May 12, 2022

Town of Deerfield Conservation Commission
8 Conway Street
South Deerfield, MA 01373

RE: **Notice of Intent**
All States Materials Group Haul Road Improvements
901 River Road, Deerfield, MA 01342

Dear Commission Members:

On behalf of All States Materials Group (ASMG), and in accordance with the Massachusetts Wetland Protection Act (WPA) M.G.L c131, s40, Kleinfelder has prepared this Notice of Intent (NOI) to widen an existing gravel road within their 212-acre facility in South Deerfield, MA. The road widening will also include replacement of the culvert under the existing road, modification of the existing stormwater management system to accommodate the wider road, and construction of a pad site. A portion of the work is within the following resources regulated under the WPA: 100-Foot Buffer to Bordering Vegetated Wetland, Bank, Land Under Water Bodies and Waterways, and Riverfront Area.

Attached is NOI Form 3 with supplemental documentation included. A check is included for the fee of $1,100, due to the Town of Deerfield. In addition, this application has been transmitted to the Department of Environmental Protection Central Regional Office.

We respectfully request the Commission include this project on the agenda for the next available public hearing. Please contact ASMG or myself at 508-287-3541 or episkura@kleinfelder.com if you have any questions regarding this project. Thank you for your consideration on this matter.

Respectfully yours,

Eileen Piskura
Kleinfelder

cc: Daniel Hartman, All States Materials Group

All STATES MATERIALS GROUP HAUL ROAD IMPROVEMENT PROJECT

901 River Road
Deerfield, MA

NOTICE OF INTENT

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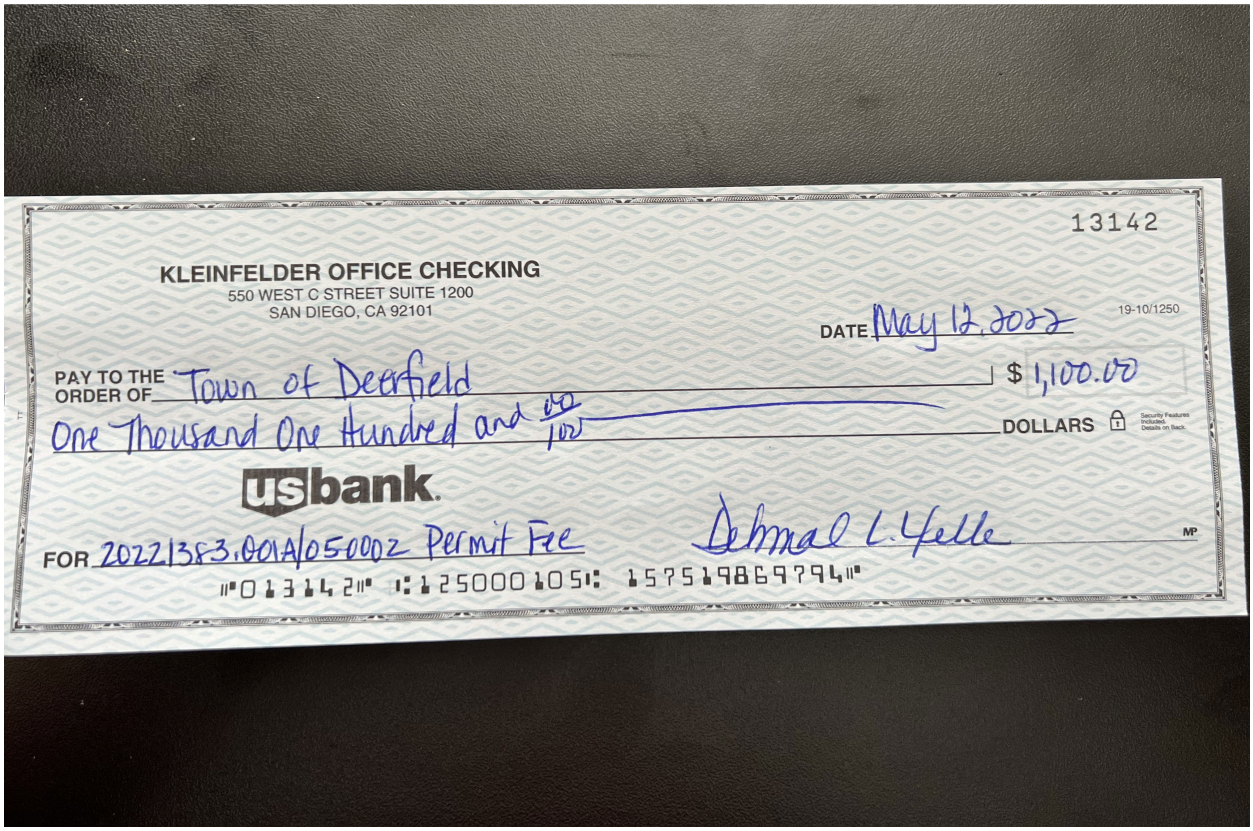


13142

KLEINFELDER OFFICE CHECKING
550 WEST C STREET SUITE 1200
SAN DIEGO, CA 92101

19-10/1250

DATE May 12, 2022

PAY TO THE ORDER OF Town of Deerfield $ 1,100.00

One Thousand One Hundred and 00/100 DOLLARS

Security Features Included. Details on Back.

usbank

FOR 20221383.001A/05002 Permit Fee

Deborah L. Yelle

MP

⑈013142⑈ ⑆125000105⑆ 157519869794⑈

KLEINFELDER
Bright People. Right Solutions.

NOI FORMS

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

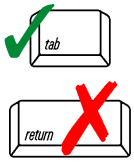
Provided by MassDEP:

MassDEP File Number

Document Transaction Number

Deerfield
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):

901 River Road — a. Street Address
Deerfield — b. City/Town
01342 — c. Zip Code

Latitude and Longitude:
42.566299 — d. Latitude
-72.580223 — e. Longitude

21, 7 — f. Assessors Map/Plat Number
1, 14 — g. Parcel /Lot Number

2. Applicant:

Daniel — a. First Name
Hartman — b. Last Name
All States Materials Group — c. Organization
901 River Road — d. Street Address
Deerfield — e. City/Town
MA — f. State
01342 — g. Zip Code
(413) 843-3240 — h. Phone Number
i. Fax Number
dhartman@asmg.com — 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):

Eileen — a. First Name
Piskura — b. Last Name
Kleinfelder — c. Company
4 Technology Drive, Suite 110 — d. Street Address
Westborough — e. City/Town
MA — f. State
01581 — g. Zip Code
(508) 287-3541 — h. Phone Number
i. Fax Number
episkura@kleinfelder.com — j. Email address

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

$2,175 — a. Total Fee Paid
$1,075 — b. State Fee Paid
$1,100 — c. City/Town Fee Paid

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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Deerfield
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A. General Information (continued)

6. General Project Description:

An existing gravel road requires improvement in order to meet Mine Safety and Health Administration requirements for heavy vehicle traffic. The proposed project would widen the road, replace the existing stream crossing, and construct a pad site to be utilized for a parking area. See attached Project Narrative for additional details.

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)

2. Limited Project Type

If the proposed activity is eligible to be treated as an Ecological Restoration Limited Project (310 CMR10.24(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:

a. County	b. Certificate # (if registered land)
Franklin	
c. Book	d. Page Number
5069	235, 238

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

1. ☐ 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.
2. ☒ 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.

Massachusetts Department of Environmental Protection
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WPA Form 3 – Notice of Intent

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

Provided by MassDEP:
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Deerfield
City/Town

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	745 (1. linear feet)	(2. linear feet)
b. ☐ Bordering Vegetated Wetland	(1. square feet)	(2. square feet)
c. ☒ Land Under Waterbodies and Waterways	4,318 (1. square feet); 0 (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	Unnammed tributary to Deerfield River (inland) (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: 1,958,889 square feet

4. Proposed alteration of the Riverfront Area:

a. total square feet	b. square feet within 100 ft.	c. square feet between 100 ft. and 200 ft.
110,225	56,108	54,117

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.

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

Deerfield
City/Town

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.

Resource Area	Size of Proposed Alteration	Proposed Replacement (if any)
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

	Size of Proposed Alteration	Proposed Replacement (if any)
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

1
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

   15th edition, August 2021

   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 https://www.mass.gov/ma-endangered-species-act-mesa-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 https://www.mass.gov/how-to/how-to-file-for-a-mesa-project-review).
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, https://www.mass.gov/service-details/exemptions-from-review-for-projectsactivities-in-priority-habitat; 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@mass.gov

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@mass.gov

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.

c. ☐ Is this an aquaculture project? d. ☐ Yes ☐ No

If yes, include a copy of the Division of Marine Fisheries Certification Letter (M.G.L. c. 130, § 57).

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

Deerfield
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.

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Provided by MassDEP:

MassDEP File Number

Document Transaction Number

Deerfield
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.

ASMG Haul Road Replacement
a. Plan Title

Kurt Violette
b. Prepared By

c. Signed and Stamped by

4/27/2022
d. Final Revision Date

1" = 40'
e. Scale

f. Additional Plan or Document Title

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:

13142
2. Municipal Check Number

May 12, 2022
3. Check date

13143
4. State Check Number

May 12, 2022
5. Check date

Kleinfelder Office Checking
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

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

Provided by MassDEP:

MassDEP File Number

Document Transaction Number

Deerfield
City/Town

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.

Daniel Hartman, PE	5/12/2022
1. Signature of Applicant	2. Date
3. Signature of Property Owner (if diffe	4. Date
5. Signature of Representative (if any)	5/12/2022 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

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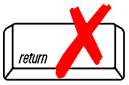


A. Applicant Information

1. Location of Project:

901 River Road	Deerfield
a. Street Address	b. City/Town
13143	$1,075
c. Check number	d. Fee amount

2. Applicant Mailing Address:

Daniel		Hartman	
a. First Name		b. Last Name	
All States Materials Group			
c. Organization			
901 River Road			
d. Mailing Address			
Deerfield		MA	01342
e. City/Town		f. State	g. Zip Code
(413) 712-0759		dhartman@asmg.com	
h. Phone Number	i. Fax Number	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

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

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.

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

B. Fees (continued)

Step 1/Type of Activity	Step 2/Number of Activities	Step 3/Individual Activity Fee	Step 4/Subtotal Activity Fee
Cetegory 4 (A)	1	$1,450	$2,175

Step 5/Total Project Fee: $2,175

Step 6/Fee Payments:

Total Project Fee:	$2,175 (a. Total Fee from Step 5)
State share of filing Fee:	$1,075 (b. 1/2 Total Fee **less $**12.50)
City/Town share of filling Fee:	$1,100 (c. 1/2 Total Fee **plus** $12.50)

C. Submittal Requirements

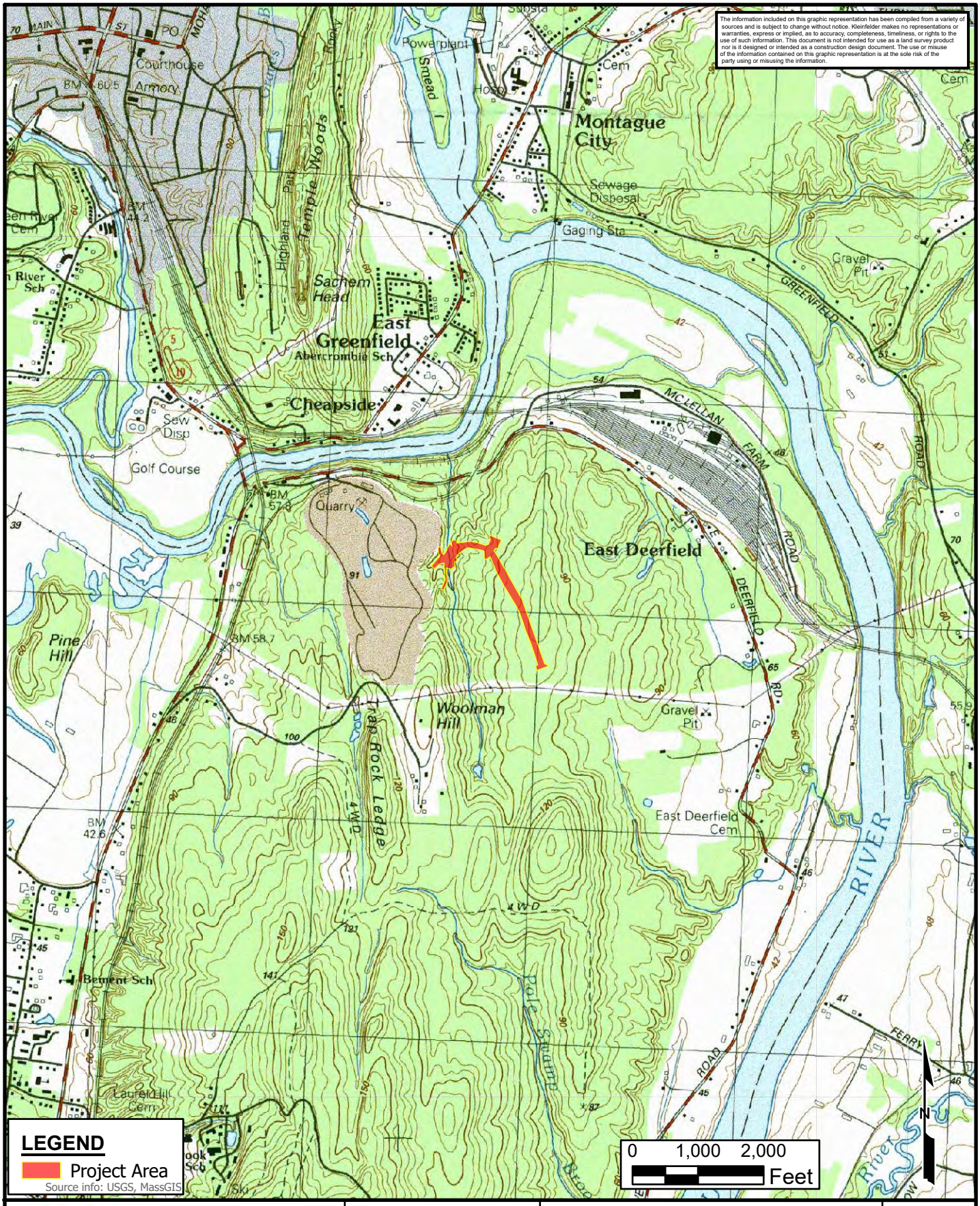
a.) Complete pages 1 and 2 and send with a check or money order for the state share of the fee, payable to the Commonwealth of Massachusetts.

Department of Environmental Protection
Box 4062
Boston, MA 02211

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.)

NOI FIGURES



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LEGEND

Project Area

Source info: USGS, MassGIS

Date: 4/29/2022 User: ADAmario Path: \\azrgisstorp01\GIS_Projects\Client\All_States_Materials\River_Rd_Project\MAPS\All_States_Materials_NOI_Figures.aprx

KLEINFELDER
Bright People. Right Solutions.
www.kleinfelder.com

PROJECT NO.	20221383.001A
CREATED:	4/29/2022
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FIGURE 1
USGS Locus Map

All States Materials Group
Haul Road Replacement
901 River Road
Deerfield, Massachusetts

FIGURE
1

Date: 4/29/2022 User: ADAmario Path: \\azrgisstorp01\GIS_Projects\Client\All_States_Materials\River_Rd_Project\MAPS\All_States_Materials_NOI_Figures.aprx

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FIGURE 2
Aerial Map

All States Materials Group
Haul Road Replacement
901 River Road
Deerfield, Massachusetts

FIGURE
2

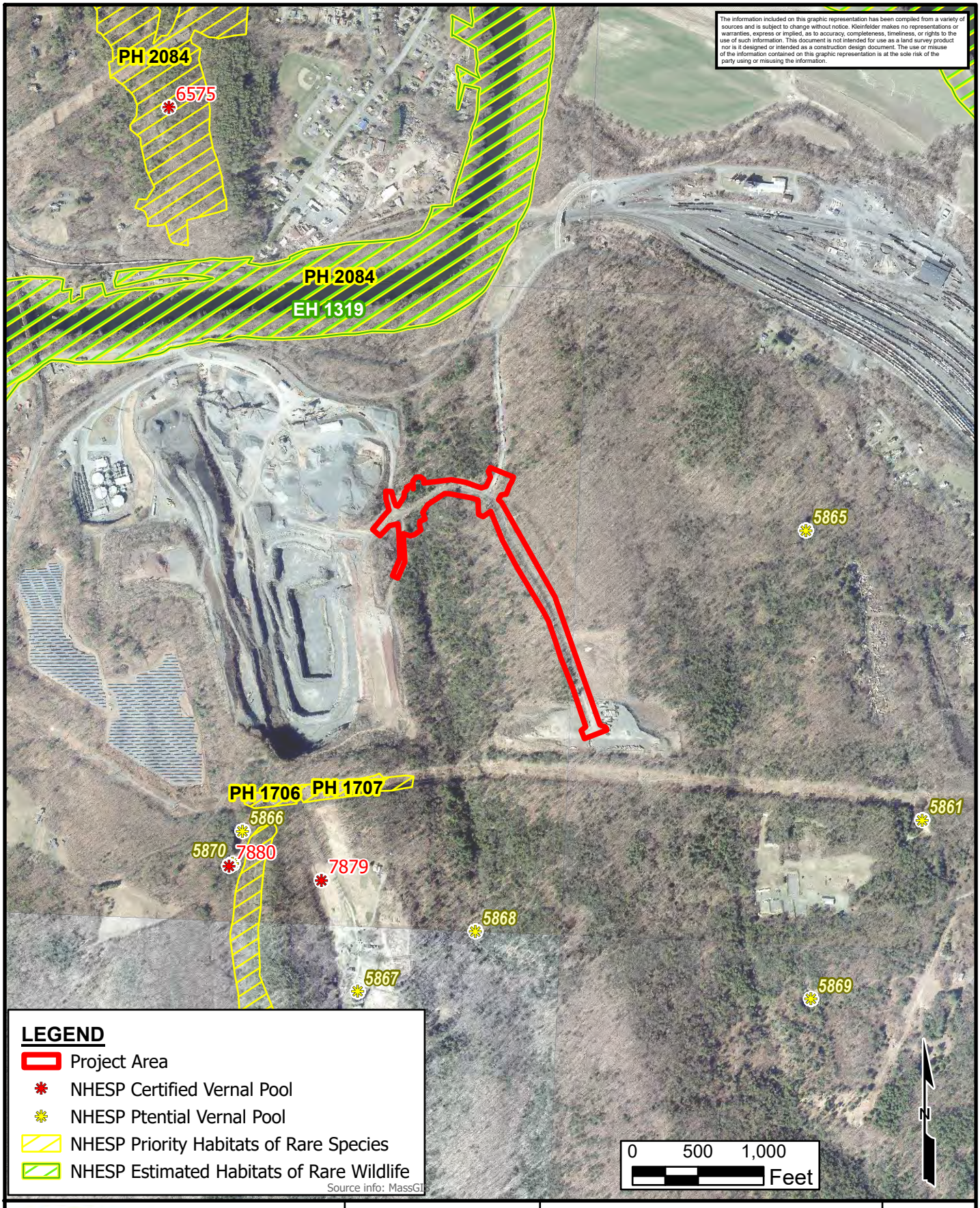

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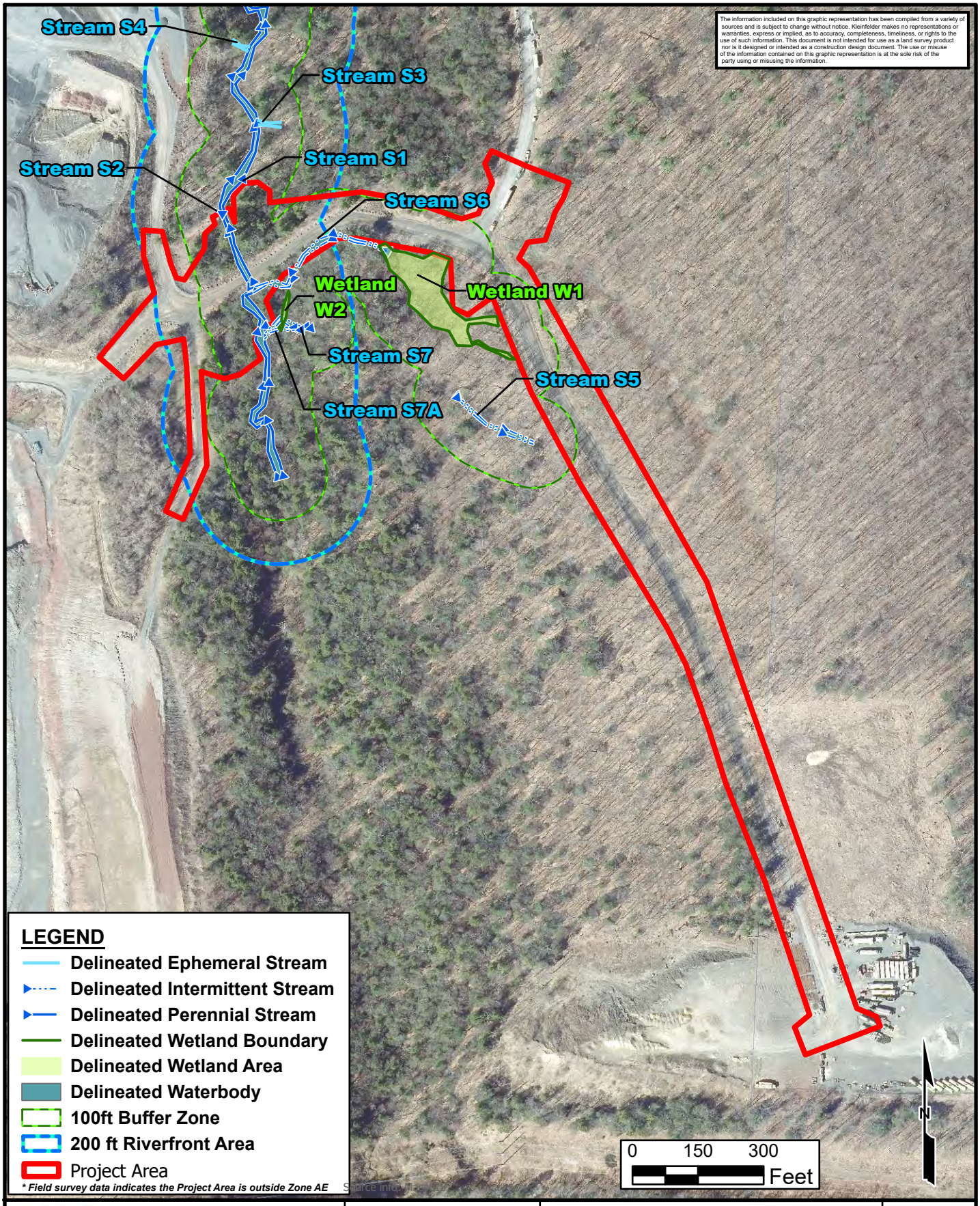
FIGURE 3
NHESP Map

All States Materials Group
Haul Road Replacement
901 River Road
Deerfield, Massachusetts

FIGURE
3



LEGEND

- Delineated Ephemeral Stream
- Delineated Intermittent Stream
- Delineated Perennial Stream
- Delineated Wetland Boundary
- Delineated Wetland Area
- Delineated Waterbody
- 100ft Buffer Zone
- 200 ft Riverfront Area
- Project Area

** Field survey data indicates the Project Area is outside Zone AE*

Source information

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FIGURE 4
Regulated Resources Map

All States Materials Group
Haul Road Replacement
901 River Road
Deerfield, Massachusetts

FIGURE
4

LEGEND

BUFFER ZONE & RESOURCE IMPACTS (TEMPORARY & PERMANENT)

745 LF	BANK
0 SF	BORDERING VEGETATED WETLAND
4,318 SF	LAND UNDER WATERBODIES AND WATERWAYS
110,225 SF	RIVERFRONT AREA
79,599 SF	WETLAND 100-FT BUFFER

STREAM S1
LIMITS OF DISTURBANCE (TYP.)
200-FT RIVERFRONT AREA
STREAM S6
WETLAND W1
WETLAND W2
STREAM S7
STREAM S7A
100-FT WETLAND BUFFER ZONE
APPROX. LOCATION EXISTING DRIVE
STREAM S5
LOD
ECM

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1500 Main Street, Suite 1506
PO Box 15511
Springfield, MA 15511-5511
Phone: 413-739-1307

Signed By: #

REVISIONS

REV	DESCRIPTION	DSN / DWN	CHK / APP	DATE

ISSUED FOR PERMITTING

SCALE VERIFICATION

THIS BAR IS 1 INCH IN LENGTH ON ORIGINAL DRAWING

0 — 1"

IF IT'S NOT 1 INCH ON THIS SHEET ADJUST YOUR SCALES ACCORDINGLY

0 — 40 — 80
SCALE: 1" = 40' SCALE IN FEET

ORIGINAL DRAWING SIZE IS 22 x 34

ISSUE FOR PERMIT (IFP) PLANS

ASMG HAUL ROAD DESIGN
901 RIVER ROAD
FRANKLIN COUNTY, MASSACHUSETTS

All States Materials Group®

ALL STATES MATERIALS GROUP
901 RIVER ROAD
DEERFIELD, MA 01342

BUFFER ZONE & RESOURCE IMPACTS

PROJECT NO.	20221383.001A
ISSUE DATE	04/29/2022
CURRENT REVISION	A
DESIGNED BY	KRV
DRAWN BY	KRV
CHECKED BY	AGB
APPROVED BY	JW

EXHIBIT A

PLOTTED: 4/29/2022 4:59 PM BY: kurt violette
LAYOUT: EXH A
CAD FILE: C:\pwwork\kingk\kleinfelderpw01\kleinfelder_kviolette\d0212978\EXH A_20221383_Buffer Zone-Resource Impacts.dwg

ATTACHMENT A

NOI Narrative

Attachment A – Notice of Intent Narrative

This Notice of Intent (NOI) is filed pursuant to the Massachusetts Wetlands Protection Act (WPA) (MGL Chapter 131, Section 40) and its implementing regulations (310 CMR 10.00). This narrative presents an introduction to the Haul Road Replacement Project (Project), proposed by the All States Materials Group (ASMG) in Deerfield, MA. This narrative includes a discussion of regulated resource areas associated with the Project, a description of proposed work, proposed construction mitigation measures, and a discussion of how the Project meets the performance standards of the WPA regulations. Refer to the accompanying Project plans, included as Attachment B to the NOI, for a plan layout and details of the Project components. In addition, Figures 1 through 5 present the Project Area and associated regulated resource mapping.

Introduction

All States Materials Group (ASMG) proposes to improve an existing gravel haul road within their property accessed at 901 River Road in Deerfield, Massachusetts. The improved haul road has been designed to meet Mine Safety and Health Administration (MSHA) requirements to provide the operational safety, as well as the stormwater control and quality. Improvements primarily include widening the road, and replacing the existing double culvert through which a perennial tributary to the Deerfield River flows. Additional improvements incidental to the road widening include modifications to the existing stormwater system to accommodate the wider road and construction of a pad site to be used for vehicle parking.

Proposed work for the Project would occur within the following WPA regulated resources: 100-Foot Buffer to Bordering Vegetated Wetland (BVW), Bank, Land Under Water Bodies and Waterways (LUWW), and Riverfront Area. The Project meets or exceeds all performance standards under the WPA for these resources. The project is also designed to be compliant with Massachusetts Stream Crossing Standards presented in Section 310 CMR 10.54(4) of the WPA.

Site Description

ASMG owns and operates a 212-acre facility on two parcels of land utilized by two businesses: Trew Stone, LLC operates a rock quarry and two hot mix asphalt plants; and All States Asphalt, LLC operates an above ground storage tank farm. The Project area within this facility is typically heavily disturbed by industrial activities. Work proposed under the scope of this NOI would occur on the east side of the existing facilities, within the center of two parcels. The west side of the Project area is bounded by the existing ASMG facility. The north, south, and east sides of the Project area are bounded by deciduous forest. Refer to Figures 1 and 2 for a USGS map and aerial map of the Project area. The existing gravel haul road, known as Lenny Lane, slopes down from east to west, with elevations ranging from 187 to 350 ft. Two gravel roads intersect the haul road with two stormwater ponds and associated drainage pipes and culverts located adjacent to the haul road. An unnamed tributary to the Deerfield River flows north, under the haul road and through a double barrel culvert. Two forested BVWs are mapped to the south of the haul road, draining to intermittent streams that flow into the unnamed tributary to the Deerfield River.

According to the most recently available data provided by the Massachusetts Natural Heritage and Endangered Species Program (NHESP), no Priority Habitats for Rare Species or Estimated Habitats for Rare Wildlife are mapped in the vicinity of the Project area. No certified or potential vernal pools have been mapped in the Project area. The Project area is not located within or near an Area of Critical Environmental Concern. According to the Massachusetts Department of Environmental Protection (MassDEP), the Project area is not located within an Outstanding Resource Water area and is not designated as a Wellhead Protection Area.

Regulated Resource Areas

Aquatic resources in the Project area were identified and delineated by environmental scientists from Kleinfelder on October 28, 2021, in accordance with methods developed by the MassDEP and U.S. Army Corps of Engineers (USACE). A wetland delineation memo and data forms are included in Attachment C. Resource areas are shown on Figure 4 and in the accompanying Project plans in Attachment B.

The following resource areas have been identified within the Project area:

- Bordering Vegetated Wetland (BVW)
- Land Under Waterbodies and Waterways (LUWW)
- Inland Bank
- Riverfront Area

The Project area is also located within the 100-foot Buffer Zone of BVW and Inland Bank. A 100-foot Buffer Zone extends horizontally outward from the regulated wetland resource areas, as defined in 310 CMR 10.02(2)(b). The Buffer Zone is not considered a resource area under the WPA, but areas within the Buffer Zone are under the jurisdiction of the issuing authority.

Bordering Vegetated Wetland

Two BVWs were delineated in the Project Area but will not be impacted by the Project; however, Project activities will occur within the 100-foot Buffer Zone of BVW.

Wetland W1 is located south of the haul road. The wetland is fed by hillside seeps and runoff from the haul road. The wetland discharges to intermittent Stream S6 which flows into the unnamed tributary of the Deerfield River (Stream S1) immediately south of the culvert outlet. Dominant vegetation within Wetland W1 includes red maple (*Acer rubrum*), red oak (*Quercus rubra*), American hornbeam (*Carpinus caroliniana*), American elm (*Ulmus americana*), and interrupted fern (*Osmunda claytoniana*). A 100-foot Buffer Zone extends horizontally outward from the Wetland W1 boundary, and it contains woodlands and the existing haul road.

Wetland W2 is located south of the haul road. The wetland is a small, forested depression on an old forest road. The wetland drains to a braided intermittent stream (Stream S7) which flows into the unnamed tributary to the Deerfield River (Stream S1). Dominant vegetation within the wetland includes eastern hemlock, northern spicebush (*Lindera benzoin*), and sensitive fern (*Osmunda sensibilis*). A 100-foot Buffer Zone extends horizontally outward from the Wetland W2 boundary, and it contains woodlands, a portion of Streams S1, S6, S7, and S7A, and the existing haul road.

Land Under Waterbodies and Waterways, Bank, Riverfront Area

The unnamed tributary to the Deerfield River, Stream S1, which flows north under the existing haul road, is shown as perennial on the USGS topographic map (Greenfield, MA 7.5-minute quadrangle, 2013). Field investigations in October 2021 confirmed the Cowardin classification of the stream as Riverine Upper Perennial Unconsolidated Bottom Cobble-Gravel (R3UB1).

The ordinary high-water mark (OHWM) for the unnamed perennial tributary was delineated, and the feature is mapped as Stream S1. the OHWM was determined based on field indicators such as changes in slope, changes in vegetation, stain lines, and changes in bank materials. Primary channel bed substrate consists of cobble and gravel. The stream flows through mixed forest, with stream canopy cover dominated by eastern hemlock (*Tsuga canadensis*). Stream flow is currently conveyed through a double barrel culvert, each 24-36" wide. The stream width at the culvert inlet is approximately five feet with a water depth of ten inches. A plunge pool is present at the culvert outlet, with a width of approximately ten feet, and a water depth of approximately 1.5 feet.

The bank and land under waterbodies and waterways (LUWW) associated with the Stream S1 are regulated under the WPA. The 200-foot Riverfront Area, which extends horizontally from the OHWM is regulated

under the WPA, as defined in 310 CMR 10.58(2)3. In the Project area this includes the existing haul road and culverted crossing of Stream S1, two additional existing roads, Wetland W2, and woodland areas.

Two intermittent streams, delineated and mapped as Stream S6 and Stream S7, were identified within the Project area. Stream S6 drains Wetland W1 and receives stormwater runoff from the haul road and a stormwater culvert discharging to Wetland W1. Stream S6 is adjacent to the existing haul road and appears to follow a historic stormwater control swale. Stream S6 discharges to Stream S1. Stream S7 is an intermittent stream that originates in an off-site wetland. Wetland W2 overlaps with a braided section of the stream. Stream S7 discharges to the unnamed tributary to the Deerfield River (Stream S1). Non-continuous flow was observed in Stream S6 and S7 during the October 2021 field investigation. See Figure 4 and Project plans in Attachment B for resource locations.

The bank and LUWW associated with the intermittent Streams S6 and S7 are regulated under the WPA however no Riverfront Area is associated with intermittent streams and therefore with these features.

Proposed Activities

The Project includes redevelopment of the existing gravel road known as Lenny Lane to an MSHA compliant haul road. The proposed haul road is approximately 2,680 feet and would be widened from an average width of 30 feet to 60 feet, which includes establishing new grading lines. The existing, double-barrel culverted crossing for Stream S1 would be replaced with an approximately 130-foot-long, 60-inch-wide corrugated metal pipe culvert. Widening of the haul road and the culvert replacement would necessitate the following activities:

- Re-alignment of Stream S1 and Stream S6 to meet the entrance of the replacement culvert through vegetated swales;
- Grading of the north bank and LUWW of Stream S6;
- Modifying the existing stormwater system to accommodate the wider road; and
- Installation of pad site in the east side of the Project area, which would not impact any resources regulated under the WPA.

Construction

Attachment B provides site plans depicting existing and proposed conditions. Construction of the proposed Project includes the following elements:

Site Preparation: Prior to initiating construction activities, ASMG would install erosion control devices around the work area. The area where the haul road would be widened requires clearing and grubbing to remove existing trees and shrubs. Temporary sediment traps would be established to manage stormwater runoff during construction as modifications are made to the stormwater system. Approximate locations for the temporary sediment traps are shown on Project plans in Attachment B and exact locations would be determined in the field. If flow conditions are conducive at the time of construction, ASMG may utilize basins and filter bags to manage stormwater flow during construction in lieu of temporary traps. The site would then be graded and drainage pipes and catch basins removed and disposed of off-site or abandoned in place. Excavated material to be reused on site would be stockpiled and protected with erosion control devices, and excavated material not intended for reuse would be immediately removed and disposed of. New stormwater drainage pipes would then be installed.

Haul Road Widening and Stream Crossing Replacement: Once grading is completed and stormwater drains installed, the existing double barrel culvert would be replaced with a new, 60-inch corrugated metal pipe culvert. The stream would be blocked on the upstream and downstream sides of the culvert by sandbag check dams during the culvert replacement. Water would then be pumped from the upstream side to the downstream side of the culverted crossing. ASMG would use suction strainers on the pump suction line

and discharge hose to reduce the turbidity of the diverted water. Compost filter sock and/or haybales would be used at the end of the discharge hose to act as a sediment trap for any disturbed silt/sedimentation during diversion activities before entering the stream. ASMG would monitor water levels at the upstream and downstream dams to ensure the pump is adequately maintaining stream flow, as well as conduct visual inspection of the discharge area, to ensure water discharged into the stream has minimal turbidity.

Stormwater Management: The facility's stormwater system is permitted and managed under its existing Environmental Protection (EPA) National Pollutant Discharge Elimination System (NPDES) permit. As part of this Project, two stormwater detention ponds (Pond 7P and 11P), three catch basins, associated drainage pipes, and one discharge point (DSN-006) will be removed to accommodate the wider haul road. Two discharge points (DSN-007 and 008) will be relocated as shown on the Project plans. Additional stormwater modifications include a constructed stormwater wetland and new drainage pipes, swales, and catch basins to connect to the relocated discharge points. For a detailed discussion of stormwater management see the Stormwater Report in Attachment D.

Equipment

Anticipated equipment required during the construction of this project includes: bulldozers, utility trucks, dump trucks, road graders, compactors, excavators, and backhoes. Crews will require work trucks.

Schedule

ASMG anticipates beginning construction in October 2022 and completing the Project by May 2023.

Regulatory Compliance

The proposed Project complies with and exceeds applicable performance standards for work in Bank, Riverfront Area, and LUWW. Compliance with the applicable performance standards for each regulated resource that would be altered by the Project is described in more detail below.

Buffer Zone

The Buffer Zone is not a regulated resource area, and therefore work within a Buffer Zone is not governed by specific regulatory performance standards. In general, work within a Buffer Zone is permissible when said work has been designed, or can be conditioned, such that there will be no impact on the downgradient wetland resource area(s) being buffered. As stated in 310 CMR 10.53(1) of the WPA Regulations:

For work in Buffer Zone subject to review under 310 CMR 10.02(2)(b)3., the Issuing Authority shall impose conditions to protect the interests of the Act identified for the adjacent Resource Area… The issuing authority may consider the characteristics of the Buffer Zone, such as the presence of steep slopes, that may increase the potential for adverse impacts on Resource Areas. Conditions may include limitations on the scope and location of work in the Buffer Zone as necessary to avoid alteration of Resource Areas. The Issuing Authority may require erosion and sedimentation controls during construction, a clear limit of work, and the preservation of natural vegetation adjacent to the Resource Area and/or other measures commensurate with the scope and location of work with the Buffer Zone to protect the interests of the Act.

The Project has been designed to address the considerations associated with buffer zones, such as erosion control and run-off. Measures have been incorporated into the Project design to ensure that work will be done in a manner that prevents impacts to downgradient wetland resources through careful management of stormwater runoff and potential sources of erosion. A clear limit of work will be identified, and erosion and sedimentation control areas will be established in the Project Area. Erosion control devices would be placed around the work area to prevent movement of debris from the disturbance area into buffer area. Temporary

disturbance in vegetated areas of Buffer Zone will be restored in place and seeded with a native seed mix following completion of construction.

Inland Bank

The general performance standards for Bank set forth in 310 CMR 10.54(4) are: *the proposed work will not impair the physical stability of the Bank; the water carrying capacity of the existing channel within the Bank; the ground water and surface water quality; the capacity of the Bank to provide breeding habitat, escape cover and food for fisheries; the capacity of the Bank to provide important wildlife habitat functions. A project or projects on a single lot, for which Notice(s) of Intent is filed on or after November 1, 1987, that (cumulatively) alter(s) up to 10% or 50 feet (whichever is less) of the length of the bank found to be significant to the protection of wildlife habitat, shall not be deemed to impair its capacity to provide important wildlife habitat functions. In the case of a bank of a river or an intermittent stream, the impact shall be measured on each side of the stream or river. Additional alterations beyond the above threshold may be permitted if they will have no adverse effects on wildlife habitat, as determined by procedures contained in 310 CMR 10.60. Work on a stream crossing shall be presumed to meet the performance standard set forth in 310 CMR 10.54(4)(a) provided the work is performed in compliance with the Massachusetts Stream Crossing Standards by consisting of a span or embedded culvert in which, at a minimum, the bottom of a span structure or the upper surface of an embedded culvert is above the elevation of the top of the bank, and the structure spans the channel width by a minimum of 1.2 times the bankfull width. This presumption is rebuttable and may be overcome by the submittal of credible evidence from a competent source. Notwithstanding the requirement of 310 CMR 10.54(4)(a)5., the impact on bank caused by the installation of a stream crossing is exempt from the requirement to perform a habitat evaluation in accordance with the procedures contained in 310 CMR 10.60.*

The Project has been designed to address the general performance standards for Bank resources. All impacts to Bank resources have been reduced to the greatest extent practicable and where impacts are unavoidable, Bank resources would be stabilized and restored following construction such that the Project would not impair the long-term stability of the bank. The Project would relocate portions of the banks of Stream S6 and Stream S1 via vegetated swales constructed to relocate stream flow, mitigating the loss of bank. The water carrying capacity of the existing channel S1, within the Bank, would increase as the replacement culvert would have a larger cross-sectional area than the double-barreled culvert currently in place. The replacement culvert would be embedded with the upper surface above the elevation of top of bank and hydrologic analysis of the stream indicates that the proposed culvert is appropriately sized for normal and storm flow. A portion of existing channel S6 would be relocated south and continue to provide intermittent hydrologic connection between Wetland W1 and Stream S1.

Impacts to ground water and surface water quality would be minimized through the use of construction BMPs including erosion and sediment control measures, which are shown in the Project Plans in Attachment B.

The existing Bank of Stream S6 shows evidence of use as a stormwater conveyance channel that has been excavated. It does not currently provide breeding habitat, escape cover, or food for fisheries. The existing Bank of Stream S1 provides limited breeding habitat, escape cover, and food for fisheries, as the stream is bordered by upland forest habitat, with limited herbaceous vegetation. While impacts to Bank resources exceed 50 feet, installation of a stream crossing is exempt from the requirement to perform a habitat evaluation.

Stream Crossing Standards

The Project involves replacing an existing double barrel culvert with a single metal corrugated culvert to accommodate the widening of the haul road. The Project was designed to meet the Massachusetts Stream Crossing Standards to the maximum extent practicable, as required for replacement crossings. The General Provisions for stream crossing replacements as stated in 310 CMR 10.53(8): *Any person proposing the*

replacement of an existing stream crossing shall demonstrate to the Issuing Authority that the impacts of the crossing have been avoided where possible, and when not possible have been minimized and that mitigation measures have been provided to contribute to the protection of the interests identified in M.G.L. c. 131, § 40. An applicant will be presumed to have made this showing if the project is designed as follows: (a) If the project includes replacement of an existing non-tidal crossing, the applicant demonstrates to the satisfaction of the Issuing Authority that the crossing complies with the Massachusetts Stream Crossing Standards to the maximum extent practicable. At a minimum, in evaluating the potential to comply with the standards to the maximum extent practicable the applicant shall consider site constraints in meeting the standard, undesirable effects of risk in meeting the standard and the environmental benefit of meeting the standard compared to the cost by evaluating the following: The potential for downstream flooding; Upstream and downstream habitat (in-stream habitat, wetlands); Potential for erosion and head-cutting; Stream stability; Habitat fragmentation caused by the crossing; The amount of stream mileage made accessible by the improvements; Storm flow conveyance; Engineering design constraints specific to the crossing; Hydrologic constraints specific to the crossing; Impacts to wetlands that would occur by improving the crossing; Potential to affect property and infrastructure, and Cost of replacement.

The Project has been designed to comply with the Massachusetts Stream Crossing Standards to the maximum extent practicable. Existing conditions do not produce downstream flooding and the culvert replacement would not change the potential for flooding. The existing double barrel culvert currently blocks the movement of debris at the inlet and is perched at the outlet with a plunge pool, causing aquatic habitat fragmentation. The replacement culvert would be an embedded 60-inch corrugated metal pipe which would improve flow conditions, eliminate the plunge pool at the outlet, and provide aquatic habit continuity. The larger replacement culvert will increase the hydraulic capacity of the crossing and will further reduce potential for erosion. The replacement culvert has been designed to accommodate storm events and would provide appropriate storm flow conveyance.

Land Under Waterbodies and Waterways

The general performance standard set forth in 301 CMR 10.56(4) are; *(a) Where the presumption set forth in 310 CMR 10.56(3) is not overcome, any proposed work within Land under Water Bodies and Waterways shall not impair the following: 1. The water carrying capacity within the defined channel, which is provided by said land in conjunction with the banks; 2. Ground and surface water quality; 3. The capacity of said land to provide breeding habitat, escape cover and food for fisheries; and 4. The capacity of said land to provide important wildlife habitat functions. A project or projects on a single lot, for which Notice(s) of intent is filed on or after November 1, 1987, that (cumulatively) alter(s) up to 10% or 5,000 square feet (whichever is less) of land in this resource area found to be significant to the protection of wildlife habitat, shall not be deemed to impair its capacity to provide important wildlife habitat functions. Work on a stream crossing shall be presumed to meet the performance standard set forth in 310 CMR 10.56(4)(a) provided the work is performed in compliance with the Massachusetts Stream Crossing Standards by consisting of a span or embedded culvert in which, at a minimum, the bottom of a span structure or the upper surface of an embedded culvert is above the elevation of the top of the bank, and the structure spans the channel width by a minimum of 1.2 times the bankfull width. This presumption is rebuttable and may be overcome by the submittal of credible evidence from a competent source. Notwithstanding the requirements of 310 CMR 10.56(4)(a)4., the impact on Land under Water Bodies and Waterways caused by the installation of a stream crossing is exempt from the requirement to perform a habitat evaluation in accordance with the procedures established under 310 CMR 10.60.*

The Project has been designed to address and comply with general performance standards for LUWW. The Project would increase the water carrying capacity of the defined channel as the replacement culvert would have a larger cross-sectional area than the double-barreled culvert currently in place. Impacts to ground water and surface water quality would be minimized through the use of construction BMPs including erosion and sediment control measures, which are shown in the Project plans in Attachment B. The existing LUWW of Stream S6 shows evidence of use as a stormwater conveyance channel that has been excavated

and does not currently provide breeding habitat, escape cover, or food for fisheries. The existing LUWW of Stream S1 provides limited breeding habitat, escape cover, and food for fisheries. Fish were observed in the stream during the October field investigations. The culvert replacement will improve access to breeding habitat, escape cover, and food for fisheries as the embedded single barrel culvert will better allow fish passage by eliminating debris catching on the double barrel culvert and eliminating the plunge pool at the culvert exit. The replacement culvert would be embedded with the upper surface above the elevation of top of bank and hydrologic analysis of the stream indicates that the proposed culvert is appropriately sized for normal and storm flow.

Riverfront Area

The general performance standards for riverfront area set forth in 301 CMR 10.58(4) are: *Where the presumption set forth in 310 CMR 10.58(3) is not overcome, the applicant shall prove by a preponderance of the evidence that there are no practicable and substantially equivalent economic alternatives to the proposed project with less adverse effects on the interests identified in M.G.L. c.131 § 40 and that the work, including proposed mitigation, will have no significant adverse impact on the riverfront area to protect the interests identified in M.G.L. c. 131 § 40. In the event that the presumption is partially overcome, the issuing authority shall make a written determination setting forth its grounds in the Order of Conditions and the partial rebuttal shall be taken into account in the application of 310 CMR 10.58 (4)(d)1.a. and c.; the issuing authority shall impose conditions in the Order that contribute to the protection of interests for which the riverfront area is significant.*

The Project was designed to address the performance standards identified in 310 CMR 10.58(4) for the work conducted in Riverfront Area. As demonstrated in the "Alternatives Analysis" section (below), the chosen haul road improvements and stream crossing replacement represents the alternative for which there are no other substantially equivalent economic alternatives to the proposed Project with less adverse effects. The Project also meets performance criteria for other regulated resources and therefore satisfies all performance standards for Riverfront Area.

Abutters

In compliance with WPA Section 10.05(4), no abutter notifications are required for the Project, as the Project is solely within a parcel greater than 50 acres and no abutter lots are located within one hundred feet from the Project area.

Stormwater Management

Runoff generated from non-vegetated surfaces will be collected and managed in accordance with the Massachusetts Stormwater Management Policy and the standards at 310 CMR 10.05(6)(k) in significant improvement to existing conditions. The proposed Project will improve existing conditions within the Project Area by including a stormwater management system that provides groundwater recharge, attenuates peak flows and provides water quality treatment. Full details on the system (including supporting calculations) are included in the accompanying Stormwater Management Report (Attachment D).

Compliance with the 10 stormwater management standards cited in Section 310 CMR 10.05(6)(k) of the WPA Regulations and the Town of Deerfield Stormwater Regulations is evaluated in the the Stormwater Management Report.

Alternatives Analysis

Based upon the presence of Riverfront Area resources in the Project Area, the Project proponent performed an alternatives analysis, as described below.

The improved haul road must conform to MSHA standards in order to use it for heavy vehicle traffic and so the width and grade of the proposed road cannot be altered. ASMG designed the road to minimize

impacts to regulated resources and comply with Massachusetts Stream Crossing Standards to the maximum extent practicable. ASMG proposes to widen the existing road to 60 feet and replace the existing double barrel culvert stream crossing. The chosen alternative utilizes a 60-inch corrugated metal pipe culvert to replace the existing culvert. Alternatives considered and rejected include 1.) installing a span rather than a culvert; 2.) installing a larger culvert; and 3.) routing a new road through a different alignment within the facility. These alternatives were rejected as economically infeasibly; a span and larger culvert both exceed the hydrological requirements of the stream and would create larger disturbance footprints; and routing a new road would have created a much larger disturbance footprint than the selected alternative and would potentially impact additional regulated resources, while still requiring at least one stream crossing.

The chosen alternative represents the least impactful option that satisfies the stream's hydrologic requirements and meets MSHA standards, and although it crosses regulated resources, it is the alternative that minimizes impacts while meeting the Project purpose and need.

Avoidance and Minimization Measures

The expanded haul road has been sited to reduce impacts to wetland resources, LUWW, Inland Bank, and the Riverfront Area to the greatest extent practicable. The Project has been designed to avoid impacts to BVW and the new culvert for the unnamed tributary to the Deerfield River would improve flow conditions. Erosion and sediment control measures will be implemented to minimize temporary impacts to regulated resource areas during the construction phase of the Project. The measures include Best Management Practices (BMPs) specified in guidelines developed by the DEP and the U.S. Environmental Protection Agency (EPA). Proper implementation of the erosion and sedimentation control measures includes:

- Minimize exposed soil areas through sequencing and temporary stabilization;
- Place structures to manage stormwater runoff and erosion; and
- Establish a permanent vegetative cover or other forms of stabilization following construction and as soon as practicable.

Construction Best Management Practices

Construction best management practices to be implemented during construction include temporary stabilization, permanent seeding, and erosion and sedimentation controls. These practices will be initiated as soon as practicable in appropriate areas within the Project area.

Temporary Stabilization

Any areas of exposed soil or stockpiles that will remain inactive for more than 14 days will be surrounded by erosion control devices and covered with polyurethane sheeting or stabilized with mulch.

Permanent Seeding

Upon completion of the Project, all disturbed areas will be seeded with a native seed mix. The site will be stabilized with biodegradable erosion control blankets, with a layer of straw hay and seed underneath. The seed mix will be applied at a rate specified by the manufacturer.

Erosion Control Barriers

Prior to any ground disturbance, an approved erosion control barrier, specifically silt fence and weed-free hay bales, will be installed around the limit of disturbance of the work area. If construction progresses beyond a single day, barriers will be installed around the base of stockpiles and other erosion prone areas. The barriers will be entrenched into the substrate to prevent underflow. If sediment has accumulated to a depth which impairs proper functioning of the barrier, it will be removed by hand or by machinery operating upslope of the barriers. This material will be either reused in the Project Area or disposed of at a suitable

offsite location. Any damaged sections of the barrier will be repaired or replaced immediately upon discovery.

Catch Basin Inlet Protection

The inlets of existing and proposed catch basins will be protected from sediment inflow during the work period by surrounding them with a barrier of staked straw bales or by installing Silt Sacks®. If straw bales are used, a layer of non-woven filter fabric shall be placed beneath the grate of each basin. If sediment has collected behind the barrier or in the Silt Sack® to a point where it impairs proper functioning, it will be removed and will be either reused onsite or disposed of at a suitable offsite location.

Temporary Sediment Traps

Temporary sediment traps will be installed and maintained to control stormwater runoff until uphill areas are stabilized and stormwater system modifications are in place. If sediment accumulates to a depth which impairs proper functioning of the trap, it will be removed and either reused onsite or disposed of at a suitable offsite location.

Diversion Swales

Diversion swales will be constructed to collect runoff from construction areas and convey it to the temporary sediment traps. The temporary diversion swales will remain in place until the sediment trap is no longer required.

Dewatering Filters

If flow conditions are conducive, stormwater runoff may be directed into basins and/or filter bags located in upland, well-vegetated areas.

Summary

The Applicant respectfully requests that the Deerfield Conservation Commission find these measures adequately protective of the interests identified in the WPA and issue an Order of Conditions approving the work described in this NOI and shown on the accompanying plans.

ATTACHMENT B

Project Plans

ATTACHMENT C

Wetland Memorandum

TECHNICAL MEMORANDUM

TO: Mr. Daniel J. Hartman, PE, All States Materials Group

FROM: Eileen Piskura, Kleinfelder Environmental Permitting Lead

CC: Joe Wojnas, P.E., Kleinfelder

DATE: November 17, 2021

SUBJECT: Wetland and Watercourse Delineation Memorandum for the Haul Road Improvements and New Pad Site Project

Kleinfelder Project No.: 20221383.001A

Kleinfelder Inc. (Kleinfelder) has prepared a *Wetland and Watercourse Delineation Memorandum* (memo) as part of the environmental investigation conducted for All States Materials Group (ASMG) in support of planned haul road improvements and new pad site development. The limit of the investigation is defined by the Study Area, as shown on Figure 2. The following memo summarizes this investigation.

BACKGROUND

Kleinfelder delineated wetlands and watercourses along portions of the haul road located on the eastern portion of the ASMG facility located at 901 River Road, Deerfield, MA (Study Area). The Study Area is approximately 25.34 acres within the Town of Deerfield, Franklin County, Massachusetts (MA) and can be located on the United States Geological Survey (USGS) Greenfield, MA 7.5-minute series topographical quadrangle (National Geographic Society, 2013) (Figure 1).

The Study Area is composed primarily of deciduous forest along an active haul road on the east side of the ASMG facility. The Study Area drains to an unnamed tributary (delineated Stream S1) of the Deerfield River and is in the Bear River – Deerfield River basin (HUC12, 010802030502).

One surface water identified by the U.S. Fish & Wildlife Service (USFWS) National Wetlands Inventory (NWI) is located within the Study Area. It is identified as a Riverine Upper Perennial Unconsolidated Bottom Permanently Flooded (R3UBH) stream and is shown on Figure 2 (USFWS, 2018).

The Natural Resources Conservation Service (NRCS) web soil survey indicates ten soil map units located within the Study Area. Five soil map units have been given a hydric soil rating by the NRCS (NRCS, 2018) (Table 1).

Table 1. NRCS Mapped Soils Within the Study Area

Soil Map Unit	Description	Hydric Rating By Map Unit (%)
9A	Birdsall mucky silt loam, 0 to 2 percent slopes	100
131B	Yalesville-Holyoke complex, 3 to 8 percent slopes, rocky	5
223B	Scio silt loam, 3 to 8 percent slopes	10
235F	Poocham silt loam, 25 to 60 percent slopes	0
255C	Windsor loamy sand, 8 to 15 percent slopes	0
258B	Amostown fine sandy loam, 3 to 8 percent slopes	0
397B	Wethersfield very fine sandy loam, 3 to 8 percent slopes	2
397D	Wethersfield very fine sandy loam, 15 to 25 percent slopes	1
601	Pits, quarry	0
656	Udorthents-Urban land complex	0

Source: USDA NRCS WebSoil Survey, accessed at: https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx

METHODOLOGY

On October 28, 2021, Kleinfelder wetland scientist Emma Mrowka and environmental scientist Olivia Footit performed an investigation to identify and delineate wetlands and watercourses potentially regulated under the Massachusetts Wetland Protection Act and the federal Clean Water Act (MA Wetland Protection Act, 1995; Clean Water Act of 1972).

Kleinfelder used the Antecedent Precipitation Tool (U.S. Army Corps of Engineers, 2019) to compare precipitation and temperatures during the field efforts against the 30-year average.

To identify and delineate wetlands, Kleinfelder followed routine wetland determination methodology, as described in the U.S. Army Corps of Engineers (USACE) *Wetland Delineation Manual, Technical Report Y-87-1* (Environmental Laboratory, 1987) using wetland criteria in the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region (Version 2.0)* (USACE, 2012), and *Delineating Bordering Vegetated Wetlands Under the Massachusetts Wetlands Protection Act* (MA Department of Environmental Protection [MassDEP], 1995) (BVW Manual). Wetland indicator status for all observed vegetation was noted based upon the National Wetland Plant List version 3.5 (USACE 2020). To identify and delineate watercourses, Kleinfelder performed an evaluation based on typical watercourse characteristics such as defined streambed and streambanks, exclusion of terrestrial vegetation, hydrologically-sorted substrate material, and the presence of an ordinary high water mark (OHWM). Stream categorization follows flow regimes (perennial, intermittent, or ephemeral) defined by the USACE.

Wetlands and watercourses were classified following *Classification of Wetlands and Deepwater Habitats of the United States* (FGDC 2013). Kleinfelder mapped aquatic resource boundaries and sample points with a Global Positioning System (GPS) unit and photographed resources and representative upland areas.

RESULTS

Weather conditions during the field delineation were sunny with temperatures around 50 degrees Fahrenheit. **Table 1** details the normal climate condition exhibited during the delineation.

Table 1. Precipitation Analysis

Date	Previous 48 hr. Precipitation (in.) [1]	High Temp (°F)[1]	APT Condition[2]	Season[2]	Palmer Drought Severity Index[2]
10/28/21	0.91	55	Normal Condition	Wet Season	Extreme Wetness

[1]Data taken from the Greenfield Number 3 Station. [2]Output from USACE Antecedent Precipitation Tool (v1.0.19).

Two palustrine forested (PFO) wetlands, two perennial streams, three intermittent streams, and two ephemeral streams were identified and delineated within the Study Area (Figure 2). USACE Wetland Determination Data Forms, MassDEP Bordering Vegetated Wetland Forms, and photographs are provided in Appendices A and B.

- **Wetland W1 (PFO)**: This 0.47 acre PFO depressional wetland is fed by hillside seeps and stormwater runoff from a culvert adjacent to the haul road. The primary indicators of hydrology observed were Surface Water (A1), High Water Table (A2), Saturation (A3), and Water-Stained Leaves (B9). Secondary indicators of wetland hydrology include Drainage Patterns (B10), Geomorphic Position (D3), and FAC-Neutral Test (D5). The dominant tree species were *Acer rubrum* and *Quercus rubrum.* The dominant shrub species were *Carpinus caroliniana* and *Ulmus americana,* and the dominant herbaceous species was *Osmunda claytoniana.* Soils met the criteria for hydric soil field indicator Depleted Matrix (F3).
- **Wetland W2 (PFO)**: This 0.02 acre PFO depressional wetland is located on an old forest road and drains to stream S7. The primary indicators of hydrology observed were Surface Water (A1), High Water Table (A2), Saturation (A3), and Water-Stained Leaves (B9). Secondary indicators of wetland hydrology include Drainage Patterns (B10), Geomorphic Position (D3), and FAC-Neutral Test (D5). The dominant tree species found within this wetland was *Tsuga canadensis.* The dominant shrub was *Lindera benzoin*, and the dominant herbaceous species was *Onclea sensibilis. S*oils met the criteria for hydric soil field indicator Depleted Matrix (F3).
- **Stream S1 (R3UB1)**: This perennial stream flows north through the study area, crossing under the haul road. The Cowardin classification of S1 is Riverine Upper Perennial Unconsolidated Bottom Cobble-Gravel (R3UB1). Flowing water was present in the channel, the average OHWM was eight feet, and the average top of bank width was ten feet. Primary channel bed substrate consisted of cobble and gravel. Stream S1 is a tributary to Deerfield River, located off site.
- **Stream S2 (R3UB1)**: This perennial stream is an approximately eight-foot-long watercourse from an outfall culvert into S1. Flowing water was present in the channel, the average OHWM was five feet, and the average top of bank width was five feet. Primary channel bed substrate consisted of cobble, gravel, and silt.

- **Stream S3 (R6SB3)**: This ephemeral stream originates at a hillside seep and flows into S1. The Cowardin classification of S3 is Riverine Ephemeral Streambed Cobble-Gravel (R6SB3). Non-continuous flow was present in the channel, the average OHWM was one foot, and the average top of bank width was three feet. Primary channel bed substrate consisted of cobble, gravel, and silt.
- **Stream S4 (R6SB3)**: This ephemeral stream originates from a hillside and flows into S1 from the west. Non-continuous flow was present in the channel, the average OHWM was one foot, and the average top of bank width was three feet. Primary channel bed substrate consisted of gravel, silt, and clay.
- **Stream S5 (R4SB3)**: This intermittent stream originates at a hillside seep and flows west. Outside of the study area the stream dissipates to a wetland, then re-channelizes as stream S7. The Cowardin classification of S5 is Riverine Intermittent Streambed Cobble-Gravel (R4SB3). Flowing water was present in the channel, the average OHWM was 1.5 feet, and the average top of bank width was three feet. Primary channel bed substrate consisted of gravel, clay, and silt.
- **Stream S6 (R4SB3)**: This intermittent stream originates from wetland W1 and additionally receives flow from a stormwater outlet along the haul road. S6 flows into Stream S1 at the S1 haul road crossing inlet. Non-continuous flow was present in the channel, the average OHWM was three feet, and the average top of bank width was five feet. Primary channel bed substrate consisted of cobble and gravel.
- **Stream S7 (R4SB3)**: This intermittent stream originates from S5 and an offsite wetland and flows into Stream S1. S7 flows through a portion of Wetland W2 and contains a braided channel, S7A. Non-continuous flow was present in the channel, the average OHWM was two feet, and the average top of bank width was three feet. Primary channel bed substrate consisted of cobble and gravel.

SUMMARY

Kleinfelder conducted wetland and watercourse investigations on October 28, 2021 for ASMG in support of planned haul road improvements and new pad site development within the Town of Deerfield, Franklin County, Massachusetts. Two PFO wetlands, two perennial streams, three intermittent stream, and two ephemeral streams were identified and delineated within the Study Area.

LIMITATIONS

- This investigation was limited to the Study Area shown herein. Kleinfelder did not examine areas outside of the Study Area, thus no information is provided regarding the presence or absence of regulated wetlands and watercourses outside of the Study Area.
- This investigation was conducted on the date indicated. Human-induced or natural changes at the Study Area may occur after this date which may cause changes in the presence and extent of regulated wetlands and watercourses.
- The findings of the Study Area investigation completed by Kleinfelder were limited to the date of the investigation, and this report reflects the conditions at that time. In circumstances where a site has been developed prior to the Study Area investigation, the presence or absence of pre-construction wetlands or watercourses and their estimated extents within the Study Area is beyond the scope of this report.

REFERENCES

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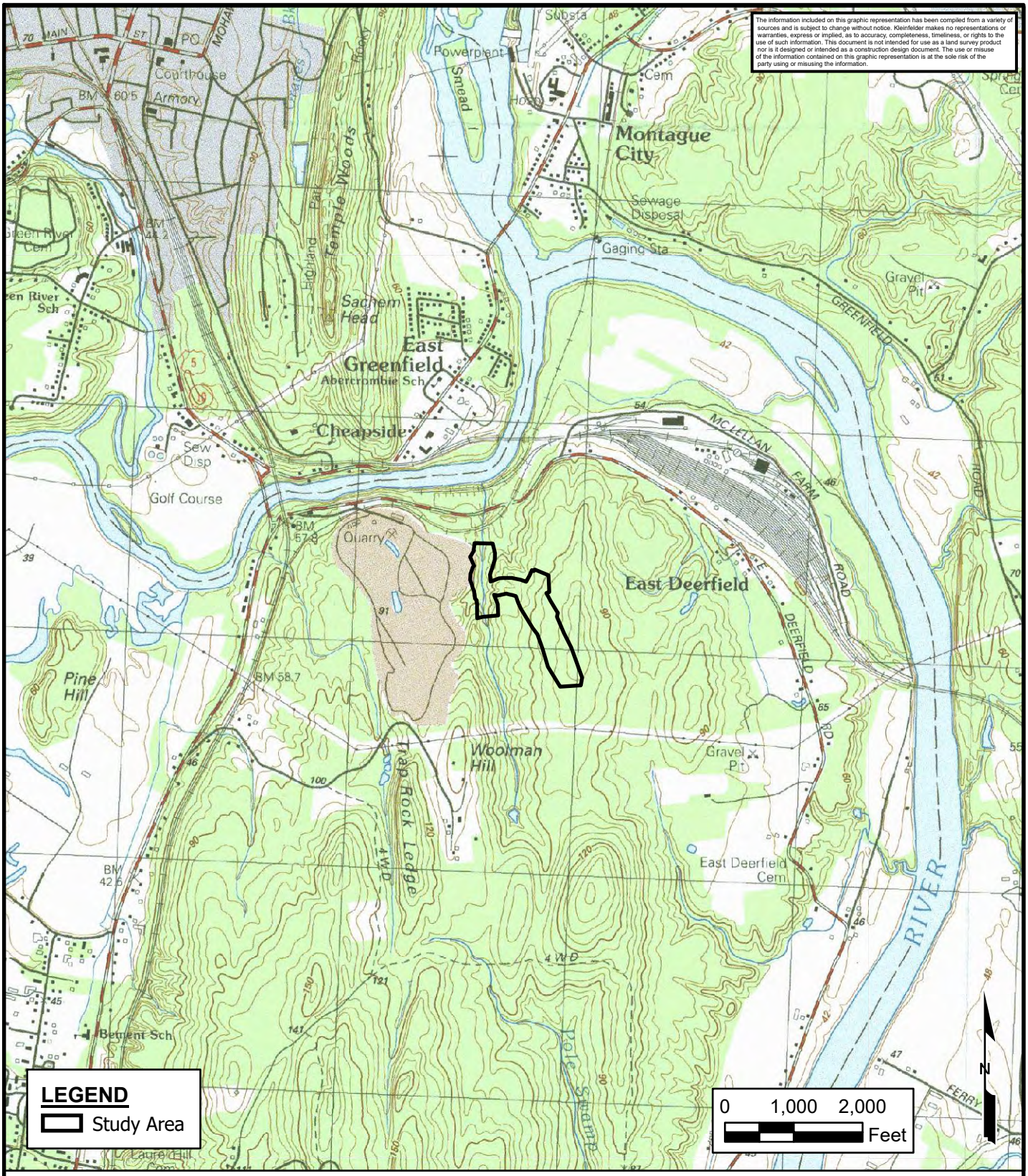
FIGURES



USGS Quad Name: Greenfield, MA
Town of Deerfield, Franklin County, Massachusetts
Center of Page: 72°34'43"W 42°33'58"N

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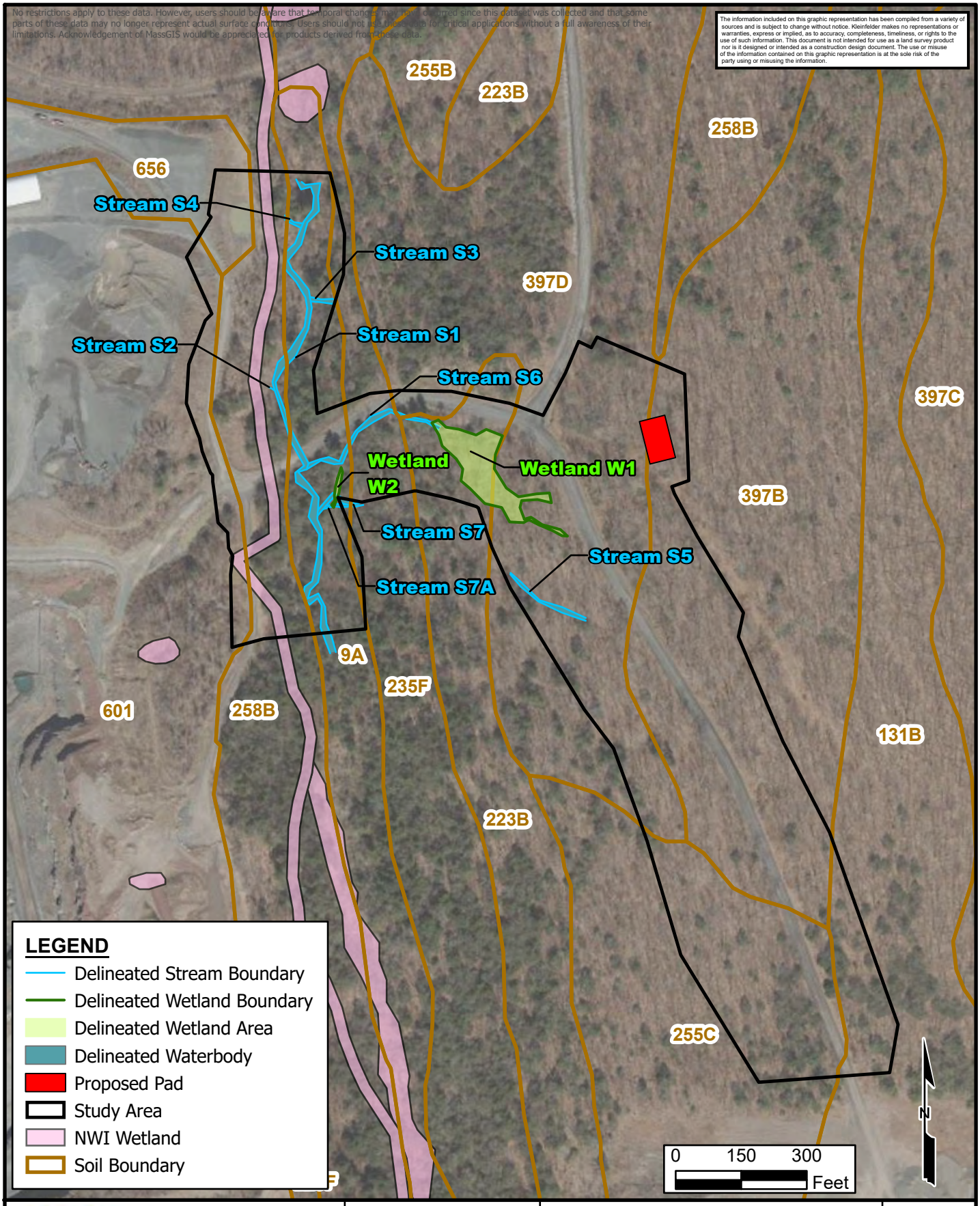
PROJECT NO.	20221383.001A
CREATED:	11/12/2021
CREATED BY:	ADAmario
CHECKED BY:	EMrowka
FILE NAME:	All_States_Materials_Online_Map

Location Map

All States Materials Group
Haul Road Improvements
901 River Road
Deerfield, Massachusetts

FIGURE
1

Date: 11/12/2021 User: ADAmario Path: \\azrgisstorp01\GIS_Projects\Client\All_States_Materials\River_Rd_Project\MAPS\All_States_Materials_Online_MapAll_States_Materials_Online_Map.aprx



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PROJECT NO.	20221383.001A
CREATED:	11/16/2021
CREATED BY:	ADAmario
CHECKED BY:	EMrowka
FILE NAME:	All_States_Materials_Online_Map

Wetland Delineation

All States Materials Group
Haul Road Improvements
901 River Road
Deerfield, Massachusetts

FIGURE
2

APPENDIX A
FIELD DATA FORMS

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: ASMG 901 River Road City/County: Deerfield / Franklin Sampling Date: 10/28/2021

Applicant/Owner: All States Materials Group State: MA Sampling Point: SP1

Investigator(s): Emma Mrowka, Olivia Footit Section, Township, Range: NA

Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): none Slope (%): 5

Subregion (LRR or MLRA): LRR R MLRA 145 Lat: 42.566527 Long: -72.577190 Datum: WGS 84

Soil Map Unit Name: Wethersfield very fine sandy loam, 15 to 25 percent slopes NWI classification: not mapped

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 within a Wetland?** Yes _____ No X
Hydric Soil Present?	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.)

This upland sample point is representative of a forested hillslope, located in the area of the proposed pad.

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:

No indicators of wetland hydrology were present at the time of the investigation.

VEGETATION – Use scientific names of plants.

Sampling Point: SP1

Tree Stratum (Plot size: 30 feet)	Absolute % Cover	Dominant Species?	Indicator Status
1. Quercus rubra	25	Yes	FACU
2. Acer rubrum	20	Yes	FAC
3. Betula alleghaniensis	5	No	FAC
4.			
5.			
6.			
7.			
	50	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 feet)			
1. Hamamelis virginiana	5	Yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
	5	= Total Cover	
Herb Stratum (Plot size: 5 feet)			
1. Parathelyptris noveboracensis	15	Yes	FAC
2. Kalmia latifolla	10	Yes	FACU
3. Viburnum acerifolium	5	No	UPL
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	30	= Total Cover	
Woody Vine Stratum (Plot size: 30 feet)			
1. NA			
2.			
3.			
4.			
		= 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: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 40% (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

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.)

Vegetation did not meet the criteria to be considered hydrophytic at the time of the investigation.

SOIL

Sampling Point: SP1

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
0-8	10YR 3/2	100					SIL	
8-14	10YR 4/6	100					SCL	

[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) (**LRR R, MLRA 149B**)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ 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)

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**)
- ___ Dark Surface (S7) (**LRR K, L, M**)
- ___ 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 (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type:_____

Depth (inches):_____

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

Remarks:

The soil profile does not meet the criteria for any of the hydric soil indicators.

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: ASMG 901 River Road City/County: Deerfield / Franklin Sampling Date: 10/28/2021

Applicant/Owner: All States Materials Group State: MA Sampling Point: SP2

Investigator(s): Emma Mrowka, Olivia Footit Section, Township, Range: NA

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

Subregion (LRR or MLRA): LRR R MLRA 145 Lat: 42.562772 Long: -72.576147 Datum: WGS 84

Soil Map Unit Name: Windsor loamy sand, 8 to 15 percent slopes NWI classification: not mapped

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 within a Wetland?** Yes _____ No X
Hydric Soil Present?	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.)

This upland sample point is representative of the forested hillslope located along the haul road.

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:

No indicators of wetland hydrology were present at the time of the investigation.

VEGETATION – Use scientific names of plants.

Sampling Point: SP2

Tree Stratum (Plot size: 30 feet)	Absolute % Cover	Dominant Species?	Indicator Status
1. Quercus rubra	60	Yes	FACU
2. Acer rubrum	20	Yes	FAC
3. Tsuga canadensis	5	No	FACU
4.			
5.			
6.			
7.			
	85	= Total Cover	

Sapling/Shrub Stratum (Plot size: 15 feet)			
1. Hamamelis virginiana	5	Yes	FACU
2. Quercus montana	5	Yes	UPL
3.			
4.			
5.			
6.			
7.			
	10	= Total Cover	

Herb Stratum (Plot size: 5 feet)			
1. Acer pensylvanicum	5	Yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	5	= Total Cover	

Woody Vine Stratum (Plot size: 30 feet)			
1. NA			
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: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 20% (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

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 X No ____

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

Vegetation did not meet the criteria to be considered hydrophytic at the time of the investigation.

SOIL

Sampling Point: SP2

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-3	10YR 3/2	100					SIL	
3-12	10YR 4/6	100					SCL	

[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) (**LRR R, MLRA 149B**)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ 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)

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**)
- ___ Dark Surface (S7) (**LRR K, L, M**)
- ___ 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 (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type:_____

Depth (inches):_____

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

Remarks:

The soil profile does not meet the criteria for any of the hydric soil indicators.

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: ASMG 901 River Road City/County: Deerfield / Franklin Sampling Date: 10/28/2021

Applicant/Owner: All States Materials Group State: MA Sampling Point: SP3

Investigator(s): Emma Mrowka, Olivia Footit Section, Township, Range: NA

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

Subregion (LRR or MLRA): LRR R MLRA 145 Lat: 42.565866 Long: -72.578317 Datum: WGS 84

Soil Map Unit Name: Wethersfield very fine sandy loam, 15 to 25 percent slopes NWI classification: not mapped

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 within a Wetland?** **Yes** X **No** _____
Hydric Soil Present?	Yes X	No _____	
Wetland Hydrology Present?	Yes X	No _____	If yes, optional Wetland Site ID: W1

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

This sample point is representative of W1, a PFO wetland which drains to intermittent stream S6.

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)
- X 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): 1
Water Table Present?	Yes X	No _____	Depth (inches): 10
Saturation Present? (includes capillary fringe)	Yes X	No _____	Depth (inches): 10

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

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

Remarks:

Multiple indicators of wetland hydrology were present at the time of the investigation.

VEGETATION – Use scientific names of plants.

Sampling Point: SP3

Tree Stratum (Plot size: 30 feet)	Absolute % Cover	Dominant Species?	Indicator Status
1. Acer rubrum	20	Yes	FAC
2. Quercus rubrum	10	Yes	FACU
3. Carpinus caroliniana	5	No	FAC
4.			
5.			
6.			
7.			
	35	= Total Cover	

Sapling/Shrub Stratum (Plot size: 15 feet)			
1. Carpinus caroliniana	5	Yes	FAC
2. Ulmus americana	5	Yes	FACW
3.			
4.			
5.			
6.			
7.			
	10	= Total Cover	

Herb Stratum (Plot size: 5 feet)			
1. Osmunda claytoniana	30	Yes	FAC
2. Matteuccia struthiopteris	5	No	FAC
3. Ulmus americana	5	No	FACW
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	40	= Total Cover	

Woody Vine Stratum (Plot size: 30 feet)			
1. NA			
2.			
3.			
4.			
		= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 80% (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

X 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 X No ____

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

The parameters for hydrophytic vegetation were met at the time of the investigation.

SOIL

Sampling Point: SP3

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
0-18	10YR 4/2	90	10YR 4/6	10	C	M	CL	

[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) (**LRR R, MLRA 149B**)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

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**)
- ___ Dark Surface (S7) (**LRR K, L, M**)
- ___ 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 (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type:_____

Depth (inches):_____

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

Remarks:

The parameters for hydric soil were met at the time of the investigation.

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: ASMG 901 River Road City/County: Deerfield / Franklin Sampling Date: 10/28/2021

Applicant/Owner: All States Materials Group State: MA Sampling Point: SP4

Investigator(s): Emma Mrowka, Olivia Footit Section, Township, Range: NA

Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): none Slope (%): 4

Subregion (LRR or MLRA): LRR R MLRA 145 Lat: 42.565752 Long: -72.578408 Datum: WGS 84

Soil Map Unit Name: Wethersfield very fine sandy loam, 15 to 25 percent slopes NWI classification: not mapped

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 within a Wetland?** **Yes** _____ **No** X
Hydric Soil Present?	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.)

This sample point serves as a representation of the upland areas adjacent to W01. The sample point is located on a forested hillslope.

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:

No indicators of wetland hydrology were present at the time of the investigation.

VEGETATION – Use scientific names of plants.

Sampling Point: SP4

Tree Stratum (Plot size: 30 feet)	Absolute % Cover	Dominant Species?	Indicator Status
1. Quercus rubra	10	Yes	FACU
2. Acer rubrum	10	Yes	FAC
3. Populus grandidentata	5	Yes	FACU
4.			
5.			
6.			
7.			
	25	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 feet)			
1. Hamamelis virginiana	5	Yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
	5	= Total Cover	
Herb Stratum (Plot size: 5 feet)			
1. Polystichum acrostichoides	10	Yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	10	= Total Cover	
Woody Vine Stratum (Plot size: 30 feet)			
1. NA			
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: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 20% (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

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.)

Vegetation did not meet the criteria to be considered hydrophytic at the time of the investigation.

SOIL

Sampling Point: SP4

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	2.5Y 4/4	100					CL	
6-12	2.5Y 4/3	100					CL	

[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) (**LRR R, MLRA 149B**)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ 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)

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**)
- ___ Dark Surface (S7) (**LRR K, L, M**)
- ___ 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 (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type:_____

Depth (inches):_____

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

Remarks:

The soil profile does not meet the criteria for any of the hydric soil indicators.

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: ASMG 901 River Road City/County: Deerfield / Franklin Sampling Date: 10/28/2021

Applicant/Owner: All States Materials Group State: MA Sampling Point: SP5

Investigator(s): Emma Mrowka, Olivia Footit Section, Township, Range: NA

Landform (hillslope, terrace, etc.): depression Local relief (concave, convex, none): concave Slope (%): 3

Subregion (LRR or MLRA): LRR R MLRA 145 Lat: 42.566012 Long: -72.579829 Datum: WGS 84

Soil Map Unit Name: Birdsall mucky silt loam, 0 to 2 percent slopes NWI classification: not mapped

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 within a Wetland?** Yes X No _____
Hydric Soil Present?	Yes X	No _____	If yes, optional Wetland Site ID: W2
Wetland Hydrology Present?	Yes X	No _____	

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

This sample point is representative of W2, a PFO wetland. The wetland is located in a depression on an old roadway; drains to stream S7.

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)
- X 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): 1
Water Table Present?	Yes X	No _____	Depth (inches): 8
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:

Multiple indicators of wetland hydrology were present at the time of the investigation.

VEGETATION – Use scientific names of plants.

Sampling Point: SP5

Tree Stratum (Plot size: 30 feet)	Absolute % Cover	Dominant Species?	Indicator Status
1. Tsuga canadensis	5	Yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
	5 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 feet)			
1. Lindera benzoin	5	Yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
	5 = Total Cover		
Herb Stratum (Plot size: 5 feet)			
1. Onoclea sensibilis	5	Yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	5 = Total Cover		
Woody Vine Stratum (Plot size: 30 feet)			
1. NA			
2.			
3.			
4.			
	= 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: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 66% (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

X 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 X No ___

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

The parameters for hydrophytic vegetation were met at the time of the investigation.

SOIL

Sampling Point: SP5

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-8	10YR 4/1	90	10YR 5/8	10	C	M, PL	CL	
8-16	2.5Y 4/2	90	10YR 5/8	10	C	M, PL	CL	

[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) (**LRR R, MLRA 149B**)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

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**)
- ___ Dark Surface (S7) (**LRR K, L, M**)
- ___ 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 (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type:_____

Depth (inches):_____

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

Remarks:

The parameters for hydric soil were met at the time of the investigation.

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: ASMG 901 River Road City/County: Deerfield / Franklin Sampling Date: 10/28/2021

Applicant/Owner: All States Materials Group State: MA Sampling Point: SP6

Investigator(s): Emma Mrowka, Olivia Footit Section, Township, Range: NA

Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): none Slope (%): 10

Subregion (LRR or MLRA): LRR R MLRA 145 Lat: 42.565992 Long: -72.579892 Datum: WGS 84

Soil Map Unit Name: Birdsall mucky silt loam, 0 to 2 percent slopes NWI classification: not mapped

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 within a Wetland?** Yes _____ No X
Hydric Soil Present?	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.)

This upland sample point is representative of a forested hillslope, located between S01 and W02.

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:

No indicators of wetland hydrology were present at the time of the investigation.

VEGETATION – Use scientific names of plants.

Sampling Point: SP6

Tree Stratum (Plot size: 30 feet)	Absolute % Cover	Dominant Species?	Indicator Status
1. Tsuga canadensis	60	Yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
	60 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 feet)			
1. NA			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
Herb Stratum (Plot size: 5 feet)			
1. Polystichum acrostichoides	5	Yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	5 = Total Cover		
Woody Vine Stratum (Plot size: 30 feet)			
1. NA			
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% (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

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.)

Vegetation did not meet the criteria to be considered hydrophytic at the time of the investigation.

SOIL

Sampling Point: SP6

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
0-8	10YR 3/2	100					SIL	
8-20	2.5Y 4/3	100					CL	

[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) (**LRR R, MLRA 149B**)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ 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)

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**)
- ___ Dark Surface (S7) (**LRR K, L, M**)
- ___ 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 (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type:_____

Depth (inches):_____

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

Remarks:

The soil profile does not meet the criteria for any of the hydric soil indicators.

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

Applicant: All States Materials Group Prepared by: Emma Mrowka, Olivia Footit Project location: Deerfield, MA 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: SP1		Transect Number:	Date of Delineation: 10/28/2021
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*
Tree				
Red oak/*Quercus rubra*	25%	50%	Yes	FACU
Red maple/*Acer rubrum*	20%	40%	Yes	FAC *
Yellow birch/*Betula alleghaniensis*	5%	10%	No	FAC *
Sapling/Shrub				
Witch hazel/*Hamamelis virginiana*	5%	100%	Yes	FACU
Ground Cover				
New York fern/*Parathelypteris noveboracensis*	15%	50%	Yes	FAC *
Mountain laurel/*Kalmia latifolla*	10%	33%	Yes	FACU
Maple leaf viburnum/*Viburnum acerifolium*	5%	17%	No	UPL

* *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? yes (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: NRCS Web Soil Survey
map number: Online
soil type mapped: Wethersfield very fine sandy loam, 15 to 25 percent slopes
hydric soil inclusions: Wilbraham, 1% hydric rating

Are field observations consistent with soil survey? yes (no)
Remarks:
Soils are natural with horizon development, but are not similar in profile to Wethersfield

2. Soil Description

Horizon	Depth	Matrix Color	Mottles Color
A	0-8	10YR 3/2	
B	8-14	10YR 4/6	

Remarks:
Silt loam A horizon over silty clay loam B horizon

3. Other:

Conclusion: Is soil hydric? yes (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	____	X
Wetland hydrology present:		
Hydric soil present	____	X
Other indicators of hydrology present	____	X
Sample location is in a BVW	____	X

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: All States Materials Group Prepared by: Emma Mrowka, Olivia Footit Project location: Deerfield, MA 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: SP2		Transect Number:	Date of Delineation: 10/28/2021
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*
Tree				
Red oak/*Quercus rubra*	60%	70.6%	Yes	FACU
Red maple/*Acer rubrum*	20%	23.5%	Yes	FAC *
Eastern hemlock/*Tsuga canadensis*	5%	5.9%	No	FACU *
Sapling/Shrub				
Witch hazel/*Hamamelis virginiana*	5%	50%	Yes	FACU
Red oak/Quercus rubra	5%	50%	Yes	FACU
Ground Cover				
Striped maple/*Acer pensylvanicum*	5%	100%	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: 1 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? yes (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: NRCS Web Soil Survey
map number: Online
soil type mapped: Windsor loamy sand, 8 to 15 percent slopes
hydric soil inclusions: none, 0% hydric rating

Are field observations consistent with soil survey? yes (no)
Remarks:
Soils are natural with horizon development, but are not similar in profile to Windsor

2. Soil Description

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

Remarks:
Silt loam A horizon over silty clay loam B horizon

3. Other:

Conclusion: Is soil hydric? yes (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	____	X
Wetland hydrology present:		
Hydric soil present	____	X
Other indicators of hydrology present	____	X
Sample location is in a BVW	____	X

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: All States Materials Group Prepared by: Emma Mrowka, Olivia Footit Project location: Deerfield, MA 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: SP3		Transect Number:	Date of Delineation: 10/28/2021
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*
Tree				
Red oak/*Quercus rubra*	15%	42.9%	Yes	FACU
Red maple/*Acer rubrum*	15%	42.9%	Yes	FAC *
American hornbeam/*Carpinus caroliniana*	5%	*14.2%*	*No*	*FAC *
Sapling/Shrub				
American hornbeam/*Carpinus caroliniana*	10%	100%	Yes	FAC *
Ground Cover				
Interrupted fern/*Osmunda claytoniana*	30%	66.7%	Yes	FAC *
Speckled alder/*Alnus incana*	5%	11.1%	No	FACW *
Ostrich fern/*Matteuccia struthiopteris*	5%	11.1%	No	FAC *
American elm/*Ulmus americana*	5%	11.1%	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: 3 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) 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: NRCS Web Soil Survey
map number: Online
soil type mapped: Wethersfield very fine sandy loam, 15 to 25 percent slopes
hydric soil inclusions: Wilbraham, 1% hydric rating

Are field observations consistent with soil survey? yes (no)
Remarks:
Sample point is located within a depression that receives water from hillside seeps and surface runoff. Soil profile is not similar to Wethersfield.

2. Soil Description

Horizon	Depth	Matrix Color	Mottles Color
A	0-18	10YR 4/2	10YR 4/6

Remarks:
soil texture is a clay loam, profile is depleted with redoximorphic features.

3. Other:

Conclusion: Is soil hydric? (yes) no

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

- [X] Site Inundated: some surface water in areas from recent rain and runoff accumulation
- [X] Depth to free water in observation hole: 10"
- [X] Depth to soil saturation in observation hole: 10"
- [ ] Water marks: _____
- [ ] Drift lines: _____
- [ ] Sediment Deposits: _____
- [X] Drainage patterns in BVW: surface water drainage patterns present
- [ ] Oxidized rhizospheres: _____
- [X] Water-stained leaves: water stained leaves present
- [ ] 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	X	
Wetland hydrology present:		
Hydric soil present	X	
Other indicators of hydrology present	X	
Sample location is in a BVW	X	

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: All States Materials Group Prepared by: Emma Mrowka, Olivia Footit Project location: Deerfield, MA 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: SP4		Transect Number:	Date of Delineation: 10/28/2021
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*
Tree				
Red oak/*Quercus rubra*	10%	40%	Yes	FACU
Red maple/*Acer rubrum*	10%	40%	Yes	FAC *
Big-tooth aspen/*Populus grandidentata*	5%	20%	Yes	FACU
Sapling/Shrub				
Witch hazel/*Hamamelis virginiana*	10%	100%	Yes	FACU
Ground Cover				
Christmas fern/*Polystichum acrostichoides*	10%	100%	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: 1 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? yes (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: NRCS Web Soil Survey
map number: Online
soil type mapped: Wethersfield very fine sandy loam, 15 to 25 percent slopes
hydric soil inclusions: Wilbraham, 1% hydric rating

Are field observations consistent with soil survey? yes (no)
Remarks:
Soils are natural with horizon development, but are not similar in profile to Windsor

2. Soil Description

Horizon	Depth	Matrix Color	Mottles Color
A	0-6	2.5Y 4/4	
B	6-12	2.5Y 4/3	

Remarks:
Clay loam A horizon over clay loam B horizon

3. Other:

Conclusion: Is soil hydric? yes (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	____	X
Wetland hydrology present:		
Hydric soil present	____	X
Other indicators of hydrology present	____	X
Sample location is in a BVW	____	X

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: All States Materials Group Prepared by: Emma Mrowka, Olivia Footit Project location: Deerfield, MA 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: SP5		Transect Number:	Date of Delineation: 10/28/2021
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*
Tree				
Eastern hemlock/*Tsuga canadensis*	5%	100%	Yes	FACU *
Sapling/Shrub				
Northern spicebush/*Lindera benzoin*	5%	100%	Yes	FAC *
Ground Cover				
Sensitive fern/*Onoclea sensibilis*	5%	100%	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: 3 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) 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: NRCS Web Soil Survey
map number: Online
soil type mapped: Birdsall mucky silt loam, 0 to 2 percent slopes
hydric soil inclusions: 100% hydric rating

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

2. Soil Description

Horizon	Depth	Matrix Color	Mottles Color
A	0-8	10YR 4/1	10YR 5/8
Bg	8-16	2.5Y 4/2	10YR 5/8

Remarks:
clay loam A horizon over clay loam Bg horizon

3. Other:

Conclusion: Is soil hydric? (yes) no

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

- [X] Site Inundated: some surface water in areas from recent rain and runoff accumulation
- [X] Depth to free water in observation hole: 8"
- [X] Depth to soil saturation in observation hole: 0"
- [ ] Water marks: _____
- [ ] Drift lines: _____
- [ ] Sediment Deposits: _____
- [X] Drainage patterns in BVW: surface water drainage patterns present, flowing to intermittent stream
- [ ] Oxidized rhizospheres: _____
- [X] Water-stained leaves: water stained leaves present
- [ ] 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	X	
Wetland hydrology present:		
Hydric soil present	X	
Other indicators of hydrology present	X	
Sample location is in a BVW	X	

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: All States Materials Group Prepared by: Emma Mrowka, Olivia Footit Project location: Deerfield, MA 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: SP6		Transect Number:	Date of Delineation: 10/28/2021
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*
Tree				
Eastern hemlock/*Tsuga canadensis*	60%	100%	Yes	FACU *
Ground Cover				
Christmas fern/*Polystichum acrostichoides*	5%	100%	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: 1 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) 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: NRCS Web Soil Survey
map number: Online
soil type mapped: Birdsall mucky silt loam, 0 to 2 percent slopes
hydric soil inclusions: 100% hydric rating

Are field observations consistent with soil survey? yes (no)
Remarks:
Sample point is located outside of the floodplain of a perennial stream and soils are not hydric

2. Soil Description

Horizon	Depth	Matrix Color	Mottles Color
A	0-8	10YR 3/2	
B	8-20	2.5Y 4/3	

Remarks:
Silt loam A horizon over clay loam B horizon

3. Other:

Conclusion: Is soil hydric? yes (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	____	X
Wetland hydrology present:		
Hydric soil present	____	X
Other indicators of hydrology present	____	X
Sample location is in a BVW	____	X

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

APPENDIX B
PHOTOGRAPHS

Kleinfelder
Photograph Documentation
Wetlands and Watercourses

Date of Photos:	**Site Name:**	**Site Location:**	**Project #:**
10/28/2021	Haul Road Improvements and New Pad Site	901 River Road, Deerfield, MA	20221383.001A

Photo 1: Stream S1 upstream

Photo 2: Stream S1 culvert inlet

Kleinfelder
Photograph Documentation
Wetlands and Watercourses

Date of Photos:	**Site Name:**	**Site Location:**	**Project #:**
10/28/2021	Haul Road Improvements and New Pad Site	901 River Road, Deerfield, MA	20221383.001A

Photo 3: Stream S1 culvert outlet

Photo 4: Stream S1 downstream

Kleinfelder
Photograph Documentation
Wetlands and Watercourses

Date of Photos:	**Site Name:**	**Site Location:**	**Project #:**
10/28/2021	Haul Road Improvements and New Pad Site	901 River Road, Deerfield, MA	20221383.001A

Photo 5: Stream S1 cross stream

Photo 6: Streams S1 and S2 confluence

Kleinfelder
Photograph Documentation
Wetlands and Watercourses

Date of Photos:	**Site Name:**	**Site Location:**	**Project #:**
10/28/2021	Haul Road Improvements and New Pad Site	901 River Road, Deerfield, MA	20221383.001A

Photo 7: Stream S3 upstream

Photo 8: Stream S3 downstream

Kleinfelder
Photograph Documentation
Wetlands and Watercourses

Date of Photos:	**Site Name:**	**Site Location:**	**Project #:**
10/28/2021	Haul Road Improvements and New Pad Site	901 River Road, Deerfield, MA	20221383.001A

Photo 9: Stream S3 cross stream

Photo 10: Stream S4 upstream

Kleinfelder
Photograph Documentation
Wetlands and Watercourses

Date of Photos:	**Site Name:**	**Site Location:**	**Project #:**
10/28/2021	Haul Road Improvements and New Pad Site	901 River Road, Deerfield, MA	20221383.001A

Photo 11: Stream S4 downstream

Photo 12: Stream S4 cross stream

Kleinfelder
Photograph Documentation
Wetlands and Watercourses

Date of Photos:	**Site Name:**	**Site Location:**	**Project #:**
10/28/2021	Haul Road Improvements and New Pad Site	901 River Road, Deerfield, MA	20221383.001A

Photo 13: Stream S5 downstream

Photo 14: Stream S5 upstream

Kleinfelder
Photograph Documentation
Wetlands and Watercourses

Date of Photos:	**Site Name:**	**Site Location:**	**Project #:**
10/28/2021	Haul Road Improvements and New Pad Site	901 River Road, Deerfield, MA	20221383.001A

Photo 15: Stream S5 cross stream

Photo 16: Stream S6 upstream

Kleinfelder
Photograph Documentation
Wetlands and Watercourses

Date of Photos:	**Site Name:**	**Site Location:**	**Project #:**
10/28/2021	Haul Road Improvements and New Pad Site	901 River Road, Deerfield, MA	20221383.001A

Photo 17: Stream S7 upstream

Photo 18: Streams S7 and S7A downstream

Kleinfelder
Photograph Documentation
Wetlands and Watercourses

Date of Photos:	**Site Name:**	**Site Location:**	**Project #:**
10/28/2021	Haul Road Improvements and New Pad Site	901 River Road, Deerfield, MA	20221383.001A

Photo 19: Stream S7 confluence with S1

Photo 20: Wetland W1 view northwest

Kleinfelder
Photograph Documentation
Wetlands and Watercourses

Date of Photos:	**Site Name:**	**Site Location:**	**Project #:**
10/28/2021	Haul Road Improvements and New Pad Site	901 River Road, Deerfield, MA	20221383.001A

Photo 21: Upland for W2, view south

Photo 22: Wetland W2 view south

Kleinfelder
Photograph Documentation
Wetlands and Watercourses

Date of Photos:	**Site Name:**	**Site Location:**	**Project #:**
10/28/2021	Haul Road Improvements and New Pad Site	901 River Road, Deerfield, MA	20221383.001A

Photo 23: Upland for W2, view north

Photo 24: Upland at proposed pad, view south

Kleinfelder
Photograph Documentation
Wetlands and Watercourses

Date of Photos:	**Site Name:**	**Site Location:**	**Project #:**
10/28/2021	Haul Road Improvements and New Pad Site	901 River Road, Deerfield, MA	20221383.001A

Photo 25: Upland at northern extent of study area, view south

ATTACHMENT D

Stormwater Report