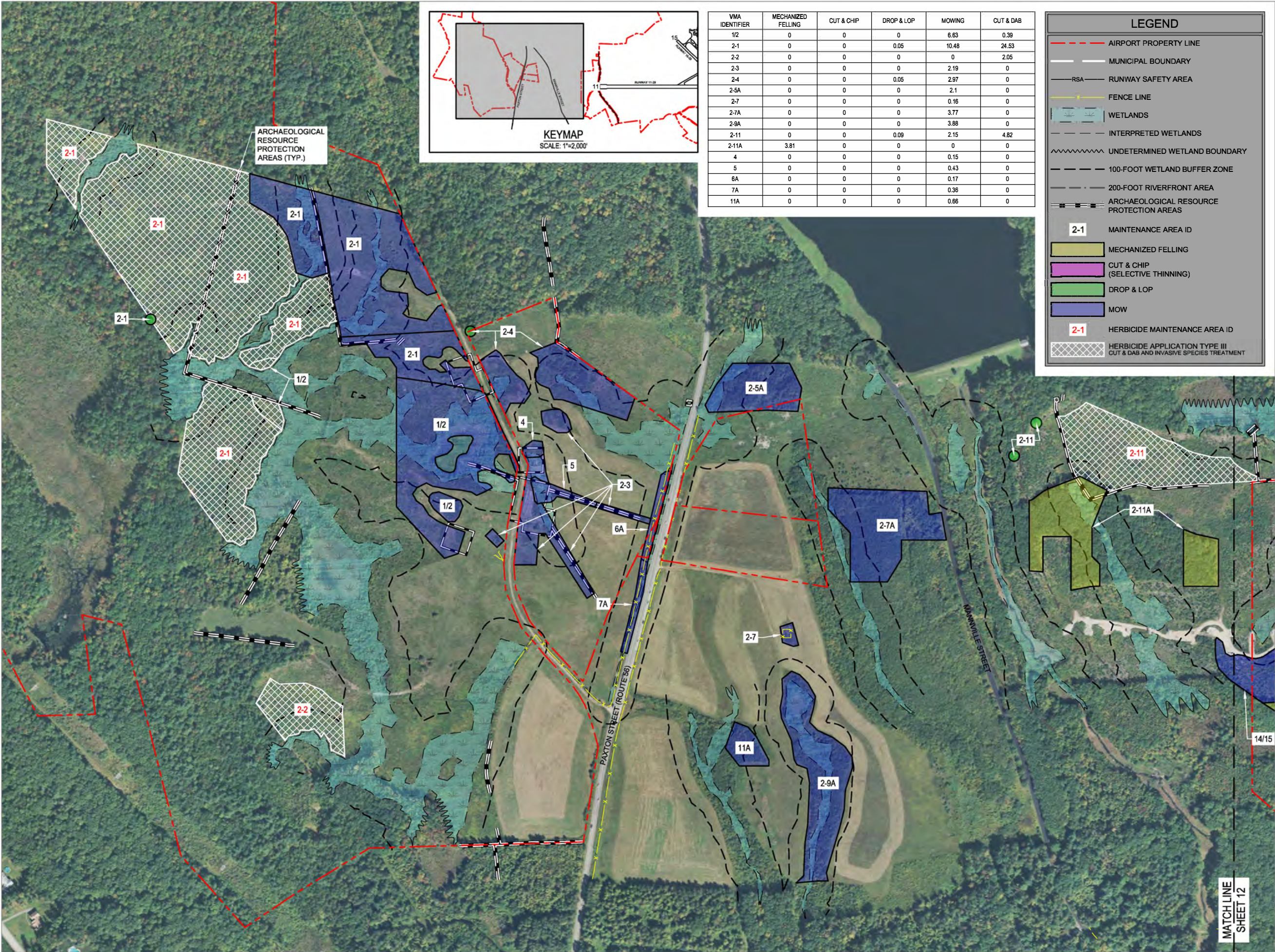
APPROVED BY:
JPH

SCALE:
1" = 600'

DATE:
MARCH 2019

SHEET NUMBER:
10 OF 13

DWG NUMBER:
C200



VMA IDENTIFIER	MECHANIZED FELLING	CUT & CHIP	DROP & LOP	MOWING	CUT & DAB
1/2	0	0	0	6.63	0.39
2-1	0	0	0.05	10.48	24.53
2-2	0	0	0	0	2.05
2-3	0	0	0	2.19	0
2-4	0	0	0.05	2.97	0
2-5A	0	0	0	2.1	0
2-7	0	0	0	0.16	0
2-7A	0	0	0	3.77	0
2-9A	0	0	0	3.88	0
2-11	0	0	0.09	2.15	4.82
2-11A	3.81	0	0	0	0
4	0	0	0	0.15	0
5	0	0	0	0.43	0
6A	0	0	0	0.17	0
7A	0	0	0	0.36	0
11A	0	0	0	0.66	0

LEGEND

AIRPORT PROPERTY LINE

MUNICIPAL BOUNDARY

RSA

RUNWAY SAFETY AREA

FENCE LINE

WETLANDS

INTERPRETED WETLANDS

UNDETERMINED WETLAND BOUNDARY

100-FOOT WETLAND BUFFER ZONE

200-FOOT RIVERFRONT AREA

ARCHAEOLOGICAL RESOURCE PROTECTION AREAS

2-1

MAINTENANCE AREA ID

MECHANIZED FELLING

CUT & CHIP
(SELECTIVE THINNING)

DROP & LOP

MOW

2-1

HERBICIDE MAINTENANCE AREA ID

HERBICIDE APPLICATION TYPE III
CUT & DAB AND INVASIVE SPECIES TREATMENT

MASSPORT

MASSACHUSETTS PORT AUTHORITY
EAST BOSTON, MASSACHUSETTS 02128

PROJECT LOCATION:

WORCESTER REGIONAL AIRPORT
WORCESTER, MA

MPA CONTRACT NO.:

AP1824-C1

LOCATION CODE:

7640

PROJECT SUBMISSION PHASE:

VEGETATION MANAGEMENT

REGISTRATION STAMP

JOHN P. HENRY
CIVIL
No. 45845
3/11/19

0 200' 400'

REVISIONS:

REV NO.	DATE	DESCRIPTION	BY

PRIMARY:

Stantec

482 PAYNE ROAD
SCARBOROUGH, ME 04074
207-883-3355
www.stantec.com

CONSULTANT:

PROJECT NUMBER AND TITLE:

AP1824-C1
FY19-FY22 TERM
VEGETATION MANAGEMENT

SHEET TITLE:

ORH VEGETATION
MANAGEMENT AREAS
RUNWAY 11 - SHEET 1 OF 2

DISCIPLINE:

CIVIL

DRAWN BY:

CHECKED BY:

APPROVED BY:

LRK

GAC

JPH

SCALE:

1" = 200'

DATE:

MARCH 2019

SHEET NUMBER:

DWG NUMBER:

11 OF 13

C201

VMA IDENTIFIER	MECHANIZED FELLING	CUT & CHIP	DROP & LOP	MOWING	CUT & DAB
26A	0.96	0	0	0	0
35/36/37	0.96	0	0	1.66	0

LEGEND

AIRPORT PROPERTY LINE

MUNICIPAL BOUNDARY

RSA

RUNWAY SAFETY AREA

FENCE LINE

WETLANDS

INTERPRETED WETLANDS

UNDETERMINED WETLAND BOUNDARY

100-FOOT WETLAND BUFFER ZONE

200-FOOT RIVERFRONT AREA

ARCHAEOLOGICAL RESOURCE PROTECTION AREAS

2-1

MAINTENANCE AREA ID

MECHANIZED FELLING

CUT & CHIP (SELECTIVE THINNING)

DROP & LOP

MOW

2-1

HERBICIDE MAINTENANCE AREA ID

HERBICIDE APPLICATION TYPE III
CUT & DAB AND INVASIVE SPECIES TREATMENT

massport

MASSACHUSETTS PORT AUTHORITY
EAST BOSTON, MASSACHUSETTS 02128

PROJECT LOCATION:
WORCESTER REGIONAL AIRPORT
WORCESTER, MA

MPA CONTRACT NO.:
AP1824-C1

LOCATION CODE:
7640

PROJECT SUBMISSION PHASE:
VEGETATION MANAGEMENT

REGISTRATION STAMP:

JOHN P. HEARBY
CIVIL
No. 44848
3/11/19

0 200' 400'

REVISIONS:

REV NO.	DATE	DESCRIPTION	BY

PRIMARY:

Stantec
482 PAYNE ROAD
SCARBOROUGH, ME 04074
207-883-3355
www.stantec.com

CONSULTANT:

PROJECT NUMBER AND TITLE:
AP1824-C1
FY19-FY22 TERM
VEGETATION MANAGEMENT

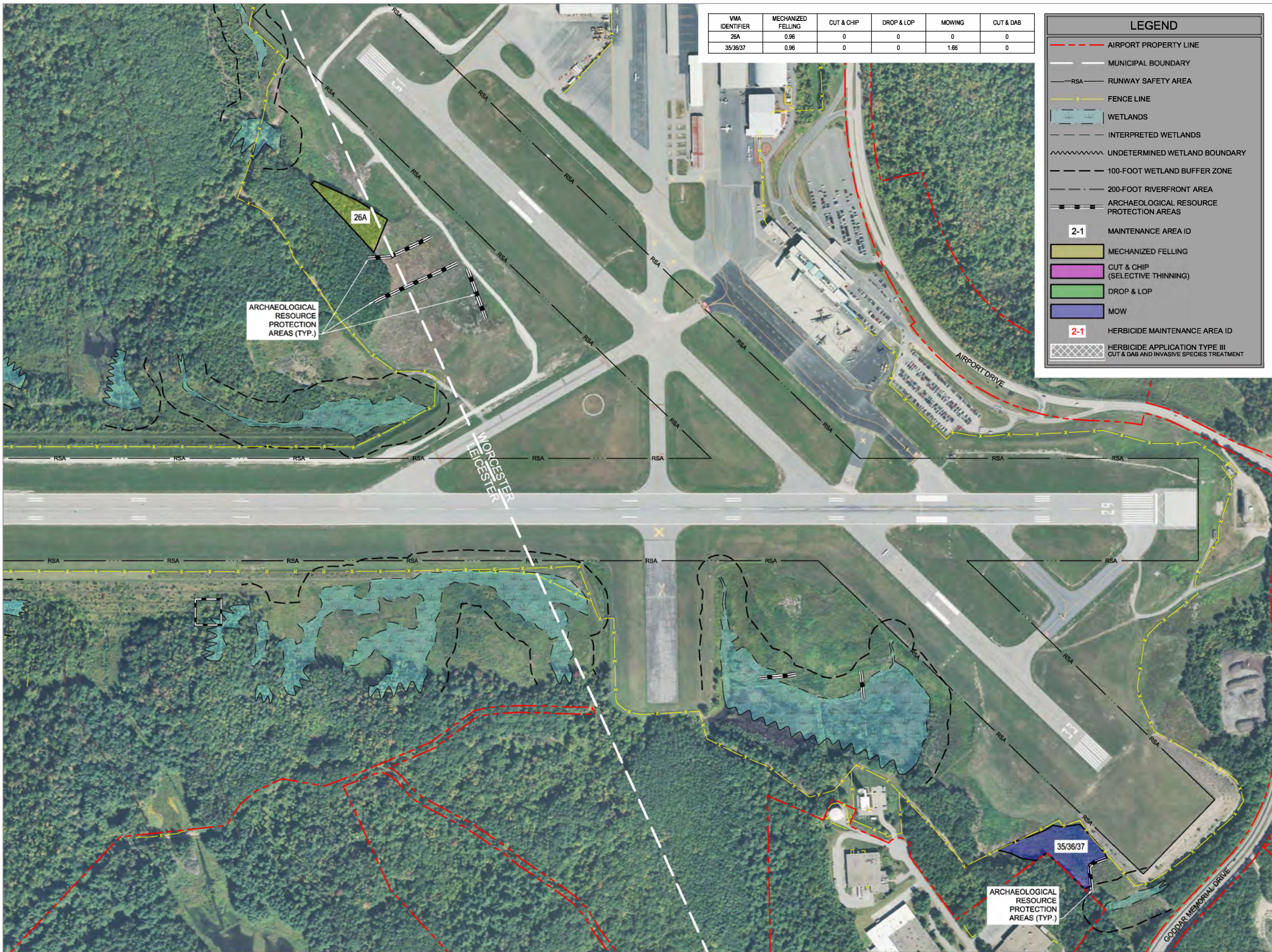
SHEET TITLE:
ORH VEGETATION
MANAGEMENT AREAS
RUNWAY 15-33 - SHEET 1 OF 1

DISCIPLINE:
CIVIL

DRAWN BY:	CHECKED BY:	APPROVED BY:
LRK	GAC	JPH

SCALE: 1" = 200'	DATE: MARCH 2019
---------------------	---------------------

SHEET NUMBER: 13 OF 13	DWG NUMBER: C203
---------------------------	----------------------------



APPENDIX A: WETLAND DATA SHEETS

MassDEP Bordering Vegetated Wetland (310 CMR 10.55) Delineation Field Data Form

Applicant: Massport Prepared by: G. Cohen, Stantec Project location: Worc. Airport Paxton Street DEP File #:

Check all that apply:

- ☐ Vegetation alone presumed adequate to delineate BVW boundary: fill out Section I only
- ☒ Vegetation and other indicators of hydrology used to delineate BVW boundary: fill out Sections I and II
- ☐ Method other than dominance test used (attach additional information)

Section I.

Vegetation	Observation Plot Number: TP-U		Transect Number: 2-5A #7	Date of Delineation: 4/24/19
A. Sample Layer & Plant Species (by common/scientific name)	B. Percent Cover (or basal Area)	C. Percent Dominance	D. Dominant Plant (yes or no)	E. Wetland Indicator Category*

TREES

SAPLINGS

Red oak				
Big tooth aspen	30	43	Yes	FACU-
White birch	20	29	Yes	FACU-
Gray birch	10	14	No	FACU
	10	14	No	FAC*

SHRUBS

Big tooth aspen	20	50	Yes	FACU-
Black cherry	10	25	Yes	FACU
Gray birch	10	25	Yes	FAC*

GROUND COVER

* Use an asterisk to mark wetland indicator plants: plant species listed in the Wetlands Protection Act (MGL c.131, s.40); plants in the genus *Sphagnum*; plants listed as FAC, FAC+, FACW-, FACW, FACW+, or OBL; or plants with physiological or morphological adaptations. If any plants are identified as wetland indicator plants due to physiological or morphological adaptations, describe the adaptation next to the asterisk.

Vegetation conclusion:

Number of dominant wetland indicator plants: 2

Number of dominant non-wetland indicator plants: 4

Is the number of dominant wetland plants equal to or greater than the number of dominant non-wetland plants? no

Section II. Indicators of Hydrology

Other Indicators of Hydrology: (check all that apply & describe)

- ☐ Site Inundated: _____
- ☐ Depth to free water in observation hole: _____
- ☐ Depth to soil saturation in observation hole: _____
- ☐ Water marks: _____
- ☐ Drift lines: _____
- ☐ Sediment Deposits: _____
- ☐ Drainage patterns in BVW: _____
- ☐ Oxidized rhizospheres: _____
- ☐ Water-stained leaves: _____
- ☐ Recorded Data (streams, lake, or tidal gauge; aerial photo; other): _____

- ☐ Other: _____

Hydric Soil Interpretation

1. Soil Survey

Is there a published soil survey for this site? yes no
title/date: _____
map number: _____
soil type mapped: _____
hydric soil inclusions: _____

Are field observations consistent with soil survey? yes no
Remarks: _____

2. Soil Description

Horizon	Depth	Matrix Color	Mottles Color
Litter	2-0		
A	0-6	10 YR 2/2	
B	6-10+	10 YR 4/6	

Remarks: _____

3. Other:

Conclusion: Is soil hydric? no

Vegetation and Hydrology Conclusion

Number of wetland indicator plants
≥ # of non-wetland indicator plants

Yes No
_____ ✓

Wetland hydrology present:

Hydric soil present

_____ ✓

Other indicators of hydrology present

_____ ✓

Sample location is in a BVW

_____ ✓

MassDEP Bordering Vegetated Wetland (310 CMR 10.55) Delineation Field Data Form

Applicant: Massport Prepared by: G. Cohen, Stantec Project location: Worc. Airport Paxton Street DEP File #:

Check all that apply:

- ☐ Vegetation alone presumed adequate to delineate BVW boundary: fill out Section I only
- ☒ Vegetation and other indicators of hydrology used to delineate BVW boundary: fill out Sections I and II
- ☐ Method other than dominance test used (attach additional information)

Section I.

Vegetation	Observation Plot Number: TP-W		Transect Number: 2-5A #7	Date of Delineation: 4/24/19
A. Sample Layer & Plant Species (by common/scientific name)	B. Percent Cover (or basal Area)	C. Percent Dominance	D. Dominant Plant (yes or no)	E. Wetland Indicator Category*

TREES

SAPLINGS

Gray birch			Yes	FAC*
Big tooth aspen	30	75	Yes	FACU-
	10	25		

SHRUBS

Speckled alder			Yes	FACW+*
Gray birch	30	60	Yes	FAC*
Meadowsweet	10	20	Yes	FAC+*
	10	20		

GROUND COVER

Sensitive fern	5	100	Yes	FACW*
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* Use an asterisk to mark wetland indicator plants: plant species listed in the Wetlands Protection Act (MGL c.131, s.40); plants in the genus *Sphagnum*; plants listed as FAC, FAC+, FACW-, FACW, FACW+, or OBL; or plants with physiological or morphological adaptations. If any plants are identified as wetland indicator plants due to physiological or morphological adaptations, describe the adaptation next to the asterisk.

Vegetation conclusion:

Number of dominant wetland indicator plants: 5

Number of dominant non-wetland indicator plants: 1

Is the number of dominant wetland plants equal to or greater than the number of dominant non-wetland plants? yes

If vegetation alone is presumed adequate to delineate the BVW boundary, submit this form with the Request for Determination of Applicability or Notice of Intent

Section II. Indicators of Hydrology

Hydric Soil Interpretation

1. Soil Survey

Is there a published soil survey for this site? yes no
title/date:
map number:
soil type mapped:
hydric soil inclusions:

Are field observations consistent with soil survey? yes no
Remarks:

2. Soil Description

Horizon	Depth	Matrix Color	Mottles Color
Litter	2-0		
A	0-6	10 YR 2/1	
Bg	6-12+	10 YR 4/6	10% 7.5YR 5/6
Remarks:			

3. Other:

Conclusion: Is soil hydric? yes

Other Indicators of Hydrology: (check all that apply & describe)

- ☐ Site Inundated: _____
- ☐ Depth to free water in observation hole: _____
- ☐ Depth to soil saturation in observation hole: _____
- ☐ Water marks: _____
- ☐ Drift lines: _____
- ☐ Sediment Deposits: _____
- ☐ Drainage patterns in BVW: _____
- ☐ Oxidized rhizospheres: _____
- ☐ Water-stained leaves: _____
- ☐ Recorded Data (streams, lake, or tidal gauge; aerial photo; other): _____
- ☐ Other: _____

Vegetation and Hydrology Conclusion

Number of wetland indicator plants
≥ # of non-wetland indicator plants

Wetland hydrology present:

Hydric soil present

Other indicators of hydrology present

Sample location is in a BVW

Submit this form with the Request for Determination of Applicability or Notice of Intent.

MassDEP Bordering Vegetated Wetland (310 CMR 10.55) Delineation Field Data Form

Applicant: Massport Prepared by: G. Cohen, Stantec Project location: Worc. Airport Paxton Street DEP File #:

Check all that apply:

- ☐ Vegetation alone presumed adequate to delineate BVW boundary: fill out Section I only
- ☒ Vegetation and other indicators of hydrology used to delineate BVW boundary: fill out Sections I and II
- ☐ Method other than dominance test used (attach additional information)

Section I.

Vegetation	Observation Plot Number: TP-U		Transect Number: 2-7A #18	Date of Delineation: 4/25/19
A. Sample Layer & Plant Species (by common/scientific name)	B. Percent Cover (or basal Area)	C. Percent Dominance	D. Dominant Plant (yes or no)	E. Wetland Indicator Category*

TREES

SAPLINGS				
Black cherry	30	30	Yes	FACU
Gray birch	30	30	Yes	FAC*
E. cottonwood	20	20	Yes	FAC*
Red oak	20	20	Yes	FACU-

SHRUBS				
Mountain laurel	30	100	Yes	FACU

GROUND COVER				
Canada mayflower	30	94	Yes	FAC-
Cinnamon fern	2	6	No	FACW

* Use an asterisk to mark wetland indicator plants: plant species listed in the Wetlands Protection Act (MGL c.131, s.40); plants in the genus *Sphagnum*; plants listed as FAC, FAC+, FACW-, FACW, FACW+, or OBL; or plants with physiological or morphological adaptations. If any plants are identified as wetland indicator plants due to physiological or morphological adaptations, describe the adaptation next to the asterisk.

Vegetation conclusion:

Number of dominant wetland indicator plants: 2

Number of dominant non-wetland indicator plants: 3

Is the number of dominant wetland plants equal to or greater than the number of dominant non-wetland plants? No

If vegetation alone is presumed adequate to delineate the BVW boundary, submit this form with the Request for Determination of Applicability or Notice of Intent

Section II. Indicators of Hydrology

Hydric Soil Interpretation

1. Soil Survey

Is there a published soil survey for this site? yes no
title/date:
map number:
soil type mapped:
hydric soil inclusions:

Are field observations consistent with soil survey? yes no
Remarks:

2. Soil Description

Horizon	Depth	Matrix Color	Mottles Color
Litter	2-0		
A	0-4	10 YR 3/2	
B	4-9+	10 YR 4/3	
B	9-13+	7.5 YR 4/6	

Remarks:

3. Other:

Conclusion: Is soil hydric? No

Other Indicators of Hydrology: (check all that apply & describe)

Vegetation and Hydrology Conclusion	Yes	No
Number of wetland indicator plants ≥ # of non-wetland indicator plants	—	✓
Wetland hydrology present:		
Hydric soil present	—	✓
Other indicators of hydrology present	—	✓
Sample location is in a BVW	—	✓

Submit this form with the Request for Determination of Applicability or Notice of Intent.

MassDEP Bordering Vegetated Wetland (310 CMR 10.55) Delineation Field Data Form

Applicant: Massport Prepared by: G. Cohen, Stantec Project location: Worc. Airport Paxton Street DEP File #:

Check all that apply:

- ☐ Vegetation alone presumed adequate to delineate BVW boundary: fill out Section I only
- ☒ Vegetation and other indicators of hydrology used to delineate BVW boundary: fill out Sections I and II
- ☐ Method other than dominance test used (attach additional information)

Section I.

Vegetation	Observation Plot Number: TP-W		Transect Number: 2-7A #18	Date of Delineation: 4/25/19
A. Sample Layer & Plant Species (by common/scientific name)	B. Percent Cover (or basal Area)	C. Percent Dominance	D. Dominant Plant (yes or no)	E. Wetland Indicator Category*

TREES

SAPLINGS

Gray birch	Betula populifolia	30	55	Yes	FAC*
Red maple	Acer rubrum	20	36	Yes	FAC*
Black cherry	Prunus serotina	5	9	No	FACU

SHRUBS

Bebb willow	Salix bebbiana	25	100	Yes	FACW+*
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GROUND COVER

Sphagnum		50	77	Yes	FAC*
Cinnamon fern	Osmunda cinnamomea	15	23	Yes	FACW*

* Use an asterisk to mark wetland indicator plants: plant species listed in the Wetlands Protection Act (MGL c.131, s.40); plants in the genus Sphagnum; plants listed as FAC, FAC+, FACW-, FACW, FACW+, or OBL; or plants with physiological or morphological adaptations. If any plants are identified as wetland indicator plants due to physiological or morphological adaptations, describe the adaptation next to the asterisk.

Vegetation conclusion:

Number of dominant wetland indicator plants: 5

Number of dominant non-wetland indicator plants: 0

Is the number of dominant wetland plants equal to or greater than the number of dominant non-wetland plants? Yes

If vegetation alone is presumed adequate to delineate the BVW boundary, submit this form with the Request for Determination of Applicability or Notice of Intent

Section II. Indicators of Hydrology

Hydric Soil Interpretation

1. Soil Survey

Is there a published soil survey for this site? yes no
title/date: _____
map number: _____
soil type mapped: _____
hydric soil inclusions: _____

Are field observations consistent with soil survey? yes no
Remarks: _____

2. Soil Description

Horizon	Depth	Matrix Color	Mottles Color
Litter	2-0		
A	0-5	10 YR 2/1	
Bg	5-13+	10 YR 5/1	

Remarks: _____

3. Other:

Conclusion: Is soil hydric? Yes

Other Indicators of Hydrology: (check all that apply & describe)

- ☐ Site Inundated: _____
- ☒ Depth to free water in observation hole: 5"

- ☐ Depth to soil saturation in observation hole: _____
- ☐ Water marks: _____
- ☐ Drift lines: _____
- ☐ Sediment Deposits: _____
- ☐ Drainage patterns in BVW: _____
- ☐ Oxidized rhizospheres: _____
- ☐ Water-stained leaves: _____
- ☐ Recorded Data (streams, lake, or tidal gauge; aerial photo; other): _____
- ☐ Other: _____

Vegetation and Hydrology Conclusion

	Yes	No
Number of wetland indicator plants ≥ # of non-wetland indicator plants	✓	—
Wetland hydrology present:		
Hydric soil present	✓	—
Other indicators of hydrology present	✓	—
Sample location is in a BVW	✓	—

Submit this form with the Request for Determination of Applicability or Notice of Intent.

MassDEP Bordering Vegetated Wetland (310 CMR 10.55) Delineation Field Data Form

Applicant: Massport Prepared by: G. Cohen, Stantec Project location: Worc. Airport Paxton Street DEP File #:

Check all that apply:

- ☐ Vegetation alone presumed adequate to delineate BVW boundary: fill out Section I only
- ☒ Vegetation and other indicators of hydrology used to delineate BVW boundary: fill out Sections I and II
- ☐ Method other than dominance test used (attach additional information)

Section I.

Vegetation	Observation Plot Number: TP-U		Transect Number: 2-9A #15	Date of Delineation: 4/24/19
A. Sample Layer & Plant Species (by common/scientific name)	B. Percent Cover (or basal Area)	C. Percent Dominance	D. Dominant Plant (yes or no)	E. Wetland Indicator Category*

TREES

SAPLINGS

Black cherry	30	67	Yes	FACU
Quaking aspen	15	33	Yes	FACU

SHRUBS

Black cherry	20	91	Yes	FACU
Meadow-sweet	2	9	No	FAC+*

GROUND COVER

Canada mayflower	15	75	Yes	FAC-
Black cherry	5	25	Yes	FACU

* Use an asterisk to mark wetland indicator plants: plant species listed in the Wetlands Protection Act (MGL c.131, s.40); plants in the genus *Sphagnum*; plants listed as FAC, FAC+, FACW-, FACW, FACW+, or OBL; or plants with physiological or morphological adaptations. If any plants are identified as wetland indicator plants due to physiological or morphological adaptations, describe the adaptation next to the asterisk.

Vegetation conclusion:

Number of dominant wetland indicator plants: 0

Number of dominant non-wetland indicator plants: 5

Is the number of dominant wetland plants equal to or greater than the number of dominant non-wetland plants? no

If vegetation alone is presumed adequate to delineate the BVW boundary, submit this form with the Request for Determination of Applicability or Notice of Intent

Section II. Indicators of Hydrology

Hydric Soil Interpretation

1. Soil Survey

Is there a published soil survey for this site? yes no
title/date:
map number:
soil type mapped:
hydric soil inclusions:

Are field observations consistent with soil survey? yes no
Remarks:

2. Soil Description

Horizon	Depth	Matrix Color	Mottles Color
Litter	2-0		
A	0-3	10 YR 2/1	
B	3-6+	10 YR 4/4	
	6-12+	10 YR 4/6	

Remarks:

3. Other:

Conclusion: Is soil hydric? no

Other Indicators of Hydrology: (check all that apply & describe)

- ☐ Site Inundated: _____
- ☐ Depth to free water in observation hole: _____
- ☐ Depth to soil saturation in observation hole: _____
- ☐ Water marks: _____
- ☐ Drift lines: _____
- ☐ Sediment Deposits: _____
- ☐ Drainage patterns in BVW: _____
- ☐ Oxidized rhizospheres: _____
- ☐ Water-stained leaves: _____
- ☐ Recorded Data (streams, lake, or tidal gauge; aerial photo; other): _____
- ☐ Other: _____

Vegetation and Hydrology Conclusion

	Yes	No
Number of wetland indicator plants ≥ # of non-wetland indicator plants	_____	✓ _____
Wetland hydrology present:		
Hydric soil present	_____	✓ _____
Other indicators of hydrology present	_____	✓ _____
Sample location is in a BVW	_____	✓ _____

Submit this form with the Request for Determination of Applicability or Notice of Intent.

MassDEP Bordering Vegetated Wetland (310 CMR 10.55) Delineation Field Data Form

Applicant: Massport Prepared by: G. Cohen, Stantec Project location: Worc. Airport Paxton Street DEP File #:

Check all that apply:

- ☐ Vegetation alone presumed adequate to delineate BVW boundary: fill out Section I only
- ☒ Vegetation and other indicators of hydrology used to delineate BVW boundary: fill out Sections I and II
- ☐ Method other than dominance test used (attach additional information)

Section I.

Vegetation		Observation Plot Number: TP-W	Transect Number: 2-9A #15	Date of Delineation: 4/24/19
A. Sample Layer & Plant Species (by common/scientific name)	B. Percent Cover (or basal Area)	C. Percent Dominance	D. Dominant Plant (yes or no)	E. Wetland Indicator Category*

TREES

SAPLINGS				
Black willow	Salix nigra	25	68	Yes
Gray birch	Betula populifolia	10	27	Yes
Red oak	Quercus rubra	2	5	No

FACW+*
FAC*
FACU-

SHRUBS

Speckled alder	Alnus rugosa	30	60	Yes
H Blueberry	Vaccinium corymbosum	20	40	Yes
GROUND COVER				
Sphagnum		40	65	Yes
Soft rush	Juncus effusus	12	19	No
Massachusetts fern	Thelypteris simulata	10	16	No

FACW+*
FACW-*

FAC*
FACW+*
FACW*

* Use an asterisk to mark wetland indicator plants: plant species listed in the Wetlands Protection Act (MGL c.131, s.40); plants in the genus Sphagnum; plants listed as FAC, FAC+, FACW-, FACW, FACW+, or OBL; or plants with physiological or morphological adaptations. If any plants are identified as wetland indicator plants due to physiological or morphological adaptations, describe the adaptation next to the asterisk.

Vegetation conclusion:

Number of dominant wetland indicator plants: 5

Number of dominant non-wetland indicator plants: 0

Is the number of dominant wetland plants equal to or greater than the number of dominant non-wetland plants? yes

If vegetation alone is presumed adequate to delineate the BVW boundary, submit this form with the Request for Determination of Applicability or Notice of Intent

Section II. Indicators of Hydrology

Hydric Soil Interpretation

1. Soil Survey

Is there a published soil survey for this site? yes no
title/date:
map number:
soil type mapped:
hydric soil inclusions:

Are field observations consistent with soil survey? yes no
Remarks:

2. Soil Description

Horizon	Depth	Matrix Color	Mottles Color
Litter	2-0		
A	0-6	10 YR 2/1	
B	6-13+	10 YR 5/2	10% 7.5YR 5

Remarks:

3. Other:

Conclusion: Is soil hydric? yes

Other Indicators of Hydrology: (check all that apply & describe)

- ☐ Site Inundated: _____
- ☒ Depth to free water in observation hole: 4"

- ☐ Depth to soil saturation in observation hole: _____
- ☐ Water marks: _____
- ☐ Drift lines: _____
- ☐ Sediment Deposits: _____
- ☐ Drainage patterns in BVW: _____
- ☐ Oxidized rhizospheres: _____
- ☐ Water-stained leaves: _____
- ☐ Recorded Data (streams, lake, or tidal gauge; aerial photo; other): _____
- ☐ Other: _____

Vegetation and Hydrology Conclusion

Number of wetland indicator plants
≥ # of non-wetland indicator plants

Wetland hydrology present:

Hydric soil present

Other indicators of hydrology present

Sample location is in a BVW

Submit this form with the Request for Determination of Applicability or Notice of Intent.

MassDEP Bordering Vegetated Wetland (310 CMR 10.55) Delineation Field Data Form

Applicant: Massport Prepared by: G. Cohen, Stantec Project location: Worc. Airport Mulberry Street Street DEP File #:

Check all that apply:

- ☐ Vegetation alone presumed adequate to delineate BVW boundary: fill out Section I only
- ☒ Vegetation and other indicators of hydrology used to delineate BVW boundary: fill out Sections I and II
- ☐ Method other than dominance test used (attach additional information)

Section I.

Vegetation	Observation Plot Number: TP-U	Transect Number: 2-11A #20	Date of Delineation: 4/25/19
A. Sample Layer & Plant Species (by common/scientific name)	B. Percent Cover (or basal Area)	C. Percent Dominance	D. Dominant Plant (yes or no)
E. Wetland Indicator Category*			

TREES

Red oak	Quercus rubra	40	53	Yes	FACU-
Red Maple	Acer rubrum	15	20	Yes	FAC*
Yellow birch	Betula alleghaniensis	10	13	No	FAC
Gray birch	Betula populifolia	10	13	No	FAC

SAPLINGS

SHRUBS

Mountain laurel	Kalmia latifolia	60	100	Yes	FACU
GROUND COVE					
Canada mayflower	Maianthemum canadense	5	100	Yes	FAC-

* Use an asterisk to mark wetland indicator plants: plant species listed in the Wetlands Protection Act (MGL c.131, s.40); plants in the genus Sphagnum; plants listed as FAC, FAC+, FACW-, FACW, FACW+, or OBL; or plants with physiological or morphological adaptations. If any plants are identified as wetland indicator plants due to physiological or morphological adaptations, describe the adaptation next to the asterisk.

Vegetation conclusion:

Number of dominant wetland indicator plants: 1

Number of dominant non-wetland indicator plants: 3

Is the number of dominant wetland plants equal to or greater than the number of dominant non-wetland plants? No

If vegetation alone is presumed adequate to delineate the BVW boundary, submit this form with the Request for Determination of Applicability or Notice of Intent

Section II. Indicators of Hydrology

Hydric Soil Interpretation

1. Soil Survey

Is there a published soil survey for this site? yes no
title/date: _____
map number: _____
soil type mapped: _____
hydric soil inclusions: _____

Are field observations consistent with soil survey? yes no
Remarks: _____

2. Soil Description

Horizon	Depth	Matrix Color	Mottles Color
A	0-4	10 YR 3/2	_____
Bg	4-11+	10 YR 4/4	_____

Other: _____			

Remarks: Auger refused at 911" due to rock/ledge

- ☐ Depth to soil saturation in observation hole: _____
- ☐ Water marks: _____
- ☐ Drift lines: _____
- ☐ Sediment Deposits: _____
- ☐ Drainage patterns in BVW: _____
- ☐ Oxidized rhizospheres: _____
- ☐ Water-stained leaves: _____
- ☐ Recorded Data (streams, lake, or tidal gauge; aerial photo; other): _____
- ☐ Other: _____

3. Other:

Conclusion: Is soil hydric? No

Other Indicators of Hydrology: (check all that apply & describe)

- ☐ Site Inundated: _____
- ☐ Depth to free water in observation hole: _____

Vegetation and Hydrology Conclusion

Number of wetland indicator plants
≥ # of non-wetland indicator plants

Yes No
_____ ✓

Wetland hydrology present:

Hydric soil present

_____ ✓

Other indicators of hydrology present

_____ ✓

Sample location is in a BVW

_____ ✓

Submit this form with the Request for Determination of Applicability or Notice of Intent.

MassDEP Bordering Vegetated Wetland (310 CMR 10.55) Delineation Field Data Form

Applicant: Massport Prepared by: G. Cohen, Stantec Project location: Worc. Airport Mulberry Street Street DEP File #:

Check all that apply:

- ☐ Vegetation alone presumed adequate to delineate BVW boundary: fill out Section I only
- ☒ Vegetation and other indicators of hydrology used to delineate BVW boundary: fill out Sections I and II
- ☐ Method other than dominance test used (attach additional information)

Section I.

Vegetation		Observation Plot Number: TP-W		Transect Number: 2-11A #20	Date of Delineation: 4/25/19
A. Sample Layer & Plant Species (by common/scientific name)	B. Percent Cover (or basal Area)	C. Percent Dominance	D. Dominant Plant (yes or no)	E. Wetland Indicator Category*	
TREES					
Red Maple	<i>Acer rubrum</i>	25	36	Yes	FAC*
Green ash	<i>Fraxinus pennsylvanica</i>	20	29	Yes	FACW+*
Yellow birch	<i>B. alleghaniensis</i>	20	29	Yes	FAC*
Red oak	<i>Quercus rubra</i>	5	6	No	FACU-
SAPLINGS					
SHRUBS					
Red maple	<i>Acer rubrum</i>	20	67	Yes	FAC*
Mountain laurel	<i>Kalmia latifolia</i>	10	33	Yes	FACU
GROUND COVER					
Sphagnum		30	79	Yes	FAC*
Canada mayflower	<i>Maianthemum canadense</i>	8	21	Yes	FAC-*

* Use an asterisk to mark wetland indicator plants: plant species listed in the Wetlands Protection Act (MGL c.131, s.40); plants in the genus *Sphagnum*; plants listed as FAC, FAC+, FACW-, FACW, FACW+, or OBL; or plants with physiological or morphological adaptations. If any plants are identified as wetland indicator plants due to physiological or morphological adaptations, describe the adaptation next to the asterisk.

Vegetation conclusion:

Number of dominant wetland indicator plants: 5

Number of dominant non-wetland indicator plants: 2

Is the number of dominant wetland plants equal to or greater than the number of dominant non-wetland plants? Yes

If vegetation alone is presumed adequate to delineate the BVW boundary, submit this form with the Request for Determination of Applicability or Notice of Intent

Section II. Indicators of Hydrology

Hydric Soil Interpretation

1. Soil Survey

Is there a published soil survey for this site? yes no
title/date:
map number:
soil type mapped:
hydric soil inclusions:

Are field observations consistent with soil survey? yes no
Remarks:

2. Soil Description

Horizon	Depth	Matrix Color	Mottles Color
A	0-6	10 YR 3/1	
Bg	6-9+	10 YR 5/1	

Remarks: Water near the surface, auger refused at 9" due to rock/ledge

3. Other:

Conclusion: Is soil hydric? Yes

Other Indicators of Hydrology: (check all that apply & describe)

- ☐ Site Inundated: _____
- ☐ Depth to free water in observation hole: _____

- ☐ Depth to soil saturation in observation hole: _____
- ☐ Water marks: _____
- ☐ Drift lines: _____
- ☐ Sediment Deposits: _____
- ☐ Drainage patterns in BVW: _____
- ☐ Oxidized rhizospheres: _____
- ☐ Water-stained leaves: _____
- ☐ Recorded Data (streams, lake, or tidal gauge; aerial photo; other):

- ☐ Other: _____

Vegetation and Hydrology Conclusion

Number of wetland indicator plants
≥ # of non-wetland indicator plants

Yes
✓
No
—

Wetland hydrology present:

Hydric soil present

✓

Other indicators of hydrology present

✓

Sample location is in a BVW

✓

Submit this form with the Request for Determination of Applicability or Notice of Intent.