

USACE Pre-Construction Notification (PCN) and LUPC Wetland & Shoreland Applications

33 CFR 320-332
12 M.R.S. Chapter 206-A

June 2024

**CPKC Train Derailment Stream
Restoration Project
Sandwich Academy
Grant Twp, Maine**

Prepared For:



Prepared By:

TRC
63 Marginal Way, 4th Floor
Portland, Maine 04101





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T 207.879.1930
TRCcompanies.com

June 19, 2024

Shawn Mahaney
Senior Project Manager
U.S. Army Corps of Engineers
Maine Project Office
442 Civic Center Drive, Suite 350
Augusta, ME 04333

Via email: Shawn.B.Mahaney@usace.army.mil

Audie Arbo
Permitting and Compliance Manager
Land Use Planning Commission
22 State House Station
Augusta, ME 04333

Via email: Audie.T.Arbo@maine.gov

**Subject: CPKC Train Derailment Stream Restoration Project
Sandwich Academy Grant Township, Somerset County, Maine
U.S. Army Corps of Engineers, Pre-Construction Notification Application and
Land Use Planning Commission, Wetland and Shoreland Alteration Applications**

Dear Shawn and Audie:

On behalf of CPKC, TRC is hereby filing the attached Joint Application for the U.S. Army Corps of Engineers (USACE) Pre-Construction Notification (PCN) and the Land Use Planning Commissions (LUPC) Wetland Alteration and Shoreland Alteration applications for the CPKC Train Derailment Stream Restoration Project (Project) for USACE and LUPC review.

One digital copy of this application, including engineering drawings has been submitted to your email addresses (Shawn.B.Mahaney@usace.army.mil and Audie.T.Arbo@maine.gov).

As instructed, the \$200 LUPC application fee shall be paid using the LUPC online payment portal after the application is filed with LUPC.

CPKC has been engaging with the landowner, Weyerhaeuser Company (Weyerhaeuser) on the restoration plan details, and is securing permission from Weyerhaeuser to perform the restoration work. The letter granting permission from Weyerhaeuser will be provided as soon as it is received. CPKC is planning to perform and complete the restoration work this summer.

Please do not hesitate to contact me at 207-313-3675 or MBergeron@trccompanies.com with any questions. We look forward to working with you throughout the application review.

Respectfully submitted,
TRC Environmental Corporation

A handwritten signature in black ink that reads "Mark Bergeron".

Mark Bergeron, PE
Northern New England Area Leader

cc: Joe Van Humbeck, Kyle Sumsion (CPKC)

Attachments (1): Joint USACE PCN Application and LUPC Wetland and Shoreland Alteration Applications



April 3, 2024

Heather Storlazzi Ward
Senior Scientist/Project Manager
TRC Companies, Inc.
63 Marginal Way, 4th Floor
Portland, Maine 04101

RE: Brassua Train Derailment Stream Restoration Project | Agent Authorization

To Whom it May Concern,

CPKC (CPKC), hereby authorizes TRC Companies, Inc. (TRC), including but not limited to Mark Bergeron, Heather Storlazzi Ward, and Thomas Daniels and others, to act as its agent in connection with state and federal regulatory permitting for the Brassua Trail Derailment Stream Restoration Project.

TRC's agency authority must be exercised in the context of its obligations as a consultant to CPKC, as contemplated in TRC's related services proposals and consulting services agreement with CPKC and as may be supplemented by any written agreement between the Parties.

Sincerely,

CPKC

Kyle Sumsion

Kyle Sumsion - Mgr System Environmental Assessment



Application Forms:

- ❖ **USACE Pre-Construction Notification**
- ❖ **LUPC Wetland Alteration Form S3**
- ❖ **LUPC Shoreland Alteration Form**

U.S. Army Corps of Engineers (USACE)
APPLICATION FOR DEPARTMENT OF THE ARMY PERMIT
 33 CFR 325. The proponent agency is CECW-CO-R.

*Form Approved -
 OMB No. 0710-0003
 Expires: 02-28-2022*

The public reporting burden for this collection of information, OMB Control Number 0710-0003, is estimated to average 11 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or burden reduction suggestions to the Department of Defense, Washington Headquarters Services, at whs.mc-alex.esd.mbx.dd-dod-information-collections@mail.mil. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number. PLEASE DO NOT RETURN YOUR APPLICATION TO THE ABOVE EMAIL.

PRIVACY ACT STATEMENT

Authorities: Rivers and Harbors Act, Section 10, 33 USC 403; Clean Water Act, Section 404, 33 USC 1344; Marine Protection, Research, and Sanctuaries Act, Section 103, 33 USC 1413; Regulatory Programs of the Corps of Engineers; Final Rule 33 CFR 320-332. Principal Purpose: Information provided on this form will be used in evaluating the application for a permit. Routine Uses: This information may be shared with the Department of Justice and other federal, state, and local government agencies, and the public and may be made available as part of a public notice as required by Federal law. Submission of requested information is voluntary, however, if information is not provided the permit application cannot be evaluated nor can a permit be issued. One set of original drawings or good reproducible copies which show the location and character of the proposed activity must be attached to this application (see sample drawings and/or instructions) and be submitted to the District Engineer having jurisdiction over the location of the proposed activity. An application that is not completed in full will be returned. System of Record Notice (SORN). The information received is entered into our permit tracking database and a SORN has been completed (SORN #A1145b) and may be accessed at the following website: <http://dpcl.d.defense.gov/Privacy/SORNsIndex/DOD-wide-SORN-Article-View/Article/570115/a1145b-ce.aspx>

(ITEMS 1 THRU 4 TO BE FILLED BY THE CORPS)

1. APPLICATION NO.	2. FIELD OFFICE CODE	3. DATE RECEIVED	4. DATE APPLICATION COMPLETE
--------------------	----------------------	------------------	------------------------------

(ITEMS BELOW TO BE FILLED BY APPLICANT)

5. APPLICANT'S NAME First - Middle - Last - Company - E-mail Address -	8. AUTHORIZED AGENT'S NAME AND TITLE (agent is not required) First - Middle - Last - Company - E-mail Address -
---	--

6. APPLICANT'S ADDRESS: Address- City - State - Zip - Country -	9. AGENT'S ADDRESS: Address- City - State - Zip - Country -
--	--

7. APPLICANT'S PHONE NOS. w/AREA CODE a. Residence b. Business c. Fax	10. AGENTS PHONE NOS. w/AREA CODE a. Residence b. Business c. Fax
--	--

STATEMENT OF AUTHORIZATION

11. I hereby authorize, _____ to act in my behalf as my agent in the processing of this application and to furnish, upon request, supplemental information in support of this permit application.

SEE AGENT AUTHORIZATION ON PAGE ii OF APPLICATION PACKAGE

SIGNATURE OF APPLICANT

DATE

NAME, LOCATION, AND DESCRIPTION OF PROJECT OR ACTIVITY

12. PROJECT NAME OR TITLE (see instructions)

13. NAME OF WATERBODY, IF KNOWN (if applicable)

14. PROJECT STREET ADDRESS (if applicable)

Address

15. LOCATION OF PROJECT

Latitude: N Longitude: W

City - State- Zip-

16. OTHER LOCATION DESCRIPTIONS, IF KNOWN (see instructions)

State Tax Parcel ID Municipality

Section - Township - Range -

17. DIRECTIONS TO THE SITE

18. Nature of Activity (Description of project, include all features)

19. Project Purpose (Describe the reason or purpose of the project, see instructions)

USE BLOCKS 20-23 IF DREDGED AND/OR FILL MATERIAL IS TO BE DISCHARGED

20. Reason(s) for Discharge

21. Type(s) of Material Being Discharged and the Amount of Each Type in Cubic Yards:

Type
Amount in Cubic Yards

Type
Amount in Cubic Yards

Type
Amount in Cubic Yards

95

195

22. Surface Area in Acres of Wetlands or Other Waters Filled (see instructions)

Acres

or

Linear Feet

23. Description of Avoidance, Minimization, and Compensation (see instructions)

25. Addresses of Adjoining Property Owners, Lessees, Etc., Whose Property Adjoins the Waterbody Supplemental List		
a. Address- State of Maine, Dept of Conservation Parks & Land, 22 State House Station		
City- Augusta	State- ME	Zip- 04333
b. Address- Brookfield White Pines Hydro, LLC, 125 East Jefferson Street		
City- Syracuse	State- NY	Zip- 13202
c. Samuel E. Fuller, Jr, 1 Lighthouse Road		
City- Stockton Springs	State- ME	Zip- 04981-4746
d. Harald K. Moore, PO Box 218		
City- Jackman	State- ME	Zip- 04945
e. Address- Weyerhaeuser Company, 220 Occidental Ave S		
City- Seattle	State- WA	Zip- 98104
f. Address- Bradley D. Scott, PO Box 57		
City- Rockwood	State- ME	Zip- 04478-0057
g. Address- SO083 Rockwood Strip T2 R1 NBKP Plan 01 Lot 1		
City- No information available	State- ME	Zip- No information available
h. Address- Misery Gore Township		
City- No information available	State- ME	Zip- 04478
i. Address- SO034 Long Pond Township		
City- No information available	State- ME	Zip- 04945

Supplement S-3

Water Body and Wetland Alterations

For office use:

57310
Tracking No.

SA-1142
Permit No.

PROJECT INFORMATION

<p>1. Applicant Name(s): CPKC c/o Kyle Sumsion</p>	<p>2. Project Location (Township, Plantation, or Town): Sandwich Academy Grant Township</p>
<p>3. How was the water body or wetland(s) identified on the property? (Check all that apply.)</p> <p><input type="checkbox"/> P-WL subdistrict shown on the Commission's official Land Use Guidance Map</p> <p><input checked="" type="checkbox"/> Wetland delineation</p> <p><input type="checkbox"/> LUPC staff (based on National Wetlands Inventory maps)</p> <p><input type="checkbox"/> LUPC staff (based on staff field visit)</p> <p><input type="checkbox"/> Other, please explain _____</p>	
<p>4. Describe the water body or wetland alteration (include the purpose of and need for the project): See application narrative, section 1.7 Impacts to Natural Resources.</p>	
<p>5. Has any water body or wetland area previously been altered on the property? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO If YES, provide the date, purpose, and amount of previous alteration, and whether permits were obtained. The wetland and associated tributary to Little Brassua Lake was impacted by the April 15, 2023 train derailment. See application narrative for additional details.</p>	

TYPE AND AMOUNT OF ALTERATION

6. What type of water body or wetland(s) will be altered? (Check all that apply.)

7. Provide the amount of area (in square feet) that will be altered for each category below and calculate the total. If the "other" category is used, please explain Stream stabilization and water diversion at culvert outlet.

6. Wetland Type	7. Impact Type in Square Feet						TOTAL
	Structure	Fill	Vegetation Removal	Dredging or Dewatering	Shoreland Stabilization	Other: restoration	
<input checked="" type="checkbox"/> River, Stream or Brook (P-WL1)						361 LF	361 linear feet
<input type="checkbox"/> Lake or Pond (P-WL1)							
<input type="checkbox"/> Coastal Wetland (P-WL1)							
<input checked="" type="checkbox"/> Freshwater Wetland (P-WL1) (Wetland of Special Significance)		3,508 SF					3,508 square feet
<input type="checkbox"/> Shrub Scrub Wetland (P-WL2)							
<input type="checkbox"/> Forested Wetland (P-WL3)						1.49 acres	1.49 acres
TOTAL	0	3,508 SF	0	0	0		

LEVEL OF REVIEW AND REQUIRED EXHIBITS

8. Determine the level of review required for your project (<i>check only one option</i>) and submit all necessary exhibits with this form (<i>see instructions for each level attached</i>).	Level of Review	Required Exhibits
<input type="checkbox"/> Altering less than 4,300 sq. ft. of a P-WL2 or P-WL3 wetland.	None	
<input type="checkbox"/> Altering 4,300 to 14,999 sq. ft. of a P-WL2 or P-WL3 wetland. <input type="checkbox"/> Altering a P-WL1 wetland (S1 or S2 natural community only) *See General Instructions, attached.	Tier 1	<input checked="" type="checkbox"/> 1. Plan or drawing <input checked="" type="checkbox"/> 2. Photos of area <input checked="" type="checkbox"/> 3. Statement of avoidance & minimization
<input type="checkbox"/> Altering 15,000 to 43,560 sq. ft. of a P-WL2 or P-WL3 wetland.	Tier 2	<input checked="" type="checkbox"/> All Tier 1 exhibits <input checked="" type="checkbox"/> 4. Wetland delineation report <input checked="" type="checkbox"/> 5. Alternatives analysis
<input type="checkbox"/> Altering 43,560 sq. ft. or more of a P-WL2 or P-WL3 wetland. <input checked="" type="checkbox"/> Altering a P-WL1 wetland of any size	Tier 3	<input checked="" type="checkbox"/> 6. Functional Assessment, if required <input checked="" type="checkbox"/> 7. Compensation plan, if required

⚠ Please read. If you determined that the level of wetland review for your project is Tier 2 or Tier 3, contact the LUPC for guidance on how to proceed. Some projects may qualify for a lower tier of review if certain criteria are met. For large projects affecting wetlands, or projects of any size affecting P-WL1 wetlands, a pre-application meeting with the LUPC staff is strongly encouraged. Contact the LUPC office that serves your area to set up an appointment.

SA 1142

For office use:

Tracking No.	SA	Permit No.	\$ Fee Received
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Application for Shoreland Alteration Permit

1. APPLICANT INFORMATION

Print the names and contact information of all persons or companies with right, title or interest in the property associated with this application OR the persons or companies with prior legal authority to represent the landowners in land use matters (e.g., land managers). Persons with "right, title or interest" are those listed on any deed, lease or sales contract for the property. If a designated agent without prior legal authority will be representing the applicant, see Question 2.

Applicant Name(s) CPKC - c/o Kyle Sumsion	Daytime Phone 801-616-6284	FAX or Email (if applicable) kyle.sumsion@cpkcr.com	
Mailing Address 3939 Skyview Court	Town Wylie	State TX	Zip Code 75098

*If the applicant listed above is NOT the landowner, please complete the landowner information below and then explain on what legal authority you are able to apply for permits on the landowner's behalf:

Landowner Name(s) Weyerhaeuser Company	Daytime Phone	FAX or Email (if applicable)	
Address 200 Occidental Avenue, S	Town Seattle	State WA	Zip Code 98104

2. APPLICANT SIGNATURES AND AGENT AUTHORIZATION

If you have a designated agent, print his/her legal name and contact information below. Agents are persons acting on the applicant's behalf (such as realtors, attorneys, or contractors). If you have a designated agent, provide the requested information.

All applicants utilizing an agent must sign and date the signature box below. Agents may not sign for the applicant!

Agent Name TRC Companies c/o Heather Storlazzi Ward	Daytime Phone 207-317-6630	FAX or Email (if applicable) hstorlazziward@trccompanies.com	
Mailing Address 63 Marginal Way, 4th Floor	Town Portland	State ME	Zip Code 04101

All persons listed on the deed, lease or sales contract as owners or lessees of the property must read the statement and sign below.

I hereby authorize the above-listed individual to act as my legal agent in all matters relating to this permit application. I have personally examined and am familiar with the information submitted in this application, including the accompanying exhibits, and to the best of my knowledge and belief, this application is true and accurate. I understand that I am ultimately responsible for complying with all applicable regulations, conditions and limitations of any permits issued to me by the LUPC.

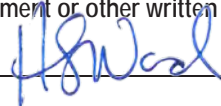
I have personally examined and am familiar with the information submitted in this application, including the accompanying exhibits and supplements, and to the best of my knowledge and belief, this application is complete with all necessary exhibits. I understand that if the application is incomplete or without any required exhibits that it will result in delays in processing my permit decision. The information in this application is a true and adequate narrative and depiction of what currently exists on and what is proposed at the property. I certify that I will give a copy of this permit and associated conditions to any contractors working on my project. I understand that I am ultimately responsible for complying with all applicable regulations and with all conditions and limitations of any permits issued to me by the LUPC. If there is an Agent listed above, I hereby authorize that individual or business to act as my legal agent in all matters relating to this permit application.

Please check **one** of the boxes below: (see "Accessing the Project Site for Site Evaluation and Inspection" just prior to the application form)

I authorize staff of the Land Use Planning Commission to access the project site as necessary at any reasonable hour for the purpose of evaluating the site to verify the application materials I have submitted, and for the purpose of inspecting for compliance with statutory and regulatory requirements, and the terms and conditions of my permit.

I request that staff of the Land Use Planning Commission make reasonable efforts to contact me in advance to obtain my permission to fully access the project site for purposes of any necessary site evaluation and compliance inspection.



Caution: The person(s) signing below must demonstrate that they have a legal right to apply for this permit, either as the landowner, lease holder, or via a legal agreement or other written contract with the landowner (See Exhibit A).

Signature(s)  Date June 17, 2024

_____ Date _____

3. PROPERTY LOCATION.

Provide the following details about your property location. Tax plan and lot numbers are listed on your property tax bill. Book and page numbers are listed on your deed. If you lease your property, check your lease to find out whether any unique lease lot numbers have been assigned to the property.


Township, Town or Plantation Sandwich Academy Grant Township	County Somerset County
Tax Plan and Lot Numbers <i>(check tax bill)</i> SO 032 Plan 01 Lot 2 (T2R1 NBKP)	Deed or Lease Information <i>(check deed or lease)</i> Book: 5097 Page: 70 Lease #:
Lot size <i>(in acres, or in square feet if less than 1 acre)</i> 12,522.23 acres	
All Zoning on Property <i>(check the LUPC Guidance map)</i> M-GN; P-SL2; P-WL3	Zoning at Development Site M-GN; P-SL2; P-WL3 (not a development site, but a restoration site)
Road Frontage. List the name(s) and frontage(s) (in feet) for any public or private roads, or other right-of-ways adjacent to your lot: Road #1 Not Applicable Frontage _____ ft. Road #2 _____ Frontage _____ ft.	Water Frontage. List the name(s) and frontage(s) (in feet) for any lakes, ponds, rivers, streams, or other waters on or adjacent to your lot: Waterbody #1 Little Brassua Lake Frontage 650 ft. Waterbody #2 Tributary to Little Brassua Lake Frontage 1000 ft.
If there is no road frontage, describe how you access your property. Property is accessed by way of Panther Road.	
<p> Exhibit: Attach, as EXHIBIT B-1, a copy of your right, title or interest in all of the land associated with your project. See Attachment 8</p> <p> Exhibit: Attach, as EXHIBIT B-2, a copy of your submerged lands lease, easement or letters of permission from the owners of any submerged lands to be affected by your proposal. Not Applicable</p>	

4. PROJECT DESCRIPTION

A. Provide a detailed summary of your proposal. (For example: install 12 feet by 100 feet of rock riprap to stabilize eroding shoreline; removal, by hand, of a 10 foot wide strip of rocks (average size 6" to 2' in diameter) below the normal high water line to facilitate the landing of a boat).

Restore approximately 360 linear feet of tributary stream to Little Brassua Lake, to restore stream habitat and to stabilize erosion.

A 20-ft by 45-ft rock apron will protect the culvert outflow from erosion. Please see section 1.6 within Attachment 1 of this application, for restoration details.

 **Certain project may require review by the Commission as Special Exceptions.** These include:

- * filling, grading, draining, dredging, or alteration of the water level in a wetland or below the normal high water line of any body of water;
- * any permanent docking or mooring facilities; and
- * installation of utility facilities in wetlands or below the normal high water line of any body of water or within any wetland.

If you are proposing any of these activities, please provide, on a separate sheet of paper attached to this application, the following:

a) substantial evidence to show there is no alternative site which is suitable for the proposed use and reasonably available for that use; and

b) a detailed description of how the proposal will be buffered from other uses and resources with which it is incompatible.

If you are proposing permanent docking facilities, you must also provide, on a separate sheet of paper attached to this application, demonstration, by substantial evidence that:

a) It is not feasible to use a temporary docking facility due to unusual or extraordinary conditions of the site; or

b) In the case of public or institutional activities, a permanent structure is necessary to provide for public safety; and

c) In the case of commercial or industrial activities, a dock is a necessary accessory structure, and a temporary dock is not feasible or adequate to provide for public safety.


B. What are the dimensions of the total area of shoreline or wetland that will be affected by your proposed activity?

Length along the wetland or shoreline: **361** horizontal feet

Distance from the normal high water line or wetland boundary out into the waterbody or wetland: **varies between 50' to 170'** horizontal feet

Distance from the normal high water line or wetland boundary back landward beyond the shoreline or wetland boundary: **Not Applicable** horizontal feet

Maximum height above the bottom of the waterbody or wetland: **Not Applicable** vertical feet

 **Exhibit:** Attach, as **EXHIBIT D-1 through D-3**, site plans which show what the project will look like when completed. The site plans must be drawn to scale and must include both an accurate overhead view and a side view of the project.

C. What is the purpose of the work to be accomplished (why is the project needed, what will be the use of the area once the project is completed, and similar information): _____

The purpose of the Project is to restore the stream channel. Please see Section 1.6 within this application, for additional details.

D. What equipment do you propose to use below the normal high water line or wetland boundary? _____

This Project restoration effort proposes using heavy construction equipment, including tracked excavators operating off of mats to reduce soil impact. A water management system will also be installed, to divert the water during in-stream restoration work.

E. What equipment do you propose to use above the normal high water line or wetland boundary? _____

This Project restoration effort proposes using heavy construction equipment, including tracked excavators operating off of mats to reduce soil impact.

F. What is the estimated cost of your proposed project? \$ 858,000

5. CURRENT NATURE AND CONDITION OF SHORE AREA.

Describe the present nature of the wetland or shore area (e.g., sandy, rocky, mud, marsh, forested, steep). _____

See Section 1.5 of this application package for current conditions.

6. ACCESS AND SITE PREPARATION.

A. Describe how the project area will be reached by equipment and vehicles required for construction (for example, by an existing road or path, through an area that will be cleared, etc.).

The Project will utilize the established access roads and paths that were in place last year. Equipment for restoration will access and will operate off of construction mats where applicable, along previously used access ways.

B. Describe any site preparation that will be required, including access for materials and equipment: Please see Section 1.6 Stream and Wetland Restoration for details on site preparation. Access roads will have functioning ditches and minor repairs in accordance with the Maine Forest Service's rules and regulations and oversight from the Forest Service. With permission from the landowner, a laydown area at the existing gravel pit on Panther Road will be established to provide nearby materials and equipment access for the Project. Access for materials and equipment located along existing access ways.

C. Will the project require the clearing of any trees or other vegetative cover? YES NO

If YES, explain and indicate the type and amount of clearing anticipated: _____

7. MATERIALS (FILL AND REMOVAL).

A. Explain, in detail, the quantity and type of materials that you propose to use in the project, and how those materials are anticipated to be used.

(PLEASE SEE SUPPLEMENTAL SHEET S-3 TO LUPC SHORELAND ALTERATION APPLICATION FORM)

B. If fill is to be used, describe the type of fill: _____

Wetland topsoil shall meet the following specifications: low hydraulic conductivity; more than 15% silt; 7 to 21% organic matter on a dry weight basis; subject to laboratory analysis to provide recommendations for amendment/fertilizers; shall be thermally refined or free of invasive seed; may be manufactured using a blend of compost, sand and fine soils.

C. How much fill do you propose to use? Quantity of organic topsoil = 1100 CY (approx.) approx. 90 CY. Common borrow material to grade and shape channel. _____ cubic yards
Common borrow material for permanent stream is approximately 90 CY. Common borrow material to grade and shape stream channel is approximately 200 CY.

D. If dredging or removal of materials, describe the materials to be removed: If residual petroleum impacts are encountered, the contaminated material shall be removed and disposed of properly, in accordance with the Soil Management Notes on sheet G-002 of the civil drawings Brassua Train De-Railment Stream Restoration Plans (Restoration Plans). TRC wetland scientists and stream restoration staff will be on site to direct site restoration activities and remove contaminated soil should it be discovered during restoration efforts. Approximately 100 CY of sediment is proposed to be removed from wetland areas.

E. How much material do you propose to remove from upland areas? Approximately 80 CY of sediment will be removed from upland areas. _____ cubic yards

F. How much material do you propose to remove from below the normal high water line or wetland boundary? Based on the wetland boundary 100 CY. _____ cubic yards

G. Where would the materials to be removed be disposed of? Contaminated material shall be removed and disposed of properly. TRC wetland scientists will be on site to direct restoration activities and remove contaminated soil should it be discovered during restoration efforts. Contaminated soil will be transported to a licensed facility by Clean Harbors or equivalent contractor. The likely final resting place would be the Norridgewock landfill.

8. LAND AND WETLAND ALTERATIONS.

A. Will your proposal alter a total of one acre or more of land area, whether upland or wetland? YES NO

 **Exhibit:** If YES, you must also complete Exhibit G: Erosion and Sedimentation Control Plan and Supplement S-3: Requirements for Wetland Alterations. PLEASE SEE FORMS SECTION

B. Will your proposal alter any amount of land that is mapped P-WL Subdistrict, or any ground below the normal high water mark of any lake, pond, river, stream, or intertidal area? YES NO

 **Exhibit:** If YES, you must also complete Supplement S-3: Requirements for Wetland Alterations. Done -- see attached S-3 form.

9. PROJECT TIMELINE.

A. Will any portion of the proposed project be in place on a seasonal basis? Not Applicable YES NO
If YES, for how many months each year and otherwise please explain: _____

B. What is the anticipated starting date of the project: Summer 2024

C. What is the estimated completion date? Fall 2024

D. Is there normally a low water period of the year for the water body on which your project is proposed? YES NO
If YES, when Typical seasonal times for low flow: July through end of September.

If YES, and your project is not proposed to be undertaken during the normal low water period of the water body, explain why Project intends to meet the low flow work window, however should unforeseen weather conditions or procurement setbacks delay restoration work, the Project may request a work window extension.

Supplemental sheet to LUPC Shoreland Alteration Application Form.

7. Materials (Fill & removal)

A. Explain, in detail, the quantity and type of materials that you propose to use in the project, and how those materials are anticipated to be used.

Response:

It is generally assumed that clean material on site will be reused, where possible, to restore the area (as fill – common borrow quantities only). This could affect the below quantities, just as a general note. For example, 90 CY required doesn't necessarily mean 90 CY has to be trucked into the site. The calculations below represent quantities of material for the entire Project area (including areas outside the Shoreland area).

The following quantities are based on hand calculations and from areas measured in CAD:

1. Common borrow material for permanent stream channel diversion berm = approximately 90 CY
2. Common borrow material to grade and shape stream channel = approximately 200 CY
3. Rip Rap Stone (various sizes for various uses) = approximately 670 CY across the whole site, will be used for stabilization, sediment management and stone weirs in thalweg/stream channel.
4. Smaller sized crushed stone (various sizes and various uses) = approximately 120 CY across whole site, will be used for temporary construction entrance and thalweg substrate.
5. Organic topsoil = approximately 1100 CY
6. Straw Mulch = approximately 5 Tons
7. Annual Ryegrass Seed mix (temporary) = 40 LB
8. New England Wetmix = approximately 35 LB
9. New England Conservation/Wildlife Seed Mix = approximately 30 LB
10. Various plantings (see landscape plan for full breakdown) = 110 individuals
11. Coir Logs (for stream channel and protecting VPs) = 950 LF (Plus approximately 650 hardwood stakes for installation)
12. Clean Sand for sandbag cofferdam = 715 CY. None is staying on site but some minor amounts will be left behind.

10. STRUCTURES.

A. Are there any structures on the property? YES NO
 If YES, continue below; If NO, go to Question 11.

B. What type of principal structure is presently on the lot? Dwelling RV
 Commercial structure(s) (explain) _____
 Other _____

C. When was the principal structure constructed or placed on the lot (month and year)?..... _____
 If a Maine Land Use Planning Commission (formerly Maine Land Use Regulation Commission) permit was obtained for the structure, what is the permit number?..... _____

D. Are there any structures presently existing along the shoreline? YES NO
 If YES, describe and provide date(s) of construction or installation. _____

11. SHORELAND CRITERIA.

If your proposed development is adjacent to any lakes or ponds, explain in detail how your proposal is consistent with each of the following shoreland criteria: **Project is not within 250' of a lake or pond.**

a. The proposal will not adversely affect any significant or outstanding natural and cultural resource values, as identified in the Commission's Wildland Lakes Assessment;

b. The proposal will not have an undue adverse impact on water quality, alone or in conjunction with other development;

c. The proposal will not have an undue adverse impact on traditional uses, including non-intensive public recreation, sporting camp operations, timber harvesting, and agriculture;

d. The proposal will not substantially alter the diversity of lake-related uses available in the area;

e. Adequate provision has been made to maintain the natural character of shoreland;

f. The proposal is consistent with the management intent of the affected lakes classification; and

g. Where future development on a lake may be limited for water quality or other reasons, proposed development on each land ownership does not exceed its proportionate share of total allowable development.

Refer to Section 10.25,A of the Commission's *Land Use Districts and Standards*, as well as the "Review Criteria for Shoreland Permits" in the Commission's *Comprehensive Land Use Plan* (Appendix C, p 4-5) for standards for shoreland development.

12. DEVELOPMENT IN FLOOD PRONE AREAS.

Is your proposed activity located within a mapped P-FP (Flood Prone Area Protection) Subdistrict, a mapped FEMA (Federal Emergency Management Agency) flood zone, or an unmapped area prone to flooding?

}	P-FP Subdistrict	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO
	FEMA Flood Zone.....	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO
	Unmapped Area Prone to Flooding.....	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO

If you answer YES to any of these questions, you must complete Supplement S-4: *Development in Flood Prone Areas*. Contact the LUPC office serving your area or download at www.maine.gov/dacf/lupc/application_forms/index.shtml.

13. ADDITIONAL INFORMATION.

State any additional facts regarding this application that you feel may further explain your proposal or assist the Commission in its review of your application. (If you need additional space, use a separate 8 1/2" by 11" sheet of paper.)

Please see Application narrative and stream estoration plan for additional information.

14. APPLICATION FEE.

Check one of the following: See application fee documentation in the front of this application package.

I would like to pay my application fee online, please contact me with the necessary information.

For office use:

<input type="text"/>	SA	<input type="text"/>
Tracking No.		Permit No.

EXHIBIT D-3: SITE PLAN CROSS-SECTION

Prepare a profile or cross-section view site plan that shows the launch and includes all the elements described for Exhibit D. Do not use colors.

PLEASE SEE PROJECT PLANS INCLUDED IN ATTACHMENT 4 OF THIS APPLICATION PACKAGE																													

SA-1142
 CHECKLIST OF REQUIRED FEES, EXHIBITS AND SUPPLEMENTS

Please check off the following for the application fee, exhibits, and supplements. Use the requirements based on certain questions and the instructions in Required Fees, Exhibits and Supplements to determine which are required for your application. Please check off if the exhibit is required and if it has been provided, and note that the supplements may also require additional exhibits. Please check with Commission staff if you have any questions.

Required*		Provided		Exhibit	*Required
YES	NO	YES	NO		
√	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Application Fee	Required unless a waiver is granted by the LUPC Director in very specific and limited circumstances.
√	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Exhibit A – Location Map	Required unless already on file with the LUPC. See Attachment 2
√	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Exhibit B-1 – Deed, Lease or Sales Contract – Upland Areas	Required unless already on file with the LUPC and no changes have been made to the lot or covenants/restrictions or easements from what is on file. See Attachment 8
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Exhibit B-2 – Deed, Lease or Sales Contract – Submerged Land Areas	Required unless already on file with the LUPC and no changes have been made to the lot or covenants/restrictions or easements from what is on file.
√	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Exhibit C – Site Photographs	Required unless already on file with the LUPC and photos are representative of current conditions. See Attachment 3
√	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Exhibit D-1 – Site Plan	Required. Show all existing and proposed structures and features. See Attachment 4
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Exhibit D-2 – After Site Plan	Required if all proposed changes cannot be clearly shown on Exhibit D-1.
√	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Exhibit D-3 – Profile Plan	Required. See Attachment 4
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Exhibit E – Phosphorus Control	Required if you propose to create a disturbed area of one acre or more within the direct watershed of a lake or pond as indicated in Question 8.
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Exhibit F – Erosion and Sedimentation Control Plan	Required if you will alter, disturb or fill a total of one acre or more of land, whether upland or wetland. See Attachment 7
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Supplement S-3: Requirements for Wetland Alterations	Required if the answer to either part of question 8 is YES. See FORMS section of this application package
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Supplement S-4: Requirements for Development in Flood Prone Areas	Required if the answer to question 12 is YES.



CPKC Train Derailment Stream Restoration Project, Sandwich Academy Grant Twp, Maine
Maine General Permit Application: Pre-Construction Notification
Land Use Planning Commission: Wetland Alteration and Shoreland Alteration Applications

ACRONYMS

CWA	Clean Water Act
FEMA	Federal Emergency Management Agency
GHD	GHD Engineering, Architecture & Construction Services
LUPC	Land Use Planning Commission
MDEP	Maine Department of Environmental Protection
MFS	Maine Forest Service
MHPC	Maine Historic Preservation Commission
NLAA	Not likely to adversely affect
NRCS	Natural Resources Conservation Service
NWI	National Wetlands Inventory
PCN	Pre-Construction Notification
PEM	Palustrine Emergent
PFO	Palustrine Forested
Project	Brassua Train Derailment Stream Restoration Project
PSS	Palustrine Scrub-Shrub
RTE	Rare, threatened, or endangered
THPO	Tribal Historic Preservation Office
TRC	TRC Companies, Inc.
USACE	United States Army Corps of Engineers
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
UT	Unorganized Territory
Weyerhaeuser	Weyerhaeuser Company
WOTUS	Waters of the United States



ATTACHMENT 1. ACTIVITY DESCRIPTION

1.1 Project Introduction

CPKC is proposing to perform a stream and wetland restoration project (the Project), near milepost 56 of their Moosehead subdivision rail line, in Sandwich Academy Grant Township (T2 R1 NBKP) an unorganized territory in Somerset County, Maine (Site). The Project is a stream and wetland restoration project that will restore the unnamed tributary to Little Brassua Lake and adjacent wetland that was impacted by the April 15, 2023 train derailment and associated emergency clean up. The Site is located near Panther Road (also known as Old Station Road), south of Little Brassua Lake (see Figure 1, Attachment 2 for Site Location Map). The Project is located on commercial working forest land owned by the Weyerhaeuser Company (Weyerhaeuser), where CPKC's right-of-way passes through. The land owned by Weyerhaeuser around the derailment site is covered by a conservation easement to the Forest Society of Maine.

The applicant has been working in cooperation with state agencies regarding the emergency soil clean-up effort and proposed restoration and submits this joint USACE/LUPC application to the U.S. Army Corps of Engineers (USACE) and the Land Use Planning Commission (LUPC) for review and approval. During the soil remediation associated with the emergency response and recovery effort following the derailment, CPKC worked with the Maine Department of Environmental Protection (MDEP). MDEP accepted the Comprehensive Soil Remediation Report prepared by GHD dated July 28, 2023, for the response and recovery effort. CPKC is prepared for additional cleanup efforts if any unknown residual impacts are identified during the restoration effort.

The Project area consists of approximately 2.5 acres of disturbed land (see the maps in Attachment 2). The Project proposes to restore the unnamed tributary to Little Brassua Lake and its associated wetlands that were impacted by the derailment and emergency response activities. As part of the restoration effort, the Project will permanently impact small areas protected under the Clean Water Act (CWA) for the purpose of water diversion and culvert inlet and outlet protection, for the culvert that was replaced by CPKC immediately after the derailment.

1.2 Project Description

The Project purpose and need is to restore areas disturbed by the derailment to mimic pre-existing conditions to the extent feasible. The Project is located on a 12,522-acre parcel of land in Sandwich Academy Grant Township in Somerset County. It can be accessed off Panther Road by way of Demo Road. The Project area is bounded to the north by Little Brassua Lake, to the west, south and east by commercial working forest land and is transected by the CPKC right-of-way. There is one leased camp located to the north of the Project area on land owned by Weyerhaeuser. Other than the leased camp, there are no residential structures in the vicinity of the Project area. The map and lot are identified as Map SO 032 Plan 01 Lot 2 and encompasses the LUPC zoning districts General Management subdistrict (M-GN), Shoreland Protection subdistrict (P-SL2) and Forested Wetlands Protection (P-WL3). See Figure 4 in Attachment 2 for a LUPC Zoning Map. The land is privately owned by Weyerhaeuser and accordingly, the applicant has been



and will continue to interact with Weyerhaeuser throughout the permitting and restoration efforts. The Project area currently consists of open, disturbed, and stabilized land. Please see Attachment 3 for Photographs. The Project area contains three delineated wetland areas comprising approximately 3.37-acres within the Project area, jurisdictional under the USACE. The applicant has provided the LUPC a plan of restoration and will provide scheduling updates to the USACE and LUPC throughout the Project. CPKC plans to conduct the restoration activities during the summer of 2024 following permit approvals. The Project includes an approximate 2.5-acre overall limit of disturbance, which includes the upland, wetland, and stream restoration areas. Prior to the derailment, the Project area was forested upland and wetland.

After the restoration work is complete, it is anticipated that the site will need only minimal maintenance. Furthermore, the applicant has committed to providing annual inspection reports for a three-year duration. The inspection reports will include a photolog and will document restored stream and wetland functions and assess whether the restored resources are functioning as intended.

The objectives of this Joint USACE/LUPC application are to demonstrate the Project will account for permanent impacts to Waters of the United States (WOTUS), while at the same time restore wetlands and the tributary stream to Little Brassua Lake.

1.3 Project History and Background

On the morning of April 15, 2023, a westbound CPKC train derailed in Sandwich Academy Grant Township, near milepost 56 of their Moosehead subdivision rail line. The derailment location is about 18 miles east of the town of Jackman, Maine (Site). See Figure 1 in Attachment 2 for a Site Location Plan. Three westbound locomotives and six cars derailed. CPKC crews provided emergency response services to remove the locomotives and cars from the stream and wetland and successfully repaired and reopened the rail line. Absorbent booms and other spill containment measures were utilized to limit impacts to adjacent wetlands and Little Brassua Lake.

Access was created in the freshwater wetland and uplands to enable emergency response operations to reach the Site and setup equipment for removal of the locomotives and to manage the derailed cars. Some of the derailed locomotives and cars impacted the natural stream channel and adjacent wetlands. Temporary clean fill was placed in the wetland to aid in water management and soil remediation. Additional short-term measures were taken to bypass stream flows around the Site. Federal and state agencies were informed of the clean-up efforts and were kept apprised of Site conditions and work being done throughout the response efforts. Two permanent 60-inch diameter steel culverts were placed in the railroad right-of-way to replace the culvert that existed prior to the derailment.

CPKC worked with the MDEP during the soil remediation associated with the response and recovery effort following the derailment. MDEP accepted the Comprehensive Soil Remediation Report prepared by GHD dated July 28, 2023, for the response and recovery effort. CPKC is prepared for additional cleanup efforts if any unknown residual impacts are encountered during the restoration effort.



In May 2023, TRC delineated the stream, wetlands, and vernal pools at the Site, and in June 2023 a topographic survey of the Site was conducted by Colliers Engineering and Design. (See Figures within Attachment 2 for details). A draft Site Restoration plan was submitted to the LUPC for review and comment in August 2023. These applications are based on that draft Site Restoration plan. CPKC had planned to complete the stream and wetland restoration activities during the late summer and fall of 2023, but due to the extraordinary rainfall received at the Site during those months, restoration work was not possible. CPKC heavily stabilized the Site for the winter months with appropriate erosion control measures, and restoration activities will occur during the summer of 2024.

1.4 Site Characteristics Pre-Derailment

This Section describes the pre-derailment Site conditions. Because the Site has been significantly disturbed, TRC based the pre-derailment Site conditions using adjacent areas as a guide, along with aerial photo interpretation and other on-line resources, such as National Wetland Inventory (NWI) and Natural Resources Conservation Services (NRCS) Soils Maps, in addition to the May 2023 field delineations.

The Site consists of a large palustrine forested (PFO) wetland (Wetland 1), bisected by the railroad, with a braided, unnamed perennial tributary (Stream 1) that flows northwest meandering to Little Brassua Lake approximately 750 feet to the northwest (see Figure 2 in Attachment 2). Portions of the PFO wetland is known to have included dead trees due to beaver impoundment impacts, particularly to the wetland south of the railroad tracks. There is a stream channel that drains the watershed south of the derailment site that flows along the southerly edge of the railroad embankment before connecting to the culverts under the railroad. Downstream from the Site, Wetlands 2 and 3 border the meandering stream near the edge of Little Brassua Lake.

The Site near the derailment gently slopes from the south toward Little Brassua Lake. Panther Road (labeled as Old Station Road on some maps) provided access to the Site for heavy construction equipment needed in the early stages of emergency response actions.

TRC provided resource field services on May 18 and 19, 2023 to delineate the wetlands and streams and the limits of disturbance. Prior to the field assessment, a desktop analysis was conducted to review topography, aerial photographs, and United States Fish and Wildlife Service (USFWS) NWI maps to help identify state and federally jurisdictional wetlands and waterbodies (streams, ponds, and vernal pools). Wetlands were delineated in the field in accordance with the USACE Wetlands Delineation Manual (1987) in conjunction with the Regional Supplement to the USACE Wetland Delineation Manual: Northcentral and Northeast Region, Ver. 2.0 (January 2012). In some cases, a “best professional judgement” to determining wetland boundary lines was used due to the amount of disturbance to the resources on Site. The centerline of the stream channel was collected, along with wetland data points, using standard Global Positioning System (GPS) technology with sub-meter accuracy. Colliers Engineering and Design conducted a topographic survey in June 2023 to capture the existing ground contours near the Site. However, some remediation and restoration activities occurred into the fall of 2023, so some minor changes in ground contours have taken place.



Hydrology

The Site (Figure 1 in Attachment 2) generally drains towards the northwest, in the direction of the Little Brassua Lake via the unnamed tributary and subsurface flow. The Site is in the Brassua Lake – Moose River Watershed (010300010404) (from US EPA’s WATERS GeoViewer 2.0). The LUPC Zoning and Parcel Viewer indicates a few zoning designations near the Site, including a M-GN General zone north of the railroad, a P-WL3 Forested Wetlands zone south of the railroad, and a seventy-five (75) foot shoreland zone buffer in the Site. (Figure 4 in Attachment 2)

Flood hazard areas have not been mapped in this section of Maine by the Federal Emergency Management Agency (FEMA). TRC estimates that the restoration activities will not impact any floodplains at the Site.

Wetlands and Streams

The USFWS is the principal federal agency tasked with providing information to the public on the status and trends of wetlands on a national scale. The USFWS NWI is a publicly available resource that provides detailed information on the abundance, characteristics, and distribution of nationwide wetlands (where mapped). NWI mapping data is offered to promote the understanding, conservation, and restoration of wetlands. NWI maps can be accessed through the web here [National Wetlands Inventory \(usgs.gov\)](https://www.usgs.gov/national-wetlands-inventory). The LUPC has environmental standards related to impacts to protected natural resources in unorganized territories of Maine.

According to TRC’s review of NWI mapping, there are two NWI-mapped wetlands, within the Site. One NWI-mapped wetland is located to the south of the railroad, draining north towards the second NWI-mapped wetland, which outlets into Little Brassua Lake to the north. The NWI-mapped wetland is classified as a palustrine forested, needle-leaved evergreen wetland with seasonal flooded, anthropogenically impounded hydrology (PFO4Eh). Field conditions reveal that this wetland has beaver impoundments located throughout. In addition to the beaver impoundments, hydrology is impounded by the CPKC embankment. This wetland corresponds to the field delineated Wetland 1 (see Attachment 2, Figure 2). The second NWI-mapped wetland is located to the north of the railroad and receives hydrology from the south, draining north into Little Brassua Lake. This NWI-mapped wetland is classified as a seasonally flooded, intermittent riverine, streambed (R4SBC). Field conditions reveal that this stream or riverine wetland as described by NWI mapping, is located downstream of several beaver impoundments. This stream corresponds to field delineated Stream 1.

Field mapped wetlands and streams were delineated on May 18 and 19, 2023, by TRC wetland scientists, and are described below. Please see Attachment 3 for representative photographs.

Wetland 1 is a palustrine forested (PFO) wetland which has been impacted in the vicinity of the CPKC right-of-way by the train derailment. Wetland 1 is in the central portion of the Site (Figure 2, Attachment 2) and drains north towards delineated Stream 1, ultimately draining into Little Brassua Lake, to the north. The CPKC rail line bisects Wetland 1. This wetland has been historically impounded both by several beaver dams and by the CPKC embankment. Standing dead trees and dead shrubs characterize the wetland area



south of the tracks. Living vegetation in this location consists of sedges (*Carex sp.*) and willows (*Salix sp.*). Indicators of wetland hydrology include saturation (A3), water-stained leaves (B9), and oxidized rhizospheres (C3). Soils are composed of silt loam and meet Hydric Soil Indicator F6 Redox Dark Surfaces described in *Field Indicators of Hydric Soils in the United States*, Version 8.2 (Field Indicators).

Vegetation to the north of the railroad is significantly different than to the south. While site conditions at the time of the field delineation were severely disturbed by the train derailment, dominant wetland vegetation to the north of the railroad includes *carex sp.*, sensitive fern (*Onoclea sensibilis*), jewelweed (*Impatiens capensis*), ostrich fern (*Matteuccia struthiopteris*), red maple (*Acer rubrum*) and balsam fir (*Abies balsamea*). Hydrology and soils are similar to the characteristics described south of the tracks.

Stream 1 is perennial stream that originates off site from headwater wetlands associated with beaver impoundments. Stream 1 has been impacted in the vicinity of the CPKC right-of-way by the train derailment. Stream 1 flows north through Wetland 1, under the CPKC embankment, ultimately draining into Little Brassua Lake. Because Stream 1 has been impacted by beaver activity, the course of its flow is variable. For example, beaver impoundment activity upstream of the Site has modified the course of the flow, where at the time of delineation the stream flowed due north, and at other times Stream 1 flows east towards field delineated Stream 3 (when impounded upstream, Stream 3 is an intermittently dry streambed). The northern section of Stream 1 has ledges at its mouth and a rocky bottom, with cobble and rocky riffles and small pools while the southern end of the stream is silty sand with defined channel banks and a flatter slope stream bed. The stream width ascends from south to north, increasing in bank width from 4 feet wide (in the south) to approximately 8 feet wide (in the north). The average depth of the stream channel is 12 to 18 inches.

Stream 2 is a perennial stream and tributary to Stream 1, located north of the CPKC right-of-way. Stream bank width is approximately 4 feet wide, with a water depth of 4-inches at the time of delineation. Stream 2 was not impacted by the derailment.

Stream 3 is an intermittent stream and tributary to Stream 1, located to the south of the CPKC right-of-way. The streambed is occasionally dry due to upstream beaver impoundment. No water was flowing at the time of delineation; however, Stream 3 flows heavily during larger rain events. Stream bank width is approximately 6-feet wide. A portion of Stream 3 near the culverts was impacted by the derailment.

Please see Attachment 6 for USACE Wetland Determination Data Plot Forms.

Rare, Threatened and Endangered Species

TRC's wetland and waterbody delineations did not include formal field surveys for rare plants, or rare, threatened, or endangered (RTE) species, although none of these features were noted. To identify Endangered, Threatened, and Special Concern wildlife; Natural Communities; and Rare Plants, TRC reviewed Maine Beginning with Habitat web maps from the Maine Department of Inland Fisheries and Wildlife (MDIFW). The Beginning with Habitat maps do not show any natural communities, rare plants, or State listed wildlife habitat but do show a seventy-five (75) foot riparian buffer associated with Stream 1



and a two-hundred and fifty (250) foot riparian buffer along Little Brassua Lake. TRC consulted with the MDIFW fish biologist who stated the Department did not have any fisheries data on this tributary stream. Furthermore, MDIFW indicated that mitigation for fish passage impacts would only be recommended in the scenario that the culverts act as an impediment to fish passage. Since the stream channel elevations will be brought up to grade during the restoration and fish passage will be restored, CPKC believes no mitigation will be required.

The USFWS Information for Planning and Consultation (IPAC) database was reviewed to identify any federally listed species, critical habitat, migratory birds, or other natural resources within the Site. The database listed the potential for Northern Long-eared Bat, Canada lynx, and monarch butterfly to be present at the Site. The Site overlaps with critical habitat for Canada lynx, and the determination key resulted in an “is not likely to adversely affect (NLAA)” listed species or designated habitat” outcome. Additionally, the Northern Long-eared Bat determination key resulted in a “no effect” determination for the Site.

Please see Attachment 5 for the IPaC results.

1.5 Current Conditions

Remediation activities at the Site began immediately after the derailment and major excavation work has been completed; the derailed locomotives and cars have been removed and scrapped, and impacted soils have been removed. Temporary culverts installed shortly after the derailment were replaced with two permanent 60-inch diameter steel culverts. A temporary underflow dam that was installed about 200 feet downstream of the Site to contain impacted materials during emergency remediation operations was removed during the fall of 2023.

During remediation activities, soil and water sampling was conducted per applicable state and federal standards. Disturbed areas of the Site have been temporarily stabilized with appropriate erosion control measures until final Site restoration activities begin. The Site was monitored regularly by TRC and onsite contractors to prepare for and respond to rainfall events during the 2023 construction season. Prior to winter weather and frozen ground conditions, restoration work was halted, and the site was stabilized for winter conditions. Currently, no restoration work is occurring at the Site, and the Site is in stable condition. TRC and CPKC visited the Site on May 1, 2024, and observed that the Site held up well over the winter. CPKC and TRC will coordinate the start of restoration activities with the applicable federal and state agencies, including the Maine Forest Service.

During 2023 restoration activities, erosion and sediment controls around the Site primarily consisted of hay bales, straw mulch, erosion control mulch, and erosion control socks. In the stream below the beaver dam, absorbent booms were used as a protective measure to mitigate possible impacts from migrating downstream. Multiple layers of turbidity curtains and containment booms were in place in Little Brassua Lake and were regularly monitored and replaced as needed. During restoration, CPKC will use the standards and specifications listed in the Maine Erosion and Sediment Control Practices Field Guide for



Contractors, Maine Department of Environmental Protection (2015) and the site-specific erosion and sediment control plans (See Attachments 4 and 7).

The disturbed area around the Site is approximately 3 acres, of which 1.49 acres is wetland disturbance.

1.6 Stream and Wetland Restoration

The stream and wetland restoration plan considers the pre, post, and current conditions, and informs on final restoration measures. During the May 2023 wetland delineation effort, the limits of disturbance resulting from the train derailment and emergency response operations was recorded along with photo documentation. Wetland extents, stream channels, and disturbed areas were geo-located in the field using sub-meter GPS positioning and are provided in aerial format on Figure 2, Attachment 2. Colliers Engineering, a Professional Land Surveyor licensed in Maine, collected topographic data the week of June 12, 2023, to assist with defining the extent of the impacted area and for use in restoration planning. Further, pre-derailment LiDAR based topography was used to achieve pre-derailment conditions and was used as a guide to refining grades and pre-existing topography.

CPKC proposes to restore the stream channel and associated wetlands to the extent feasible to approximate the conditions prior to the derailment. During emergency response and remediation activities, CPKC installed two new 60-inch diameter steel culverts at the location of the pre-existing stream crossing. Restoration of the stream channel will be accomplished by removing sediment where it was filled in from the derailment disturbance and associated remediation activities, on both the north and south sides of the track. Clean fill will also be brought in to restore the ground elevations after impacted soils were removed during remediation activities following the derailment.

The two 60-inch culverts installed during the emergency response effort will remain as permanent structures. During restoration activities, if residual petroleum impacts are encountered, the contaminated material shall be removed and disposed of properly, in accordance with the Soil Management Notes on sheet G-002 of the civil drawings *Brassua Train De-Railment Stream Restoration Plans* (Restoration Plans). TRC wetland scientists and remediation staff will be on site to direct site restoration activities and oversee removal of contaminated soil should it be discovered during restoration efforts.

The restoration plan described in this application is accompanied by the Restoration Plans, dated March 2024, included as Attachment 4. The restoration work will be conducted in phases, outlined on the Restoration Plans. In general, the following restoration elements shall be performed:

- Re-establish Laydown Yards, Equipment and Materials Staging
- Install Erosion and Sediment Controls
- Install Water Management System
- Restore Stream Channel
- Restore Disturbed Wetland Areas
- Restore Disturbed Upland Areas
- Final Site Stabilization



Laydown Yards and Equipment and Materials Staging

Due to the remote nature of the Site and to reduce construction vehicle traffic, CPKC's contractor has identified and will re-establish a temporary laydown area used in 2023 for earthwork materials and equipment staging. Several existing temporary laydown areas were assessed for ease of access, proximity, size, and durability. The temporary laydown area of choice is in close proximity to the Project area, approximately 1/3 of a mile west of the Project area on Panther Road in a gravel pit owned by Weyerhaeuser. It is in upland areas away from resources, will have necessary erosion control measures installed, and will be removed upon completion of restoration activities.

Install Erosion and Sediment Controls

Prior to any restoration activities at the Site, appropriate erosion control devices (ECD) will be installed as shown on Drawings G-003 and C-200 of the Restoration Plans. TRC personnel will be onsite to assist the contractor with questions that arise during restoration activities. Throughout restoration activities, the contractor and TRC personnel will evaluate the restoration area and install additional ECDs as needed and repair the existing ECDs in advance of anticipated precipitation events.

Water Management System

After the work area is defined, construction laydown yards are established and perimeter controls are established, the Water Management System will be installed. To work in dry conditions during stream restoration north of the railroad, the work area will need to be dewatered and the stream flowing through the work area will need to be diverted. Based on TRC's experience during the 2023 construction season which saw an extraordinary amount of rainfall and storm events, keeping the work area as dry as possible will avoid sedimentation and make earthwork activities efficient.

A temporary sandbag cofferdam will be installed upstream of the two culverts in previously disturbed wetland areas to collect stream flow coming from the south (See Drawing C-200 of the Restoration Plans). The cofferdam was sized using a HydroCAD model to intercept anticipated stream flows for storms with rainfall of up to 2 inches. Water will be pumped from the temporary reservoir via trailer-mounted pumps through water hoses passing through the existing western 60-inch steel culvert and into the filtered containment structure. In the event of a higher intensity rainstorm, the cofferdam will be equipped with two emergency spillways set at appropriate elevations. Water that enters the spillway will then enter the western culvert and will flow to the north, by way of a temporary channel. The channel then drains into the filtered containment structure, for sediment settling before it tops the level spreaders.

Without disturbing soils or breaking ground, a filtered containment structure will be built in previously disturbed areas where pump hose outflows from the temporary reservoir can make their way to the stream. Any water that flows out of the emergency spillway of the cofferdam will enter a temporary overflow channel that directs flow to the containment structure. The filtered containment structure will be located to the west of the proposed stream restoration work area (See Attachment 4, Sheet C-200).



The filtered containment structure will reduce turbidity in the pumped water. The structure will be constructed as a sediment trap and will be lined with rip rap stone.

Throughout the active restoration construction area, smaller forebays can be installed in previously disturbed areas to collect groundwater or surface water to provide dry working conditions for stream restoration. Sump pumps will dewater the surface water collected by the forebays and will discharge to the filtered containment structure.

Stream Channel Restoration

Approximately 361 linear feet of stream will be restored. Every effort will be made to complete in-stream work within the MDIFW and USACE time of year work window from July 15th to September 30th. However, if unforeseen weather conditions or procurement setbacks delay restoration work, the Project may request a work window extension. After the Water Management System is installed, the buried construction mats used during emergency response located on the east and west sides of the culvert outlet shall be removed, followed by restoration of the stream channel (Attachment 4, Sheet C-301). The stream channel will be re-graded to relatively natural contours, as detailed on the Restoration Plans (Attachment 4). ECDs will be used as needed to prevent sedimentation. As directed by TRC personnel, the restored streambed can be stabilized with excess material removed from accumulated pockets of sediment that were deposited from the outwash event. To the greatest extent practicable, the restored stream channel has been designed to mimic the conditions both upstream and downstream, which serve as a baseline for the conditions that are believed to have existed prior to the derailment. Naturally occurring stream sinuosity, as well as stream bed conditions have been replicated to the extent possible, while also striving to accommodate and protect the resource from high velocity flows. The design also incorporates habitat enhancement elements intended to provide habitat and allow for the passage of fish. The streambed is designed to handle the variable waterflows from the 507-acre watershed. The drainage from the watershed is complicated by beaver activity upstream of the culverts, where several impoundments have historically created an intermittent stream flow, with periods of high flows if or when the impoundments breach. As a result, the stream system is unpredictable and has the potential to fluctuate between no flow, low flows, and very high flows.

To accommodate the unpredictable and fluctuating flow regime, the stream channel has been designed with a low flow thalweg and a high flow, overflow riparian area. The high flow riparian area flanks the restored stream channel with an average width of approximately 9 feet on either side of the channel, having a total width of 30 feet (see stream cross-section on Sheet C-400). The overflow area is wide enough to handle a 100-year storm event. The overflow side slopes will be spread with topsoil, stabilized with erosion control blankets, and ultimately be vegetated. Trees and shrubs will be planted in the broader floodplain, outside the overflow area, to reduce risk of washout and subsequent erosion (See Sheet C-302).

Working towards the stream center, a 12-foot-wide zone has been designed to handle the more typical spring high flows, designed with banks protected by 16-inch diameter coir logs. The channel between the coir logs will be protected with rock, some of which may be gathered from on-site areas, collected from



the sediment deposition areas to be restored. Specifications call for placing natural cobbles and larger stones throughout, to provide diversity of habitat, shade, and refugia for fish and stream invertebrates. The center thread of the stream has been designed to include a low-flow thalweg, having a typical width of 4 feet, designed with intermittently spaced stone weirs, providing fish habitat (refuge and passage), while also accomplishing elevation gain, bringing the elevations of the stream channel up to culvert outlets, removing the perched nature of the outfall. The thalweg will be surfaced with bank run dirty gravel and the contractor will have opportunity to salvage and repurpose material from the sediment deposition areas. No new excavation of undisturbed wetland soils is allowed.

According to MDIFW regional fisheries biologists, a formal fisheries survey of the tributary stream has not been conducted. The stream can generally be characterized as a typical stream within this region. The lower portion of the stream has small patches of gravel among 2 to 3 natural ledges that appear to be fish passage obstacles during low flow. The stream flow is affected by beaver activity and impoundments upstream, effectively creating conditions characterized by low to zero flow, as observed by TRC staff throughout the 2023 calendar year. Downstream, Federal Energy Regulatory Commission (FERC) regulated drawdowns of the dam-controlled Little Brassua Lake impact resident fish species ability to reach the stream mouth during the drawdowns. Regardless, the stream is known to have smelt run in the spring, and due to being weak swimmers, the smelt likely spawn in the lower portion or mouth of the stream, downstream of the first significant ledge. Wild brook trout habitat is minimal and while there is potential for a few resident wild brook trout, the habitat does not stand out as brook trout habitat.

The twin culverts installed pass approximately 40 cubic feet per second during normal flows, equivalent to 3.2 feet per second. These rates do not appear to present velocity barriers to resident fish, provided the fish can reach the culverts by dodging existing obstacles (natural ledges, lake drawdown, etc). The stream has been designed with a low flow channel and intermittent 'steps' which provide elevation gain throughout the restored stream section. With the perched nature of the culverts removed, the culvert outlet elevation is congruent with the remainder of the downstream channel.

Wetland Restoration

After the restored stream channel is established, the disturbed wetlands adjacent to the stream can be restored. Restored wetlands will total 1.49 acres and will incorporate a 'pit and mound' configuration to mimic conditions in nearby wetlands.

Throughout restoration activities, the contractor and TRC's environmental inspector will evaluate the restoration area and install additional ECDs as needed and repair the existing ECDs in advance of anticipated precipitation events.

If equipment needs to work within the disturbed wetlands, construction access via mats may be established. To access areas on the east side of the stream, a temporary stream crossing will be established using either a temporary, non-embedded culverts or a stream span (See Sheet C-301).



The contractor will regrade the wetlands to approximate the natural wetland contours prior to disturbance. Excavated areas, as well as areas of sedimentation shall be regraded and restored in accordance with the Restoration Plan. As noted above, excess material removed from areas of sediment deposition can be used as streambed material for the restored stream. After elevations of subsurface soils are rough-graded, the wetland restoration areas will be top-dressed with a sufficient depth (8" +) of weed-free organic soils, creating pit and mound microtopography to mimic natural conditions. Topsoil will be sourced from invasive-free uplands or manufactured from composted material with a minimum organic carbon content of 4-12% (7-21 percent organic matter) on a dry weight basis for soils.

Natural features such as dead and dying woody debris and large stones can be returned or added to the wetland restoration area to provide structural diversity and habitat refugia for decomposers, organisms, and small mammals. CPKC will aim for 4% cover of a wide variety of sizes of dead and dying woody debris.

Restored wetlands adjacent to the restored stream channel will be planted with approximately 110 shrubs and saplings, with an average height of 3 to 4 feet. Species proposed are similar to the native vegetation existing in adjacent wetlands, and will consist of the following species:

- Balsam fir (*Abies balsamea*);
- Red maple (*Acer rubrum*);
- Yellow birch (*Betula alleghaniensis*);
- Pussy willow (*Salix discolor*); and
- Speckled alder (*Alnus incana*).

Specific locations of these species are shown on Sheet C-302 of the Restoration Plans.

Restored wetlands will be seeded with a native wetland seed mix to stabilize soil and restore wetland habitat. The applicant will use New England Wetmix (Wetland Seed Mix) supplied by New England Wetland Plants, Inc. ([New England Wetland Plants, Inc. – Native Grasses, Native Shrubs, Northeast Plants, and Soil Erosion Control Solutions \(newp.com\)](#)) or [Home - Pierson Nurseries, Inc.](#)), or approved equal. Seeded areas will be stabilized with straw mulch.

Table 1-1. Summary of Restored Natural Resources

Resource Area Type and ID	Impacted Area	Restored Area
Wetland 1	1.49 acres	1.49 acres
Stream 1	361 linear feet	361 linear feet



Upland Restoration

Upon restoration of disturbed wetland areas, work can commence to restoring the adjacent upland areas that received sedimentation because of the derailment and remediation activities.

Throughout restoration activities, the contractor and TRC's environmental inspector will evaluate the restoration area and install additional ECDs as needed and repair the existing ECDs in advance of anticipated precipitation events.

Sedimentation located in the upland areas will be graded to a natural state. As noted above, this excess material to be removed can be used as streambed material for the restored stream.

Upland native seed mix will be used in the upland sedimentation areas to quickly restore vegetation groundcover. New England Conservation/Wildlife Mix from New England Wetlands Plants, or approved equal, shall be used. Seeded areas will be stabilized with straw mulch.

As directed by TRC personnel, debris materials that are negatively impacting stream flow will be removed by hand. No construction equipment will be allowed to operate in or near the stream north of the beaver dam.

Final Site Stabilization

As restoration activities wind down, permanent stabilization of the access drives and storage areas can occur.

All gravel and rock that was placed to provide stable access and work areas shall be removed down to native soil and will be removed from the Site. Any remaining materials, such as wood, ties, or metal, will be collected and removed from the Site for legal disposal. The temporary railroad crossing will be removed upon completion of restoration activities. Soil compaction will be evaluated prior to importation of new topsoil, and decompaction measures (such as scarification) may be beneficial in encouraging vegetation growth. Apply upland, native seed mix over all exposed soil. New England Conservation/Wildlife Mix from New England Wetlands Plants, or equal, shall be used.

Uplands will be stabilized by adding straw mulch over exposed soil to prevent further erosion and sedimentation into wetlands. Access points used during restoration will be blocked by large boulders or evergreen saplings, to prevent wheeled access into the newly restored area.



1.7 Impacts to Natural Resources

Table 1-2. Summary of Protected Natural Resources Impacts

Wetland ID	Lat. Long.	Wetland Type ^{/1}	Direct Impacts ^{/2} (square feet)		Secondary Impacts ^{/5} (square feet)		Total Impacts USACE ^{/7} (square feet)		
			Temp. ^{/3}	Perm. ^{/4} (fill)	Temp.	Cover type Conversion ^{/6}	Perm.	Temp.	Second. ⁸
Wetland 1	45.627342 N -69.916532 W	PUB (formerly PFO)	N/A	3,508	N/A	N/A	3,508	N/A	N/A
TOTAL							3,508	0	0
<ol style="list-style-type: none"> 1. Palustrine Forested (PFO), Palustrine Scrub-Shrub (PSS), Palustrine Emergent (PEM), Palustrine Unconsolidated Bottom (PUB). Per Cowardin et al (available online: https://www.fws.gov/wetlands/documents/Classification-of-Wetlands-and-Deepwater-Habitats-of-the-United-States-2013.pdf) 2. The immediate loss of an aquatic ecosystem within the footprint of the fill. 3. Temporary direct impacts including temporary placement of fill or temporary alteration (grading, grubbing) in wetlands, and temporary placement of construction mats in wetlands that will be removed, and wetlands to be restored to pre-construction contours and vegetative conditions following construction. 4. Includes placement of new permanent fill in wetlands for access roads and permanent aboveground structures or impervious gravel surfaces. 5. Effects on aquatic ecosystems associated with a discharge of dredged or fill materials, but not resulting from the actual placement of the dredged or fill material into wetlands. 6. Includes impacts associated with the alteration of wetland vegetation through herbicide application or clearing of forested or scrub-shrub wetlands vegetation, using non-mechanized methods that avoid soil disturbance and without grubbing. 7. Secondary impacts plus direct temporary and permanent impacts are used to calculate permitting thresholds for state and federal agencies. 8. Overlapping secondary impacts (i.e., occurring within the same footprint) are not counted twice. 									

Alternatives Analysis Statement

There is no practical alternative to the proposed restoration activities. Due to the emergency nature of the response and the immediate need for human safety and infrastructure protection, the culverts were replaced immediately by CPKC’s response team. Culverts were set at ground elevation; however, remediation activities created the perched nature of the culverts, which will be corrected during these restoration activities.

Avoidance and Minimization

The Project has been designed to limit impacts to natural resources protected under the Clean Water Act (CWA). Due to Project siting requirements, infrastructure needs, and wetland configuration, the Project could not be entirely constructed without impacts to wetlands while meeting the Project purpose and needs. The Project purpose is to restore areas disturbed by the derailment to mimic pre-existing



conditions to the extent feasible. The Project will permanently impact areas protected under the CWA for the purpose of stream restoration and culvert inlet and outlet protection. The Project proposes to install rip rap inlet and outlet protection at the culverts to protect the railroad embankment and reduce the velocity and energy of the water, reducing the likelihood for streambed erosion of the receiving downstream reach.

The Project also proposes to construct a small water diversion berm as part of the restoration of the unnamed tributary to Little Brassua Lake and its associated wetlands. The berm will direct water towards the restored stream and is also intended to reduce erosion potential. Following the train derailment, the area near the railroad was excavated to remove impacted soils from petroleum products spilled. This berm is necessary to restore ground elevations to approximate pre-existing ground contours.

Wetland impacts have been avoided to the greatest extent practicable, but because the protective measures are at the culvert outfall, impacts to wetlands cannot be avoided. Direct, permanent impacts to wetlands are limited to 3,508 square feet for rip rap inlet and outlet protection and a diversion berm, designed to keep stream flows in the restored stream channel, as designed. (Sheet C-301 of the Restoration Plans, Attachment 4.) All other impacts to wetlands are solely for the purpose of remediation efforts and resource restoration. There is no covertime alteration in wetlands due to the impacts proposed. Tables 1-1 and 1-2 above summarize the restoration and impact amounts to wetlands due to construction of the Project.

The Project minimizes unavoidable impacts to wetlands, through various mitigation strategies. However, as noted in Section 1.1, the Project will result in only a small amount of wetland impact that is not restoration.

CPKC Train Derailment Stream Restoration Project, Sandwich Academy Grant Twp, Maine
Maine General Permit Application: Pre-Construction Notification
Land Use Planning Commission: Wetland Alteration and Shoreland Alteration Applications



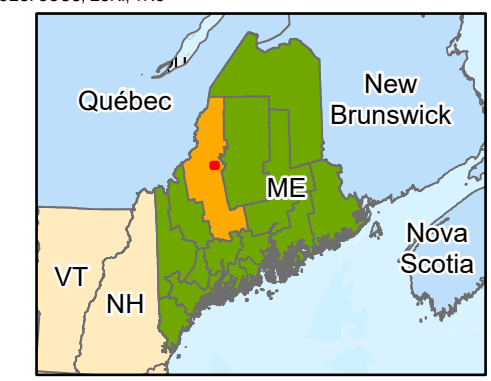
ATTACHMENT 2. MAPS




BASE MAP: GOOGLE IMAGERY SERVICE
DATA SOURCES: USGS, ESRI, TRC














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1" = 2,000'



PROJECT:		CPKC TRAIN DERAILMENT SANDWICH ACADEMY GRANT TOWNSHIP, MAINE	
TITLE: SITE LOCATION MAP			
DRAWN BY:	E. YPSILANTIS	PROJ. NO.:	546184.0000.0000
CHECKED BY:	J. FREDENBURG	FIGURE 1	
APPROVED BY:	M. BERGERON		
DATE:	APRIL 2024	 249 WESTERN AVE AUGUSTA, ME 04330 PHONE: 207-621-7000	
FILE:	Brassua_Derailment_EY.aprx		

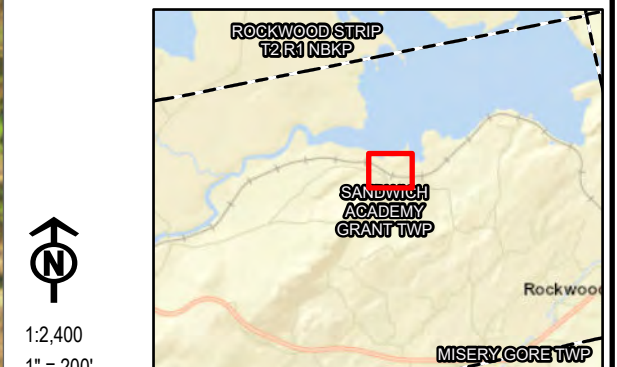
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SA-1142

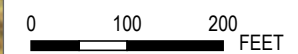
-  PROJECT AREA
-  BEAVER DAM
-  DISTURBED AREA
-  SEDIMENTATION AREA
-  DRIED NATURAL STREAM BED
- WETLAND BOUNDARIES
-  WETLAND AREA
-  DISTURBED WETLANDS
- STREAM LINE
-  STREAM CENTERLINE
-  BANK/EDGE
-  ESTIMATED ORIGINAL STREAM CHANNEL
-  LITTLE BRASSUA LAKE




BASE MAP: GOOGLE IMAGERY SERVICE
 DATA SOURCES: USGS, ESRI, TRC



















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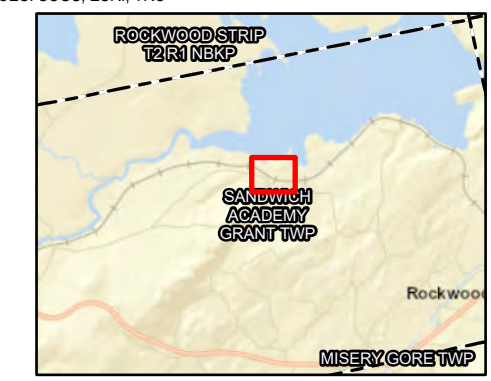


PROJECT: CPKC TRAIN DERAILMENT SANDWICH ACADEMY GRANT TOWNSHIP, MAINE	
TITLE: EXISTING CONDITIONS	
DRAWN BY: E. YPSILANTIS	PROJ. NO.: 546184.0000.0000
CHECKED BY: J. FREDENBURG	FIGURE 2
APPROVED BY: M. BERGERON	
DATE: APRIL 2024	
	
249 WESTERN AVE AUGUSTA, ME 04330 PHONE: 207-621-7000	
FILE:	Brassua_Derailment_EY.aprx

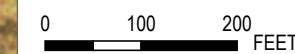
SA-1142


-  PROJECT AREA
-  BEAVER DAM
-  DISTURBED AREA
-  SEDIMENTATION AREA
-  DRIED NATURAL STREAM BED
- WETLAND BOUNDARIES
-  WETLAND AREA
-  DISTURBED WETLANDS
- STREAM LINE
-  STREAM CENTERLINE
-  BANK/EDGE
-  ESTIMATED ORIGINAL STREAM CHANNEL
-  LITTLE BRASSUA LAKE
- TOPOGRAPHICAL CONTOURS (FT)
-  1073.0 - 1092.0
-  1092.1 - 1110.0
-  1110.1 - 1133.0
-  1133.1 - 1166.0
-  1166.1 - 1195.0

BASE MAP: GOOGLE IMAGERY SERVICE
DATA SOURCES: USGS, ESRI, TRC

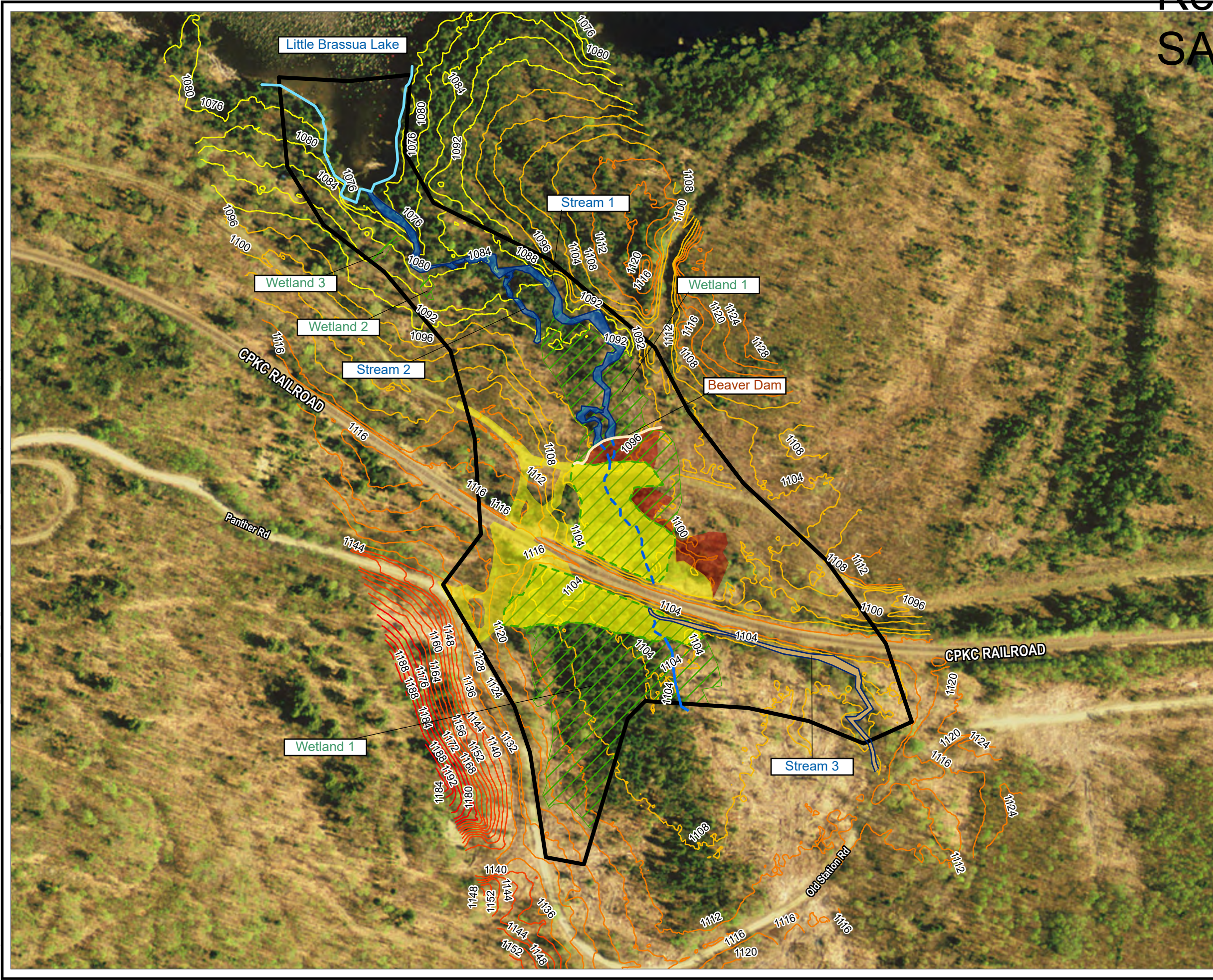


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1" = 200'



PROJECT: CPKC TRAIN DERAILMENT SANDWICH ACADEMY GRANT TOWNSHIP, MAINE	
TITLE: TOPOGRAPHICAL MAP	
DRAWN BY: E. YPSILANTIS	PROJ. NO.: 546184.0000.0000
CHECKED BY: J. FREDENBURG	FIGURE 3
APPROVED BY: M. BERGERON	
DATE: MAY 2024	
	
249 WESTERN AVE AUGUSTA, ME 04330 PHONE: 207-621-7000	
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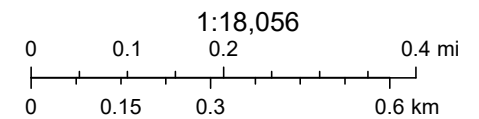
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- | | | |
|--------------------------|--|--|
| Towns | P-GP: Great Pond Protection | P-WL2: Scrub-shrub Wetlands Protection |
| LUPC Zones Layer | P-SL2: Shoreland - 75' Protection | P-WL3: Forested Wetlands Protection |
| M-GN: General Management | P-WL1: Wetlands of Special Significance Protection | Unorganized Territory Parcels |



Esri, NASA, NGA, USGS, FEMA, Esri Community Maps Contributors, Esri Canada, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/

Maine Land Use Planning Commission

FIGURE 4

CPKC Train Derailment Stream Restoration Project, Sandwich Academy Grant Twp, Maine
Maine General Permit Application: Pre-Construction Notification
Land Use Planning Commission: Wetland Alteration and Shoreland Alteration Applications



ATTACHMENT 3. PHOTOGRAPHS

CPKC Train Derailment
Sandwich Academy Grant Township, ME

Photograph: 1

Date: 12/20/2023

Direction: North

Description: Culvert inlet under CPKC embankment. The culverts are each 5' in diameter, and were installed immediately after the train derailment, to restore the railroad to a functioning condition.



Photograph: 2

Date: 12/20/2023

Direction: South

Description: Culvert outlet under CPKC embankment. Culverts were originally installed to grade, becoming perched after contaminated soil was removed. Grades will be brought back up to culvert outlet elevations during restoration.



CPKC Train Derailment Sandwich Academy Grant Township, ME

Photograph: 3

Date: 12/20/2023

Direction: Northwest

Description: Typical existing conditions of the stream that is to be restored. The stream flows south to north from the 5-foot diameter twin culverts, shown above. The areas adjacent to the stream will be restored to pre-existing wetland condition, in accordance with the restoration plan provided in this application.



Photograph: 4

Date: 12/20/2023

Direction: Southwest

Description: Typical existing conditions of the wetland on the south side of the railroad tracks, at the culvert inlet. The stream shown here, flows south into the 5-foot diameter twin culverts. The areas adjacent to the stream will be restored to pre-existing wetland condition, in accordance with the restoration plan provided in this application.



CPKC Train Derailment
Sandwich Academy Grant Township, ME

Photograph: 5

Date: 12/20/2023

Direction: Southwest

Description: Existing conditions of the wetland on the south side of the railroad tracks, at the culvert inlet. This wetland area will be restored to pre-existing wetland condition, in accordance with the restoration plan provided in this application.



CPKC Train Derailment Stream Restoration Project, Sandwich Academy Grant Twp, Maine
Maine General Permit Application: Pre-Construction Notification
Land Use Planning Commission: Wetland Alteration and Shoreland Alteration Applications



ATTACHMENT 4. PROJECT PLANS

CPKC RAILROAD

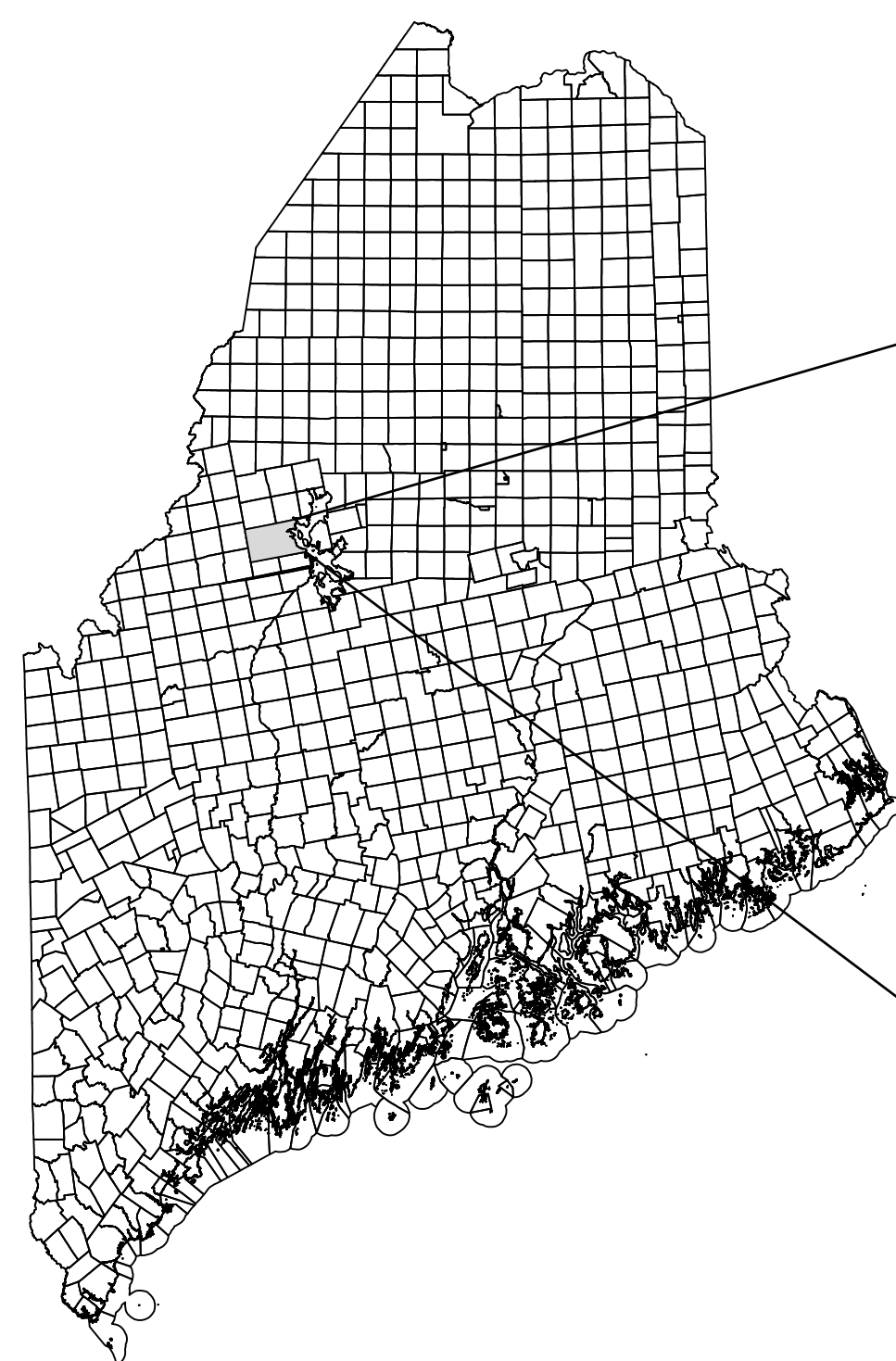
BRASSUA TRAIN DE-RAILMENT STREAM RESTORATION

**PREPARED FOR: CPKC
3420 MILLER AVE
DAVENPORT, IA 52802**

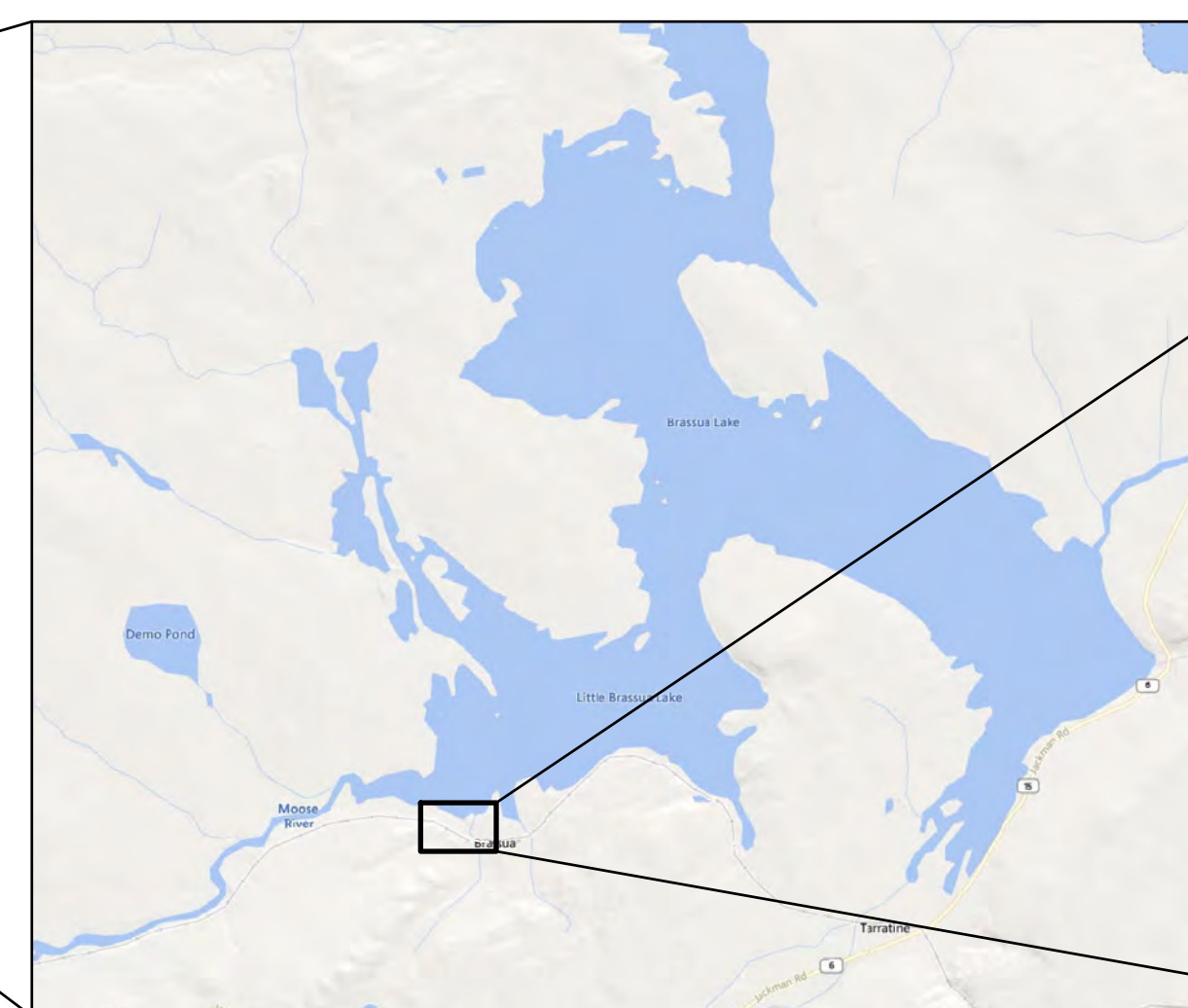
**PREPARED BY: TRC COMPANIES, INC.
AUGUSTA, ME**

DATE: JUNE 2024

SHEET INDEX	
SHEET NUMBER	SHEET TITLE
G-001	TITLE SHEET
G-002	GENERAL NOTES & LEGEND
G-003	EROSION CONTROL NOTES & DETAILS
C-200	SITE PREPARATION PLAN
C-300	STREAM RESTORATION - PLAN & PROFILE
C-301	WETLAND RESTORATION PLAN
C-302	WETLAND PLANTING PLAN
C-400	CIVIL DETAILS



MAINE



BRASSUA LAKE



SITE LOCATOR

PERMITTING



GENERAL NOTES

- 1. THE PROJECT HORIZONTAL COORDINATES SYSTEM IS BASED ON NAD83 MAINE STATE PLANE (US SURVEY FEET, WEST ZONE, ME83-WF). ELEVATIONS ARE BASED ON NAVD83 (US SURVEY FEET).
- 2. PROJECT PROPERTY BOUNDARIES AND EXISTING TOPOGRAPHY ARE BASED ON INFORMATION PROVIDED BY COLLIERS ENGINEERING AND DESIGN FOLLOWING A FIELD SURVEY CONDUCTED ON JUNE 16, 2023.
- 3. NATURAL RESOURCE DELINEATION WAS PERFORMED BY TRC ON MAY 18 AND 19, 2023.
- 4. DIGSAFE SHALL BE NOTIFIED A MINIMUM OF 72-HOURS PRIOR TO COMMENCING ANY EXCAVATION.
- 5. ALL WORK DETAILED ON THESE PLANS AND PERFORMED UNDER THIS CONTRACT SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS AND ANY APPLICABLE TECHNICAL REPORTS, WHERE INDICATED, STATE AND/OR LOCAL STANDARD SPECIFICATIONS SHALL APPLY.
- 6. THE CONTRACTOR SHALL ABIDE BY ALL LOCAL, STATE, AND FEDERAL LAWS, RULES AND REGULATIONS WHICH APPLY TO THE CONSTRUCTION OF THESE IMPROVEMENTS, INCLUDING APPLICABLE STATE AND FEDERAL REQUIREMENTS WITH RESPECT TO STORMWATER DISCHARGE.
- 7. ALL CONTRACTOR PERSONNEL, SUBCONTRACTORS, AND DELIVERY DRIVERS MUST BE AWARE OF AND FOLLOW ALL CPKC SAFETY PROTOCOLS NEAR THE ACTIVE RAILROAD.
- 8. PRIOR TO START OF RESTORATION ACTIVITIES, INSTALL COMPOST FILTER TUBES OR SILT FENCE AS DEPICTED ON PLANS TO ENSURE PROTECTION OF WETLANDS DURING RESTORATION ACTIVITIES.
- 9. THE CONTRACTOR IS RESPONSIBLE FOR PROTECTING ALL EXISTING ACCESS ROADS. ANY DAMAGE TO EXISTING ROADS CAUSED BY CONSTRUCTION ACTIVITY SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
- 10. TRC FIELD PERSONNEL WILL COORDINATE WITH CONTRACTORS ON WHERE TO PLACE BOOMS AND SILT CURTAINS IN THE LAKE.
- 11. RESTORATION ACTIVITIES SHALL BE LIMITED TO THE LIMITS OF DISTURBANCE SHOWN ON THE PLANS. ANY PROPERTY DAMAGED OUTSIDE OF THE PROJECT LIMITS SHALL BE REPAIRED TO CPKC'S SATISFACTION AT THE COST OF THE CONTRACTOR.
- 12. OVERNIGHT PARKING OF CONSTRUCTION EQUIPMENT SHALL NOT OBSTRUCT DRIVEWAYS OR DESIGNATED TRAFFIC LANES. THE CONTRACTOR SHALL NOT STORE ANY EQUIPMENT OR MATERIAL WITHIN THE RAILROAD RIGHT OF WAY.
- 13. IN ACCORDANCE WITH THE USAGE GENERAL PERMIT FOR THE STATE OF MAINE, GENERAL CONDITION 22, THE CONTRACTOR SHALL AVOID, TO THE MAXIMUM EXTENT PRACTICABLE, THE INTRODUCTION OR SPREAD OF INVASIVE OR OTHER UNACCEPTABLE PLANT OR ANIMAL SPECIES ON THE PROJECT SITE OR AREAS ADJACENT TO THE PROJECT SITE. FOR EXAMPLE, CONSTRUCTION MATS AND EQUIPMENT SHALL BE THOROUGHLY CLEANED AND FREE OF VEGETATION AND SOIL BEFORE AND AFTER USE. NO CULTIVARS, INVASIVE OR OTHER UNACCEPTABLE PLANT SPECIES WILL BE USED FOR MITIGATION OR FOR ANY OTHER AUTHORIZED ACTIVITIES PROPOSED ON THE SITE.
- 14. CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE FEDERAL, STATE, AND LOCAL LAWS AND REGULATIONS CONTROLLING THE POLLUTION OF THE ENVIRONMENT.
- 15. IT IS THE INTENT OF THESE PLANS THAT THE CONTRACTOR SHALL NOT PERFORM ANY WORK OUTSIDE THE IDENTIFIED PROJECT BOUNDARIES AND PERMITTED LIMITS OF DISTURBANCE. CONTRACTOR SHALL MINIMIZE DISTURBANCES TO WETLANDS AND STREAMS, TAKING CARE TO AVOID TRACK RUTTING BY USING MATS, AS WELL AS EMPLOYING OTHER BEST MANAGEMENT PRACTICES TO AVOID AND MINIMIZE IMPACTS TO WETLANDS AND STREAMS.
- 16. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING DRAINAGE THROUGHOUT THE CONSTRUCTION OF THE PROJECT.
- 17. ALL WORK IN OR ON SITE ACCESS ROADS SHALL CONFORM TO MAINE FOREST SERVICE SECTION 5 - LAND MANAGEMENT AND WATER CROSSINGS OF CHAPTER 27, STANDARDS FOR TIMBER HARVESTING AND RELATED ACTIVITIES WITHIN UNORGANIZED AND DEORGANIZED AREAS OF THE STATE.
- 18. PRIOR TO SEEDING, THE RESTORATION AREA SHALL BE REGRADED TO PROVIDE A UNIFORM SURFACE THAT MATCHES INTO ADJACENT GRADES AND MIMICS NATURAL CONDITIONS.
- 19. FOLLOWING REMOVAL OF FILL, ORGANIC TOPSOIL SHALL BE USED TO BRING THE EXCAVATED WETLAND MITIGATION AREA TO FINISH GRADE. AT A MINIMUM, THE MATERIAL SHALL MEET THE ORGANIC TOPSOIL SPECIFICATION INCLUDED ON THIS SHEET. ENVIRONMENTAL INSPECTOR SHALL INSPECT AND APPROVE ORGANIC TOPSOIL FOR COMPLIANCE WITH SPECIFICATION PRIOR TO INSTALLATION.
- 20. AFTER APPLICATION OF THE SEED MIX, THE WETLAND RESTORATION AREA WILL BE MULCHED WITH STRAW TO PROMOTE SEED SET, MOISTURE RETENTION, AND SEED GERMINATION.
- 21. FOLLOWING SEED INSTALLATION, THE WETLAND RESTORATION AREA WILL BE WATERED, IF NECESSARY, AS DIRECTED BY A QUALIFIED WETLAND SPECIALIST. CONTINUE TO WATER SEEDED AREAS AS NEEDED AND MAINTAIN ALL TEMPORARY EROSION CONTROL AND SEDIMENT BARRIERS UNTIL VEGETATION HAS BEEN ESTABLISHED OVER 90% OF THE AREA. RESEED SPARSELY VEGETATED AREAS AS NECESSARY.

HOUSEKEEPING NOTES

- CONTRACTOR SHALL MAINTAIN THE PROJECT SITE IN ACCORDANCE WITH THE FOLLOWING PERFORMANCE STANDARDS:
- 1. SPILL PREVENTION: CONTROLS SHALL BE IN PLACE TO PREVENT POLLUTANTS FROM BEING DISCHARGED FROM MATERIALS USED AND STORED ON-SITE. APPROPRIATE CONTROLS INCLUDE, BUT ARE NOT LIMITED TO, PROPER STORAGE PRACTICES THAT MINIMIZE EXPOSURE OF MATERIALS TO STORMWATER, AND APPROPRIATE SPILL PREVENTION, CONTAINMENT, AND RESPONSE PLANNING AND IMPLEMENTATION.
- 2. GROUNDWATER PROTECTION: DURING CONSTRUCTION, THE CONTRACTOR MAY NOT STORE OR HANDLE LIQUID PETROLEUM PRODUCTS AND OTHER HAZARDOUS MATERIALS WITH THE POTENTIAL TO CONTAMINATE GROUNDWATER IN AREAS OF THE PROJECT SITES DRAINING TO AN INFILTRATION AREA OR WITHIN 100 FEET OF A CRITICAL RESOURCE AREA OR STREAM, DIKES, BERMS, BUNDS, AND OTHER FORMS OF SECONDARY CONTAINMENT THAT PREVENT DISCHARGE TO GROUNDWATER MAY BE USED TO ISOLATE PORTIONS OF THE SITE FOR THE PURPOSES OF STORING AND HANDLING LIQUID HAZARDOUS MATERIALS.
- 3. FUGITIVE SEDIMENT AND DUST: CONTRACTOR SHALL TAKE ALL NECESSARY ACTIONS TO ENSURE THAT ACTIVITIES DO NOT RESULT IN NOTICABLE EROSION OF SOILS OR FUGITIVE DUST EMISSIONS DURING OR AFTER CONSTRUCTION. OPERATIONS DURING DRY MONTHS THAT EXPERIENCE FUGITIVE DUST PROBLEMS SHOULD WET DOWN UNPAVED ACCESS ROADS ONCE A WEEK OR MORE FREQUENTLY AS NEEDED WITH A WATER ADDITIVE. OIL MAY NOT BE USED FOR DUST CONTROL. CONTRACTOR SHALL MONITOR VEHICLES ENTERING AND EXITING THE PROJECT SITE FOR EVIDENCE OF TRACKING MUD ONTO PUBLIC OR PRIVATE ROADWAYS OUTSIDE THE WORK AREA. IF NECESSARY, CONTRACTOR SHALL PROVIDE MEANS FOR SWEEPING AND CLEANING ROAD AREAS EXPERIENCING PROJECT RELATED TRACKING. IF OFF-SITE TRACKING OCCURS ON PUBLIC ROADS, THEY SHOULD BE SWEEP IMMEDIATELY AND NO LESS THAN ONCE A WEEK AND PRIOR TO SIGNIFICANT STORM EVENTS. DURING THE MUD SEASON IT MAY BE NECESSARY TO INCREASE THE SIZE OF STABILIZED CONSTRUCTION ENTRANCES OR PROVIDE A WHEEL WASHING STATION.
- 4. DEBRIS AND OTHER MATERIALS: CONTRACTOR SHALL MANAGE ALL LITTER, CONSTRUCTION DEBRIS, AND CONSTRUCTION CHEMICALS EXPOSED TO STORMWATER TO PREVENT MATERIALS FROM BECOMING A SOURCE OF POLLUTION. CONTRACTOR SHALL MINIMIZE THE EXPOSURE OF CONSTRUCTION DEBRIS, BUILDING AND LANDSCAPING MATERIALS TO PRECIPITATION AND STORMWATER RUNOFF. THESE MATERIALS MUST BE PREVENTED FROM BECOMING A POLLUTANT SOURCE.
- 5. TRENCH OR FOUNDATION DEWATERING: TRENCH DEWATERING IS THE REMOVAL OF WATER FROM TRENCHES, FOUNDATIONS, COFFER DAMS, PONDS, SUMPS, BASINS, AND OTHER AREAS WITHIN THE CONSTRUCTION AREA THAT RETAIN WATER AFTER EXCAVATION. IN MOST CASES THE COLLECTED WATER IS HEAVILY SILTED AND HINDERS CORRECT AND SAFE CONSTRUCTION PRACTICES. THE CONTRACTOR SHALL REMOVE COLLECTED WATER FROM THE PONDED AREAS, EITHER THROUGH GRAVITY OR PUMPING, IN A MANNER THAT SPREADS IT THROUGH NATURAL WOODED BUFFERS OR TO AREAS THAT ARE SPECIFICALLY DESIGNED TO COLLECT THE MAXIMUM AMOUNT OF SEDIMENT POSSIBLE (E.G. COFFERDAM SEDIMENT BASIN). THE CONTRACTOR SHALL AVOID PRACTICES THAT ALLOW SEDIMENT LADEN WATER FROM DEWATERING TO FLOW OVER DISTURBED AREAS OF THE PROJECT SITES. OTHER MEASURES OR METHODS MAY BE UTILIZED AS REVIEWED AND APPROVED BY THE ENGINEER AND, IF NECESSARY, THE MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION.
- 6. AUTHORIZED NON-STORMWATER DISCHARGES: THE CONTRACTOR SHALL IDENTIFY AND PREVENT CONTAMINATION BY NON-STORMWATER DISCHARGES. WHERE ALLOWED NON-STORMWATER DISCHARGES EXIST, THEY MUST BE IDENTIFIED AND STEPS SHALL BE TAKEN TO ENSURE IMPLEMENTATION OF APPROPRIATE POLLUTION PREVENTION MEASURES FOR THE NON-STORMWATER COMPONENTS OF THE DISCHARGE. AUTHORIZED NON-STORMWATER DISCHARGES ARE: DISCHARGES FROM FIREFIGHTING ACTIVITY, FIRE HYDRANT FLUSHING, VEHICLE WASHING IF DETERGENTS ARE NOT USED AND WASHING IS LIMITED TO THE EXTERIOR OF VEHICLES, DUST CONTROL RUNOFF IN ACCORDANCE WITH PERMIT CONDITIONS AND APPENDIX C(3) OF CHAPTER 500, ROUTINE EXTERNAL BUILDING WASHDOWN (EXCLUDING PAINT REMOVAL AND USE OF DETERGENTS), PAVEMENT WASHWATER (EXCLUDING AREAS OF SPILLS OR LEAKS OF TOXIC/HAZARDOUS MATERIALS AND USE OF DETERGENTS), UNCONTAMINATED AIR CONDITIONING OR COMPRESSOR CONDENSATE, UNCONTAMINATED GROUNDWATER OR SPRING WATER, FOUNDATION OR FOOTING DRAIN-WATER WHERE FLOWS ARE NOT CONTAMINATED, UNCONTAMINATED EXCAVATION DEWATERING PER APPENDIX C(5) OF CHAPTER 500, POTABLE WATER SOURCES INCLUDING WATERLINE FLUSHING, AND LANDSCAPE IRRIGATION.
- 6. UNAUTHORIZED NON-STORMWATER DISCHARGES: THE CONTRACTOR SHALL IDENTIFY AND PREVENT CONTAMINATION BY UNAUTHORIZED NON-STORMWATER DISCHARGES. UNAUTHORIZED STORMWATER DISCHARGES INCLUDE, BUT ARE NOT LIMITED TO, FUELS OR HAZARDOUS SUBSTANCES AND DETERGENTS USED IN VEHICLE AND EQUIPMENT WASHING.
- 7. ADDITIONAL REQUIREMENTS: COMPLETION OF THE WORK WILL REQUIRE FREQUENT CROSSINGS OF THE CPKC RAIL RIGHT OF WAY. CONTRACTOR SHALL COORDINATE AND MAINTAIN CONTINUOUS COMMUNICATION WITH CPKC THROUGHOUT THE LIFETIME OF THE PROJECT TO ENSURE THE RESTORATION EFFORTS DO NOT INTERFERE WITH CPKC RAIL OPERATIONS.

LEGEND

- SURVEYED PROPERTY BOUNDARY
- APPROXIMATE ABUTTING PROPERTY BOUNDARY
- RIGHT-OF-WAY LINE
- ANGLE POINT
- AT OR BELOW GRADE
- DELINEATED STREAM
- EXISTING CULVERT
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- EXISTING SPOT ELEVATION
- EXISTING TREES AND/OR BRUSH
- PROPOSED MINOR CONTOUR
- PROPOSED MAJOR CONTOUR
- EXISTING RAILROAD
- DELINEATED VERNAL POOL
- DELINEATED WETLAND
- PROPOSED STREAM BOUNDARY
- LIMITS OF DISTURBANCE
- PROPOSED SILT FENCE
- PROPOSED STREAM DIVERSION
- PROPOSED SANDBAG COFFERDAM
- PROPOSED COIR LOGS

WATER MANAGEMENT NOTES

- 1. IN-STREAM WORK SHALL BE CONDUCTED IN THE DRY TO THE EXTENT PRACTICABLE.
- 2. CONTRACTOR SHALL STOP WORK IN THE STREAM AREA IMMEDIATELY IF WATER ENTERS THE COFFERDAM EMERGENCY SPILLWAY.
- 3. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING A MINIMUM OF TWO PUMPS CAPABLE OF PERFORMING NECESSARY DEWATERING ACTIVITIES. PUMPS SHALL HAVE A CAPACITY GREATER THAN OR EQUAL TO 3,880 GALLONS PER MINUTE (GPM), EACH.
- 4. PUMPS SHALL DISCHARGE INTO THE SEDIMENT TRAP DEWATERING AREA AS SHOWN ON SHEET C-200. DOWNGRADE OF THE PROPOSED WORK AREA PUMP HOSES SHALL BE ROUTED THROUGH THE EXISTING CULVERT IN ORDER TO NOT INTERFERE WITH RAILWAY TRAFFIC.
- 5. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING A SWALE/SPILLWAY IN THE EVENT OF CULVERT FLOW OR AS NECESSARY. THE SWALES SHALL BE STABILIZED APPROPRIATELY. THE SWALE IS SHOWN ON SHEET C-200 AND PROVIDED AS DETAIL 9 ON SHEET G-003.

PROJECT SCHEDULE

ALL IN-STREAM WORK SHALL BE CONDUCTED DURING THE LOW FLOW TIME OF YEAR WORK WINDOW SET FORTH BY THE U.S. ARMY CORPS OF ENGINEERS, BETWEEN JULY 15 AND SEPTEMBER 30.

SITE ACCESS NOTES

- 1. EXISTING SITE ACCESS ROADS ARE OWNED BY WEYERHAEUSER. ALL WORK IN OR ON SITE ACCESS ROADS SHALL CONFORM TO MAINE FOREST SERVICE SECTION 5 - LAND MANAGEMENT AND WATER CROSSINGS OF CHAPTER 27, STANDARDS FOR TIMBER HARVESTING AND RELATED ACTIVITIES WITHIN UNORGANIZED AND DEORGANIZED AREAS OF THE STATE.
- 2. CONTRACTOR IS RESPONSIBLE FOR INSPECTING AND DOCUMENTING CONDITIONS OF SITE ACCESS ROADS PRIOR TO COMMENCEMENT OF WORK. CONTRACTOR IS RESPONSIBLE FOR RESTORING SITE ACCESS ROADS TO PRE-WORK CONDITIONS BEFORE DEMOBILIZING FROM THE SITE. CONTRACTOR SHALL NOTIFY THE OWNER AND ENGINEER IMMEDIATELY IF NORMAL USE BY CONSTRUCTION VEHICLES IS RESULTING IN RUTS, WASHBOARDING, OR OTHER DAMAGE BEYOND WHAT CAN BE REPAIRED WITH MINIMAL REGRADE EFFORT.
- 3. THE ONLY ROUTE PERMITTED FOR SITE ACCESS IS FROM THE WEST STATE ROUTE 6 / 15 TO DEMO ROAD, TO OTTER POND ROAD, TO PANTHER ROAD APPROACHING THE SITE FROM THE ME. ACCESS FROM OLD STATION ROAD (TO THE EAST OF THE PROJECT SITE) IS PROHIBITED.

RESTORATION SEQUENCE

Table with 4 columns: RESTORATION METHOD NUMBER, HATCH, IMPACT TYPE, and RESTORATION ACTIVITIES. Methods include buried construction mats, stream restoration, wetland restoration areas, wetland sedimentation areas, and upland sedimentation areas.

NOTES: 1. RESTORATION METHODS 1 AND 2 SHALL OCCUR IN SEQUENCE BEFORE METHODS 3-5. CONTRACTOR SHALL COORDINATE AND FOLLOW DIRECTION OF TRC FIELD PERSONNEL ON SITE.

ORGANIC TOPSOIL SPECIFICATIONS

- ORGANIC TOPSOIL SHALL, AT A MINIMUM, MEET THE FOLLOWING SPECIFICATIONS:
- 1. LOW HYDRAULIC CONDUCTIVITY (0.1-0.01 FT/DAY).
- 2. MORE THAN 15% SILT (PASSING THE #200 SIEVE) BUT WITH CLAY SIZE PORTION THAT IS LESS THAN 2%.
- 3. SOURCED FROM INVASIVE-FREE UPLANDS OR MANUFACTURED FROM COMPOSTED MATERIAL WITH A MINIMUM ORGANIC CARBON CONTENT OF 4-12% (I TO 21 PERCENT ORGANIC MATTER) ON A DRY WEIGHT BASIS.
- 4. SUBJECTED TO LABORATORY ANALYSIS TO PROVIDE RECOMMENDATIONS FOR AMENDMENTS/FERTILIZER NECESSARY TO ACHIEVE DESIRED GROWTH.
- 5. TOPSOIL SHALL BE THERMALLY REFINED OR FREE OF INVASIVE SEED.

ORGANIC TOPSOIL MAY BE MANUFACTURED USING A BLEND OF COMPOST, SAND AND FINE SOILS (SUCH AS RICH LOAMY SAND WITH LOOSE FRAGILE CONSISTENCY).

SOIL MANAGEMENT NOTES

- 1. DURING RESTORATION EARTHWORK, TRC WILL OBSERVE SOIL CONDITIONS FOR VISUAL AND/OR OLFACTORY INDICATIONS OF RESIDUAL PETROLEUM IMPACTS. IF POTENTIALLY IMPACTED MATERIAL IS IDENTIFIED, TRC WILL FIELD SCREEN THE SOIL IN ACCORDANCE WITH MOEP PROCEDURES AND REGULATIONS. IF PRELIMINARY SCREENING CONFIRMS THE PRESENCE OF PETROLEUM-IMPACTED SOIL, THE IMPACTED MATERIAL WILL BE REMOVED USING EITHER HAND TOOLS OR ON-SITE EQUIPMENT, DEPENDING ON THE EXTENT OF THE IMPACTED MATERIAL AND ITS LOCATION.
- 2. DURING EXCAVATION, TRC WILL COLLECT EXCAVATION SCREENING SAMPLES FOR FIELD-SCREENING TO DIRECT SOIL EXCAVATION AND CONFIRM THAT FIELD SCREENING OBJECTIVES ARE MET PRIOR TO TERMINATING THE EXCAVATION. EXCAVATIONS WILL BE ADVANCED UNTIL VISUAL/OLFACTORY EVIDENCE AND FIELD-SCREENING RESULTS INDICATE THAT THE IMPACTED SOIL HAS BEEN REMOVED TO THE EXTENT PRACTICABLE. AT THE CONCLUSION OF THE EXCAVATION, TRC WILL COLLECT CONFIRMATION SCREENING SAMPLES TO VERIFY AREAS OF THE EXCAVATION WHERE CLEANUP OBJECTIVES HAVE BEEN REACHED OR WHERE SITE LIMITATIONS PREVENT FURTHER EXCAVATION.
- 3. EXCAVATED SOIL WILL BE TEMPORARILY STOCKPILED ON-SITE PENDING PROPER OFF-SITE REMOVAL AND DISPOSAL. EXCAVATED SOIL WILL BE STOCKPILED ATOP POLYETHYLENE SHEETING (AT LEAST 6-MIL GRADE) WITH APPROPRIATE EROSION CONTROLS IN PLACE, INCLUDING COVERING AND/OR STORMWATER RUNOFF DETERRENENTS. THE STOCKPILE WILL BE COVERED AT THE END OF EACH WORK SHIFT AND WHEN ACCESS IS NOT NECESSARY FOR EXTENDED PERIODS OF TIME.
- 4. THE TRANSFER OF SOIL FROM THE EXCAVATION TO THE STOCKPILE AREA WILL BE CONDUCTED IN SUCH A MANNER AS TO PREVENT THE SPREAD OF CONTAMINATED MATERIALS.
- 5. THE STOCKPILED SOIL WILL BE STAGED IN A LOCATION PROXIMAL TO THE RAIL LINE AND WITHIN THE CPKC RIGHT-OF-WAY WHERE FEASIBLE TO ALLOW FOR FUTURE REMOVAL VIA A SUITABLE TRANSPORT VEHICLE. SPECIFIC STOCKPILE LOCATION WILL DEPEND ON THE PHASE OF RESTORATION ACTIVITIES AND SITE CONDITIONS AT THE TIME OF THE REMOVAL EFFORT.
- 6. STOCKPILED SOIL WILL EITHER BE 1) LOADED INTO RAIL CONTAINERS AND TRANSPORTED TO CPKC'S JACKMAN YARD, WHERE IT WILL BE TRANSFERRED INTO ROLL-OFF CONTAINERS FOR SHIPMENT TO A LICENSED RECEIVING FACILITY; 2) LOADED DIRECTLY INTO ROLL-OFF CONTAINERS AND/OR TRAILERS ON-SITE FOR DIRECT SHIPMENT TO A LICENSED RECEIVING FACILITY; OR 3) AN ALTERNATIVE DISPOSAL PROCEDURE THAT IS LOGISTICALLY FEASIBLE AT THE TIME OF SOIL REMOVAL.
- 7. IF SOIL IS BEING TRANSPORTED OFF-SITE, THE PROPER BILLS-OF-LADING AND/OR MANIFESTS, SOIL SHIPPING LOGS, OR OTHER WASTE TRANSPORTATION PAPERS SHALL ACCOMPANY THE SHIPMENT. ACCEPTANCE LETTERS AND DISPOSAL TICKETS FROM THE LANDFILL OR TREATMENT FACILITY WILL BE OBTAINED FOR ANY OFF-SITE SOIL DISPOSAL. DISPOSAL DOCUMENTATION WILL BE MAINTAINED IN THE PROJECT FILES.
- 8. THE POTENTIAL CONTAMINANT OF CONCERN IN SOIL AND GROUNDWATER AT THE DERAILMENT SITE IS PETROLEUM (DIESEL FUEL). AS SUCH, WORKERS SHOULD WEAR STANDARD PERSONAL PROTECTIVE EQUIPMENT TYPICAL FOR USE IN CONSTRUCTION, SUCH AS GLOVES, LONG PANTS, STURDY WORK BOOTS, AND EYE PROTECTION WHEN WORKING WITH IMPACTED SOIL OR GROUNDWATER. WORKERS SHOULD AVOID DERMAL CONTACT, INGESTION AND INHALATION OF DUST OR PARTICULATES DURING WORK, TO THE EXTENT PRACTICABLE, WHILE PERFORMING WORK IN THESE AREAS.
- 9. ALL EQUIPMENT THAT COMES IN CONTACT WITH POTENTIALLY IMPACTED SOIL OR GROUNDWATER NEEDS TO BE DECONTAMINATED AND VISUALLY FREE OF SOIL AND/OR GROUNDWATER BEFORE IT IS REMOVED FROM THE SITE. IF EQUIPMENT IS ALREADY VISUALLY FREE OF SOIL AND/OR GROUNDWATER, DECONTAMINATION MAY NOT BE NECESSARY. CLOTHS, RAGS, OR HEAVY-DUTY PAPER TOWELS USED IN DECONTAMINATION MAY BE DISPOSED OF IN THE REGULAR WASTE STREAM.
- 10. IN GENERAL, CONTAMINATION OF PERSONNEL SHALL BE PREVENTED THROUGH THE USE OF STANDARD PPE. AT MINIMUM, NITRILE GLOVES SHALL BE WORN DURING CONTACT WITH IMPACTED SOILS IN ADDITION TO OTHER LEVEL D PPE.
- 11. IF PETROLEUM-IMPACTED SOIL IS REMOVED DURING RESTORATION EARTHWORK, TRC WILL DOCUMENT THESE ACTIVITIES IN A BRIEF REPORT CONTAINING A SUMMARY OF THE COMPLETED REMOVAL ACTIONS, DOCUMENTATION OF FIELD SCREENING RESULTS, AND TABULATED ANALYTICAL DATA FOR ALL CONFIRMATION LABORATORY SAMPLES.

SEED AND MULCH SPECIFICATIONS

Table with columns: SEED MIX NAME, SEED MIX COMPONENTS, LB/ACRE. Includes Temporary and Permanent Seed Mixes for New England Wetland and Wildlife Mix (Upland and Wetland).

SUMMARY OF TEMPORARY AND PERMANENT MULCH APPLICATION REQUIREMENTS

Table with columns: CONDITION, TIMING, MULCH TYPE, APPLICATION RATES. Details requirements for inactive areas, construction workspace, and exposed areas.

Table with columns: CONDITION, TIMING, MULCH TYPE, APPLICATION RATES. Details requirements for permanent mulch on exposed areas after seeding.

SUMMARY OF SEEDING REQUIREMENTS

Table with columns: CONDITION, TIMING, SEED MIX. Details requirements for temporary and permanent seeding.

- NOTES: 1. WEATHER CONDITIONS PERMITTING. 2. AREAS THAT DO NOT SUCCESSFULLY REVEGETATE WITHIN APPROPRIATE PERIOD OF TIME WILL BE RESEED AS NECESSARY. 3. LOOSEN COMPACTED SOIL TO A MINIMUM DEPTH OF 4 INCHES. 4. TOP DRESS WITH 4 TO 6 INCHES LOAM, AS NEEDED. 5. LIGHTLY RAKE AFTER SEEDING.

MULCH ANCHORING REQUIREMENTS

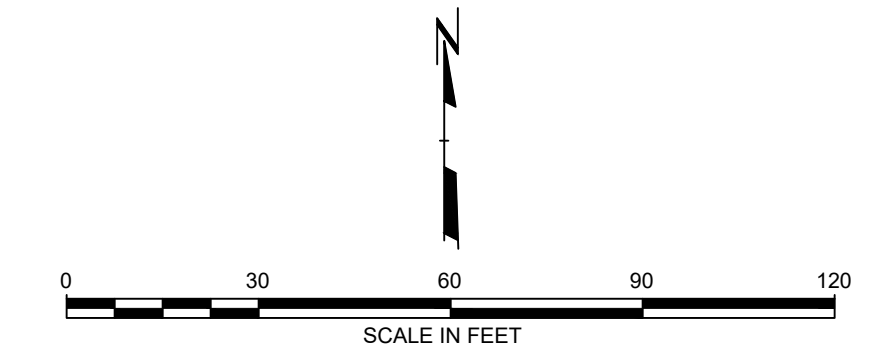
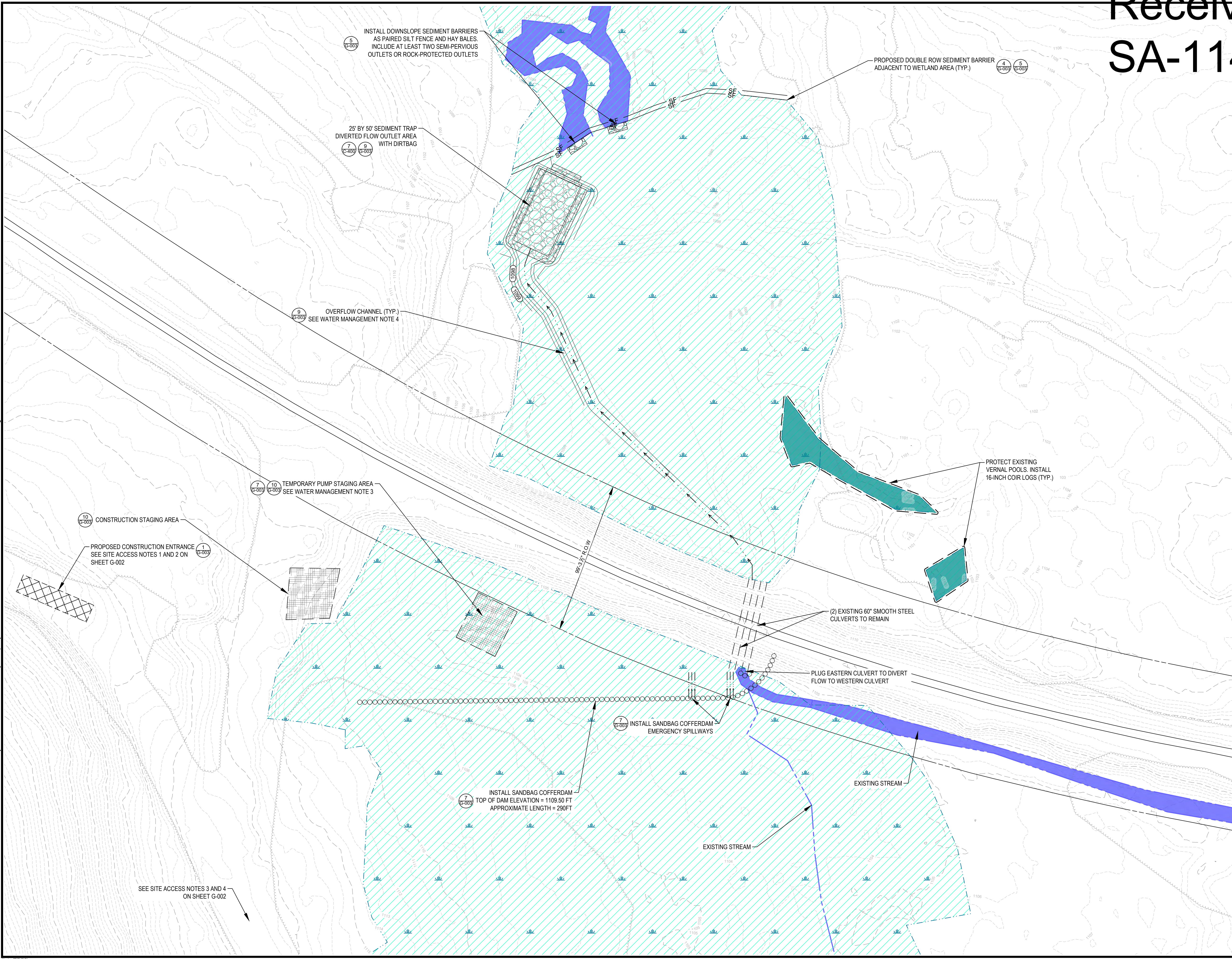
- ON SLOPES GREATER THAN 3 PERCENT, STRAW MULCH WILL BE FIRMLY ANCHORED INTO THE SOIL UTILIZING ONE OF THE FOLLOWING METHODS: -CRIMPING WITH A STRAIGHT OR NOTCHED MULCH CRIMPING TOOL (FARM DISCS WILL NOT BE ALLOWED); -TRACK WALKING WITH DEEP-CLEATED EQUIPMENT OPERATING UP AND DOWN THE SLOPE (MULCH CRIMPED PERPENDICULAR TO THE SLOPE) ON SLOPES <25 PERCENT; -APPLICATION OF MULCH NETTING; -APPLICATION OF 500 LB./ACRE OF WOOD FIBER MULCH OVER STRAW/HAY MULCH; AND -COMMERCIALY AVAILABLE TACKIFIERS (EXCEPT WITHIN 100 FEET OF WATERBODIES OR WETLANDS).

PROJECT: CPKC RAILROAD BRASSIA TRAIN DE-RAILMENT STREAM RESTORATION SANDWICH ACDMY GRANT TWP, SOMERSET COUNTY, ME. TITLE: PERMITTING AND LEGEND. DRAWN BY: TRC. CHECKED BY: TND. APPROVED BY: TND. DATE: JUNE 2024. FILE NO.: 548184 - G-SHEETS.dwg.

SA-1142

- LEGEND
- RIGHT-OF-WAY LINE
 - DELINEATED STREAM
 - EXISTING CULVERT
 - 280 EXISTING MAJOR CONTOUR
 - 278 EXISTING MINOR CONTOUR
 - EXISTING TREES AND/OR BRUSH
 - EXISTING RAILROAD
 - DELINEATED VERNAL POOL
 - DELINEATED WETLAND
 - SF PROPOSED SILT FENCE
 - PROPOSED TEMPORARY STREAM DIVERSION
 - PROPOSED SANDBAG COFFERDAM
 - PROPOSED COIR LOGS

2024 - USER: C:\dwg\1 - ATTACHED REF: 546184 - SURVEY: 2007178A - NATURAL RESOURCES - ATTACHED IMAGES: 2007178A_200612_ortho.mxd; DRAWING NAME: \AUGUSTA\Environmental\RMID\ENV RMD Projects\Canadian Pacific Railway Company\546184 - CP Brassua Restoration - T2R1.ME\10-DWG\546184 - BASE.dwg --- PLOT DATE: June 18, 2024 - 9:17AM --- LAYOUT: C-200 SITE PREPARATION PLAN

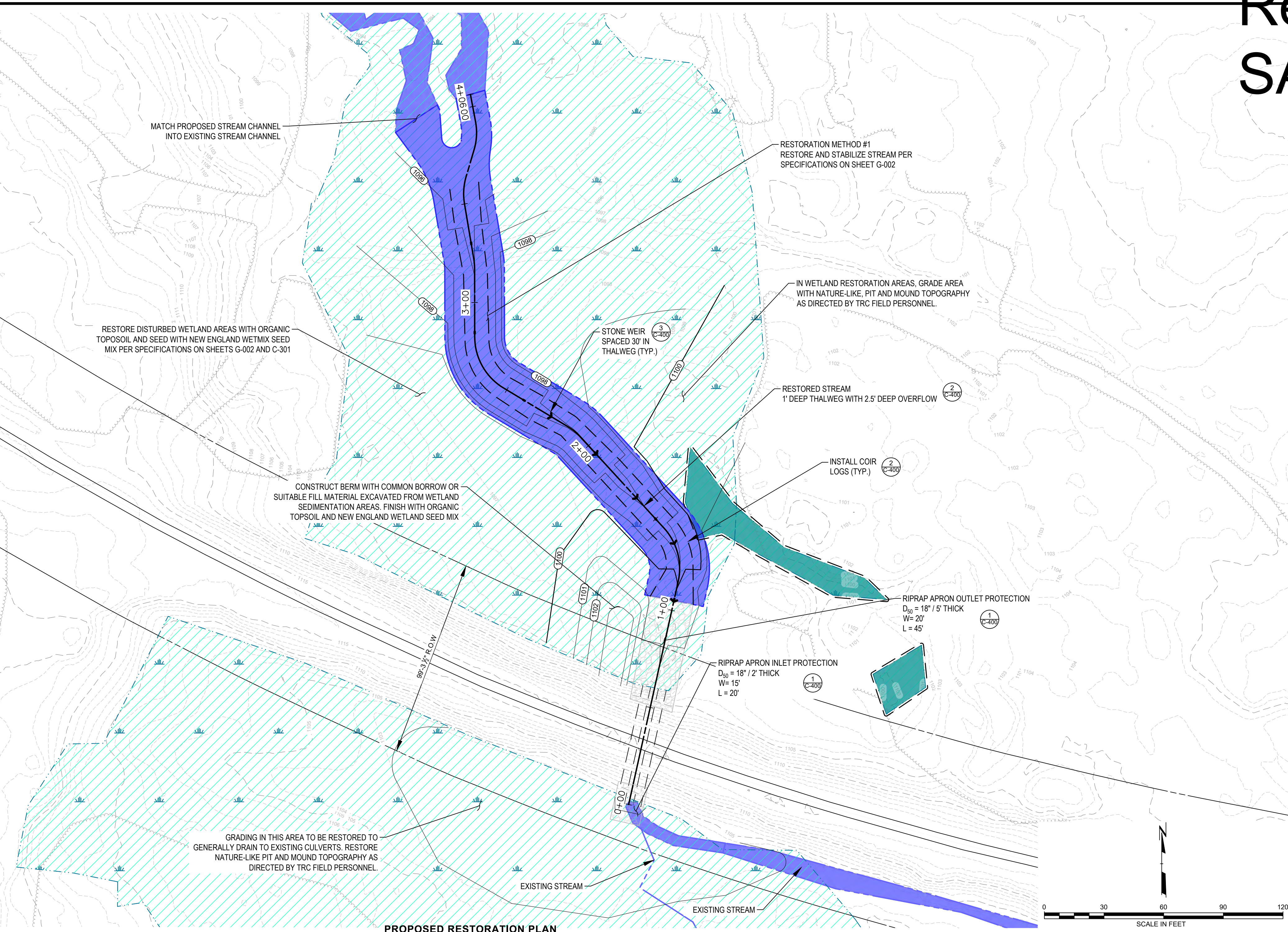


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NO.	BY	DATE	REVISION	APPD.
PROJECT: CPKC RAILROAD BRASSUA TRAIN DE-RAILMENT STREAM RESTORATION SANDWICH ACDMY GRANT TWP, SOMERSET COUNTY, ME				
TITLE: PERMITTING PLAN				
DRAWN BY: TRC		PROJ. NO.: 594641		
CHECKED BY: TND		APPROVED BY: TND		
DATE: JUNE 2024		C-200		
		249 Western Ave. Augusta, ME 04330 Phone: 207.621.7000 www.trccompanies.com		
FILE NO:		546184 - BASE.dwg		

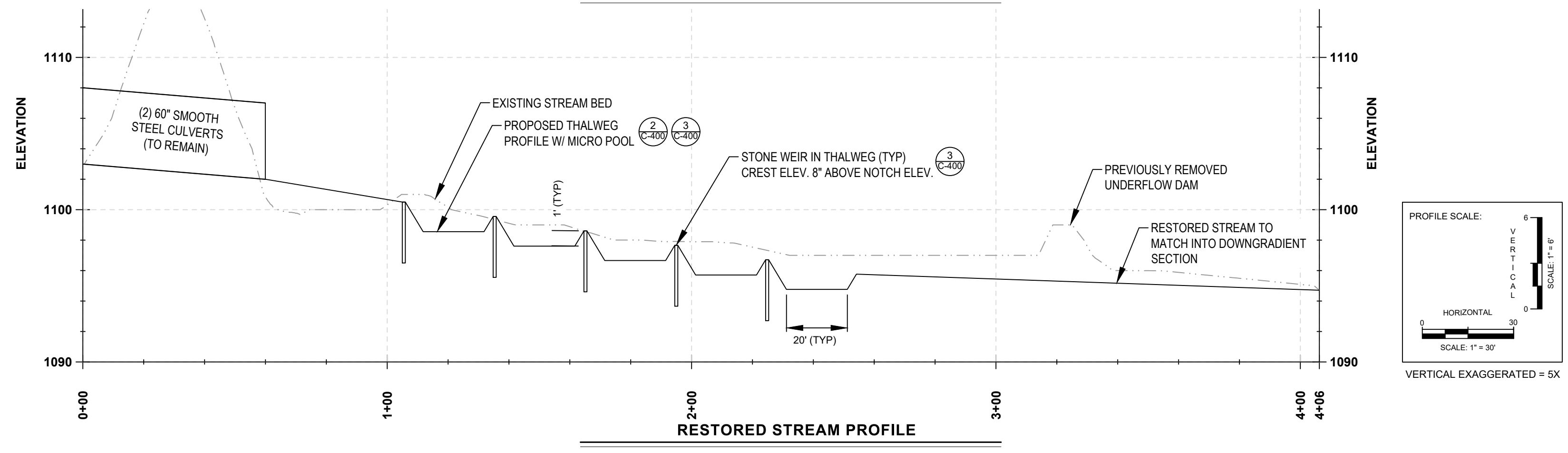
LEGEND

(---)	RIGHT-OF-WAY LINE
(---)	PROPOSED MINOR CONTOUR
(---)	PROPOSED MAJOR CONTOUR
(---)	PROPOSED COIR LOGS

2/2/24 - USER: C:\dwg1 - ATTACHED REFS: 546184 - SURVEY REF: 546184 - NATURAL RESOURCES --- ATTACHED IMAGES: 20207678A_20612.ctb; 20207678A_20612.ctb; 20207678A_20612.ctb
 DRAWING NAME: \AUGUSTIA\VF2\Environmental\RMID\ENV RMD Projects\Canadian Pacific Railway Company\546184 - CP Brassua Restoration - T2R1.ME\10-DWG\546184 - BASE.dwg --- PLOT DATE: June 18, 2024 - 9:18AM --- LAYOUT: C-300 STREAM RESTORATION - PLAN & PROFILE



- STREAM RESTORATION NOTES**
1. THE STREAM CHANNEL SHALL BE CONSTRUCTED PER THIS SHEET AND PER THE DETAIL SHOWN ON SHEET C-400.
 2. THE STREAM CHANNEL SHALL BE RESTORED PER RESTORATION METHOD #1 ON SHEETS G-002 AND C-301.
 3. ONCE STREAM CHANNEL CONSTRUCTION AND STABILIZATION IS COMPLETE, TEMPORARY DEWATERING STRUCTURES CAN BE REMOVED AND FLOW RETURNED TO THE STREAM CHANNEL DURING SUBSEQUENT WETLAND RESTORATION ACTIVITIES.



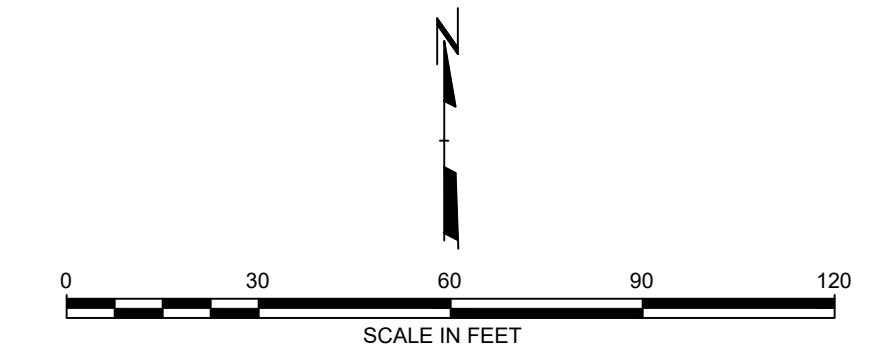
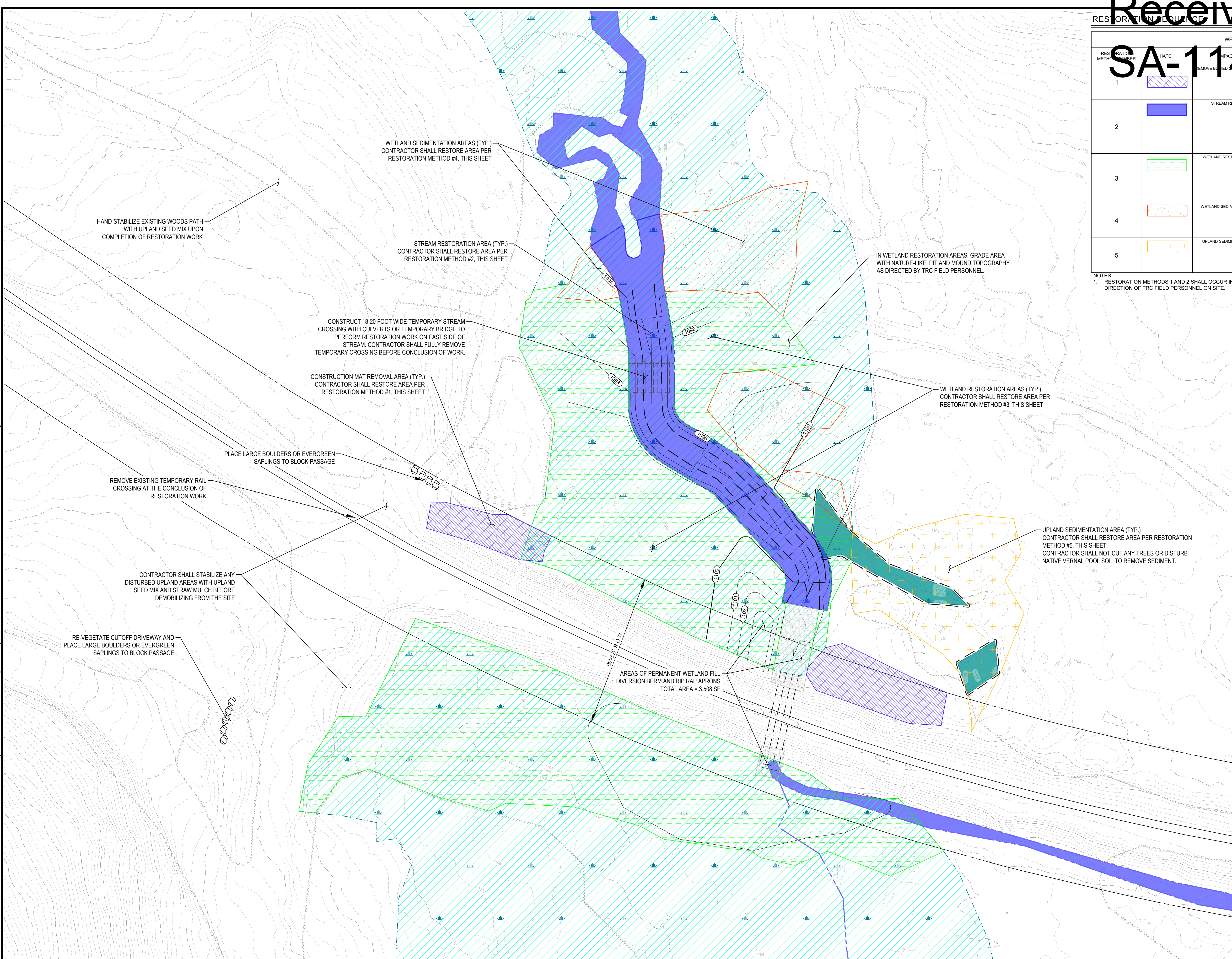
PROJECT:				
CPKC RAILROAD				
BRASSUA TRAIN DE-RAILMENT				
STREAM RESTORATION				
SANDWICH ACDMY GRANT TWP, SOMERSET COUNTY, ME				
TITLE: STREAM RESTORATION - PLAN & PROFILE				
DRAWN BY: TRC		PROJ. NO: 594641		
CHECKED BY: TND				
APPROVED BY: TND				
DATE: JUNE 2024				
		C-300		
FILE NO:		546184 - BASE.dwg		
TRC		249 Western Ave. Augusta, ME 04330 Phone: 207.621.7000 www.trccompanies.com		

RESTORATION SPECIFICATIONS

RESTORATION METHOD NUMBER	HATCH	IMPACT	RESTORATION ACTIVITIES
1		REMOVE BARRIERS TO FISH PASSAGE	<ul style="list-style-type: none"> CONTRACTOR SHALL REMOVE ALL BARRIERS TO FISH PASSAGE IN NOTED AREAS. BARRIERS AND SURROUNDING SOILS MAY BE CONTAMINATED. ANY CONTAMINATED MATERIALS MUST BE PROPERLY DISPOSED OF. AFTER MATS AND IMPACTED SOILS ARE REMOVED, REPLACE WITH COMMON BORROW AND SUITABLE FILL. SEED RESTORED AREA WITH APPROPRIATE SEED MIX AND MULCH WITH WEED-FREE STRAW.
2		STREAM RESTORATION	<ul style="list-style-type: none"> ALL WORK MUST BE CONDUCTED IN THE DRY AND IN ACCORDANCE WITH THE CONSTRUCTION DRAWINGS. WORKING AT THE DOWNSTREAM END AND CONTINUING UPSTREAM, GRADE STREAM CHANNEL AND REMOVE/ADD SEDIMENT TO BRING ELEVATION TO PROPOSED GRADES SHOWN ON SHEET C-301. PLACE CLEAN BACKFILL MEETING THE RESTORED STREAM REQUIREMENTS SPECIFIED. INSTALL THALWAYS WITH WEIRS AS SPECIFIED ON SHEET C-300 AND C-400. CLEAN MATERIAL FROM ADJACENT SEDIMENTATION AREAS CAN BE USED IF IT MEETS SEDIMENTATION SPECIFICATIONS. PLACE NATURAL COBBLES AND LARGER STONES TO PROVIDE DIVERSITY OF HABITAT, SHADE, AND REFUGE FOR FISH AND STREAM INVERTEBRATES.
3		WETLAND RESTORATION AREAS	<ul style="list-style-type: none"> WORKING EAST TO WEST RESTORE DISTURBED WETLAND GRADES IN ACCORDANCE WITH CONSTRUCTION DRAWINGS. ROUGH GRADE WITHIN 6-INCH TOLERANCE AND INCORPORATE PIT AND MOUND MICROTOPOGRAPHY TO MIMIC NATURAL CONDITIONS. TOP DRESS SUBGRADES WITH A MINIMUM COVER OF 8 INCHES OF ORGANIC TOPSOIL (REFER TO ORGANIC TOPSOIL SPECIFICATIONS, THIS SHEET) THAT IS FREE OF INVASIVE SEED. NATURAL FEATURES SUCH AS DEAD AND DYING WOODY DEBRIS AND LARGE STONES CAN BE RETURNED OR ADDED TO PROVIDE STRUCTURAL DIVERSITY. AIM FOR 4% COVER OF A WIDE VARIETY OF SIZES OF DEAD AND DYING WOODY DEBRIS. SEED WITH NEW ENGLAND WETMIX (WETLAND SEED MIX). MULCH WITH WEED-FREE STRAW.
4		WETLAND SEDIMENTATION AREAS	<ul style="list-style-type: none"> REMOVE SEDIMENTATION IN AREAS WITH DEPTHS GREATER THAN 4-6 INCHES. MATERIAL THAT CONSISTS OF COARSE SANDS AND GRAVEL/ COBBLES CAN BE REUSED IN THE RESTORED STREAM CHANNEL, WHERE APPROPRIATE. REMOVE TO DEPTH OF NATIVE TOPSOILS. SEED RESTORED AREA WITH NEW ENGLAND WETMIX (WETLAND SEED MIX). MULCH WITH WEED-FREE STRAW.
5		UPLAND SEDIMENTATION AREAS	<ul style="list-style-type: none"> REMOVE SEDIMENTATION IN AREAS WITH DEPTHS GREATER THAN 4-6 INCHES. MATERIAL THAT CONSISTS OF COARSE SANDS AND GRAVEL/ COBBLES CAN BE REUSED IN THE RESTORED STREAM CHANNEL, WHERE APPROPRIATE. REMOVE TO DEPTH OF NATIVE TOPSOILS. SEED RESTORED AREA WITH NEW ENGLAND CONSERVATION/WILDLIFE MIX (UPLAND SEED MIX). MULCH WITH WEED-FREE STRAW.

NOTES:
 1. RESTORATION METHODS 1 AND 2 SHALL OCCUR IN SEQUENCE BEFORE METHODS 3-5. CONTRACTOR SHALL COORDINATE AND FOLLOW DIRECTION OF TRC FIELD PERSONNEL ON SITE.

2/2/24 - USER: C:\dwg\ - ATTACHED REF'S: 546184 - SURVEY: REF: 546184 - NATURAL RESOURCES - ATTACHED IMAGES: 2007/6/18 - ME10-DWG: 546184 - LAYOUT: C-301 WETLAND RESTORATION PLAN
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SEAL:

NO.	BY	DATE	REVISION	APPD.

PROJECT: CPKC RAILROAD
BRASSUA TRAIN DE-RAILMENT
STREAM RESTORATION
SANDWICH ACDMY GRANT TWP, SOMERSET COUNTY, ME

TITLE: **WETLAND RESTORATION PLAN**

DRAWN BY: TRC PROJ. NO.: 594641
 CHECKED BY: TND
 APPROVED BY: TND
 DATE: JUNE 2024

C-301

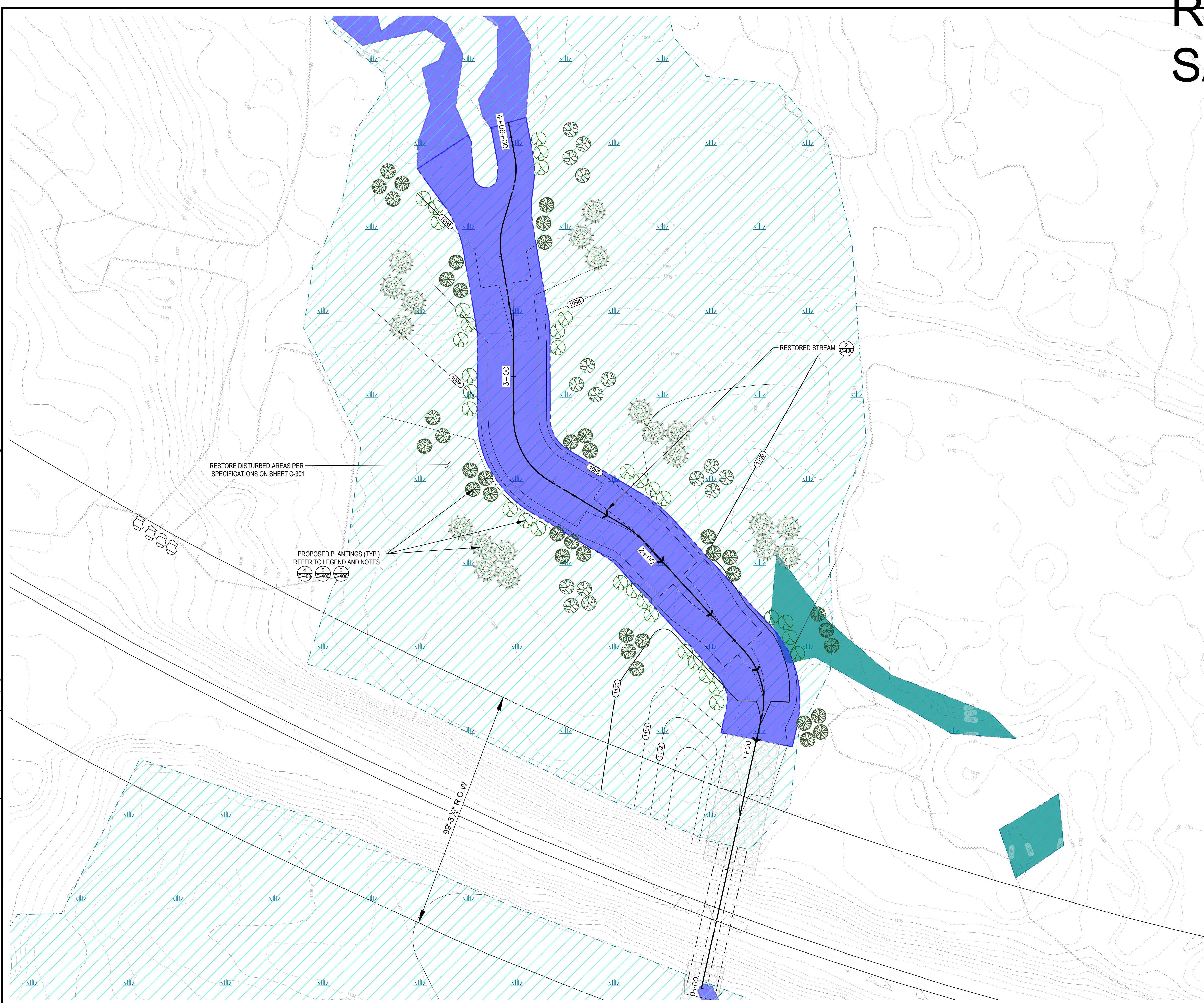
TRC 249 Western Ave.
Augusta, ME 04330
Phone: 207.621.7000
www.trccompanies.com

FILE NO.: 546184 - BASE.dwg

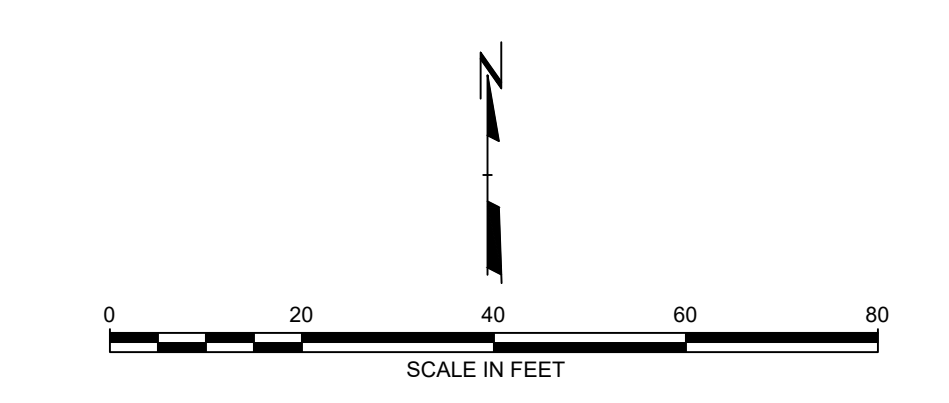
SA-1142

SYMBOL	BOTANICAL NAME/ COMMON NAME	QUANTITY	SIZE	MATURE HEIGHT
	ABIES BALSAMICA SP. PLANT	20	3'-4' HT.	40'-60'
	ACER RUBRUM RED MAPLE	14	3'-4' HT.	60'-80'
	BETULA ALLEGHANIENSIS YELLOW BIRCH	16	3'-4' HT.	75'
	SALIX DISCOLOR PUSSY WILLOW	25	3'-4' HT.	15'-25'
	ALNUS INCANA SPECKLED ALDER	35	3'-4' HT.	15'-25'

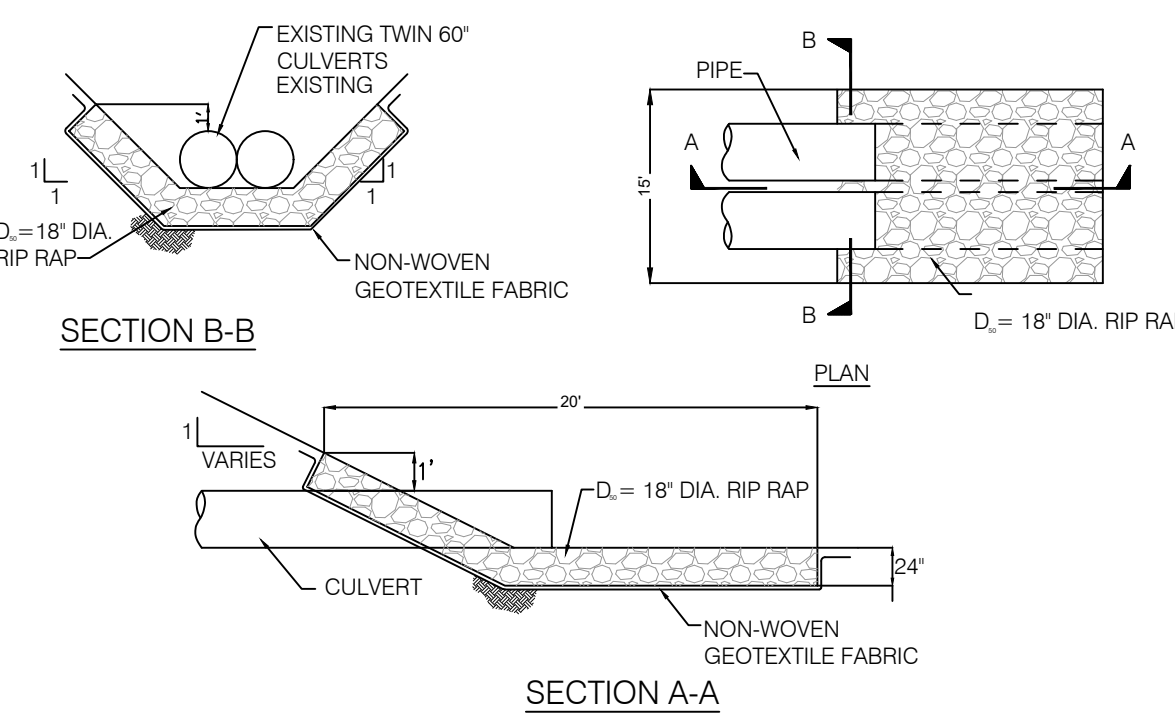
2/23/24 - USER: C:\dwg\1142 - ATTACHED REFS: 546184 - SURVEY REF: 546184 - NATURAL RESOURCES - ATTACHED IMAGES: 2020/7/8/2020612.000\00000000.dwg
 DRAWING NAME: \AUGUSTIA\VF2\Environmental\RMD Projects\Canadian Pacific Railway Company\546184 - CP Brassua Restoration - T2R1.ME\10-DWG\546184 - BASE.dwg --- PLOT DATE: June 18, 2024 - 9:18AM --- LAYOUT: C-302 WETLAND PLANTING PLAN



- NOTES**
- REFER TO PLANTING DETAILS ON SHEET C-400.
 - IN GENERAL, PLANTS SHOULD BE LOCATED WITHIN APPROX. 75 FEET OF EDGE OF RESTORED STREAM.

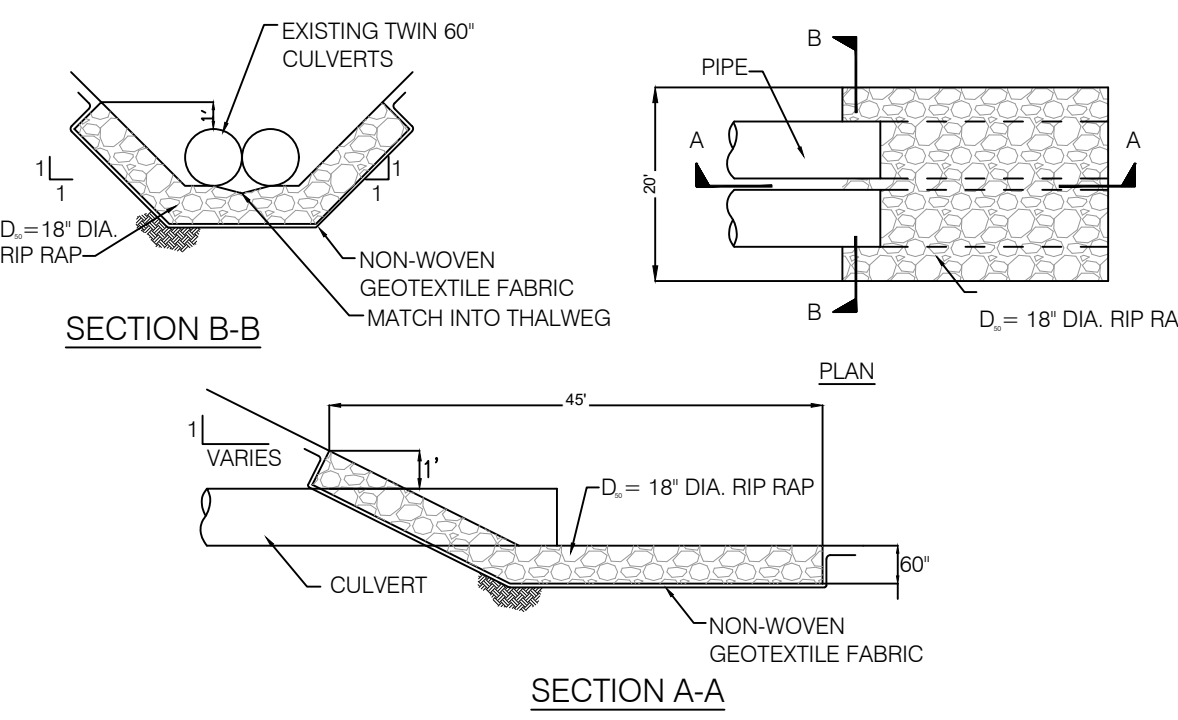


SEAL:				
NO.	BY	DATE	REVISION	APPD.
PROJECT: CPKC RAILROAD BRASSUA TRAIN DE-RAILMENT STREAM RESTORATION SANDWICH ACDMY GRANT TWP, SOMERSET COUNTY, ME				
TITLE: WETLAND PLANTING PLAN				
DRAWN BY: TRC		PROJ. NO.: 594641		
CHECKED BY: TND		APPROVED BY: TND		
DATE: JUNE 2024		C-302		
		249 Western Ave. Augusta, ME 04330 Phone: 207.621.7000 www.trccompanies.com		
FILE NO:		546184 - BASE.dwg		

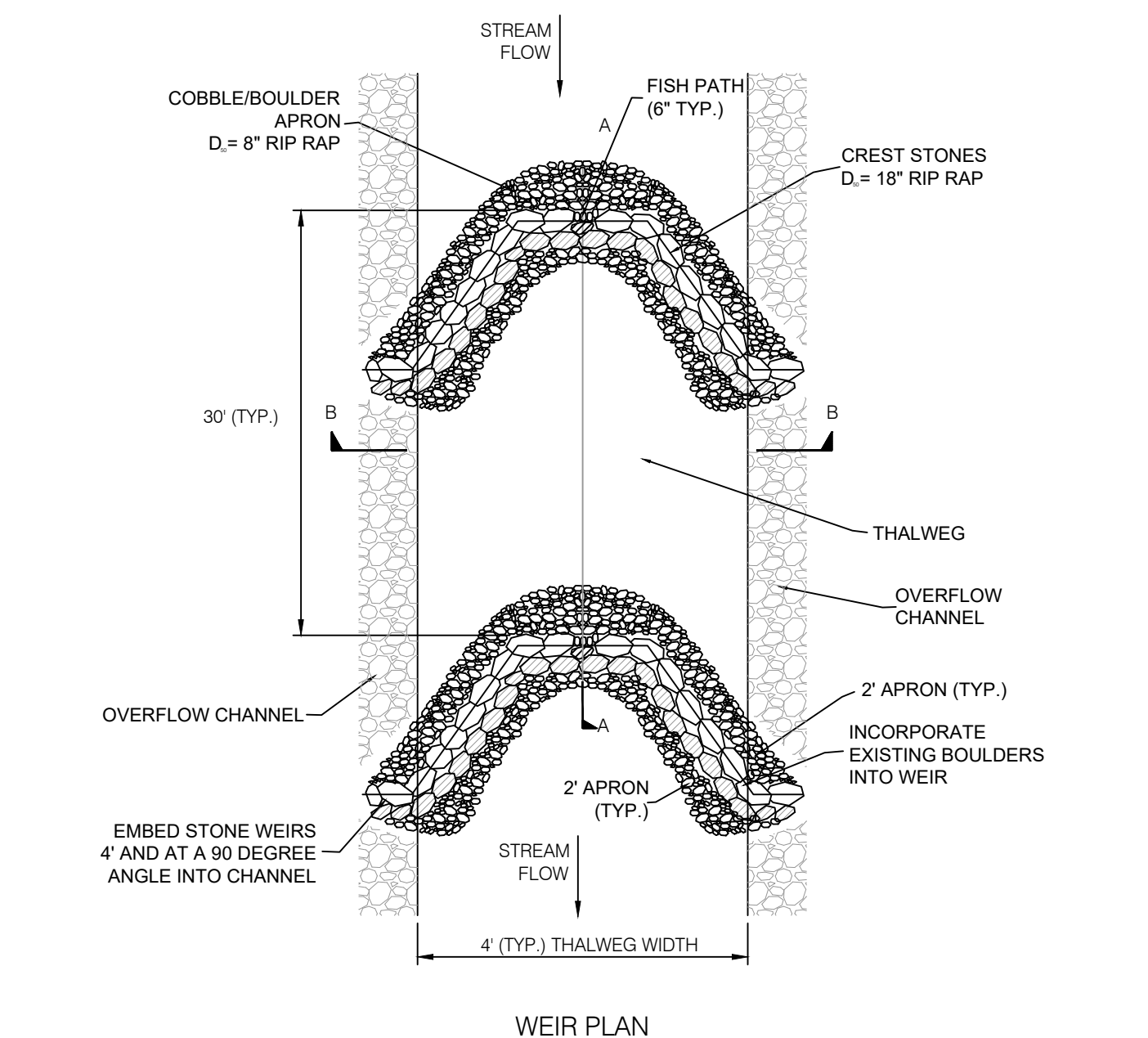


CULVERT INLET PROTECTION

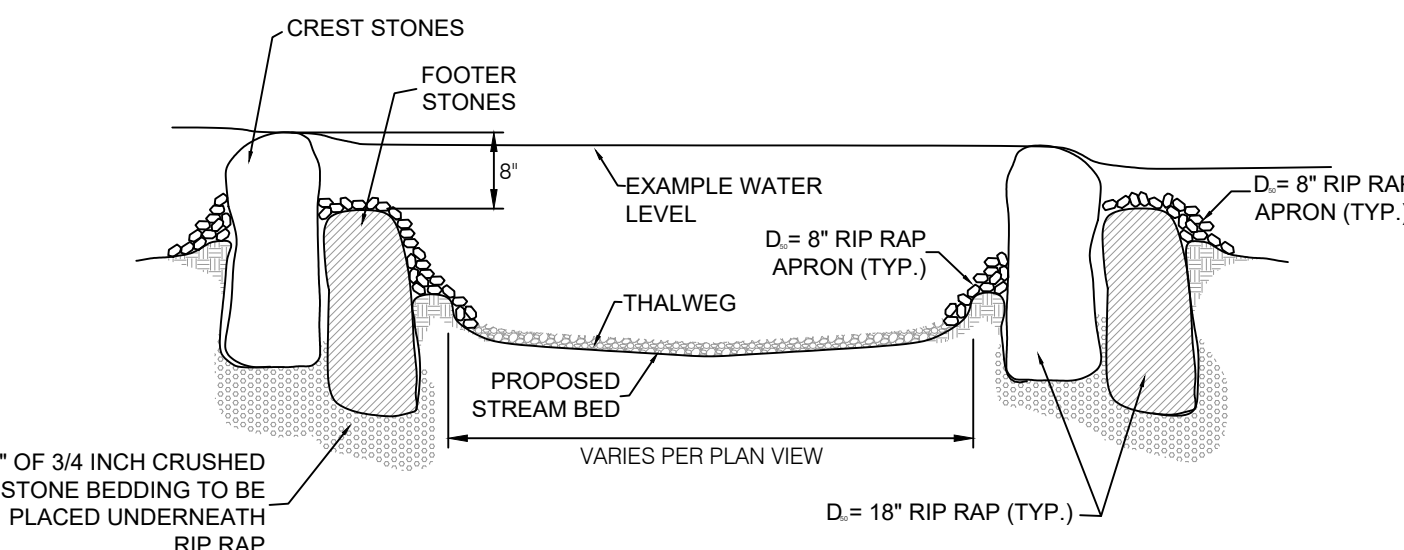
NOTES:
1. CONTRACTOR SHALL PROTECT EXISTING CULVERTS DURING INSTALLATION.



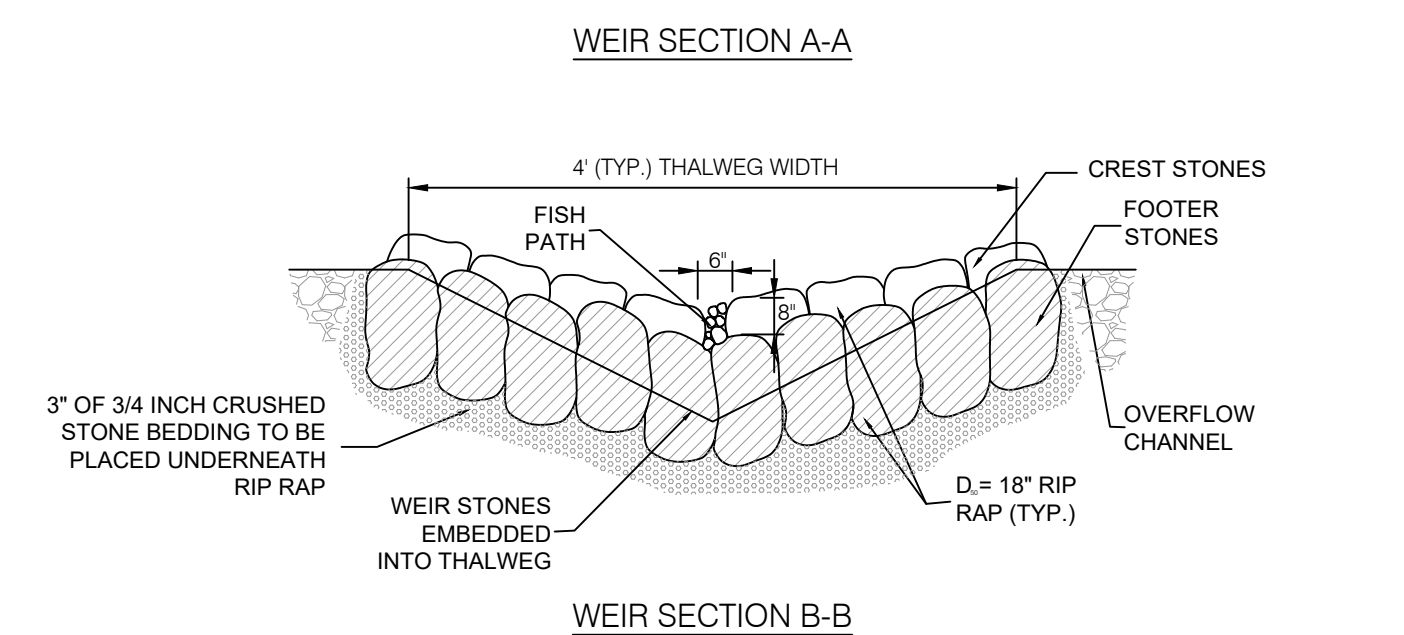
CULVERT OUTLET PROTECTION



WEIR PLAN



WEIR SECTION A-A

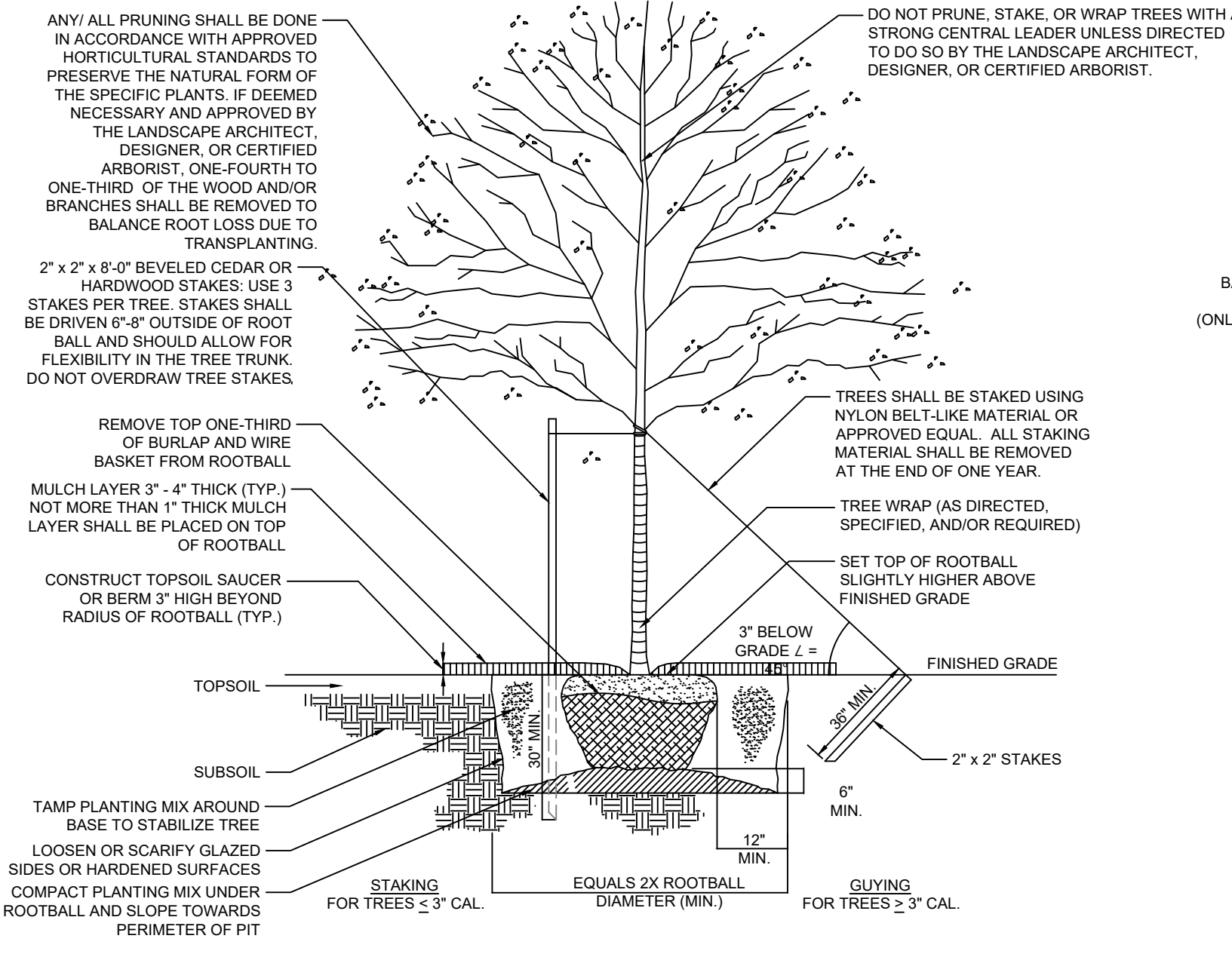


WEIR SECTION B-B

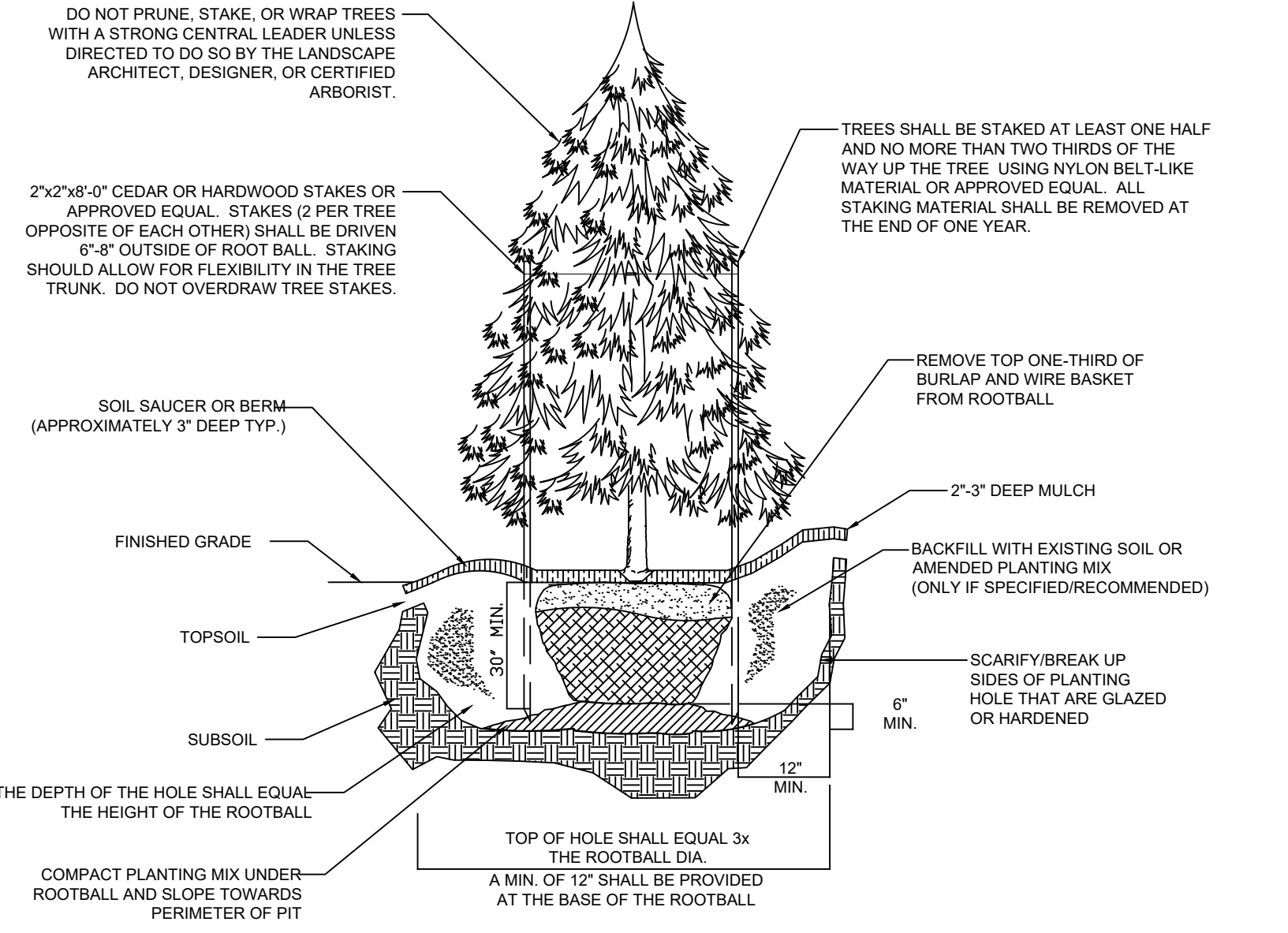
NOTES:
1. ROCK WEIRS SHALL BE PLACED IN THE THALWEG, EXTENDING TO WHERE THE THALWEG MEETS THE OVERFLOW CHANNEL.



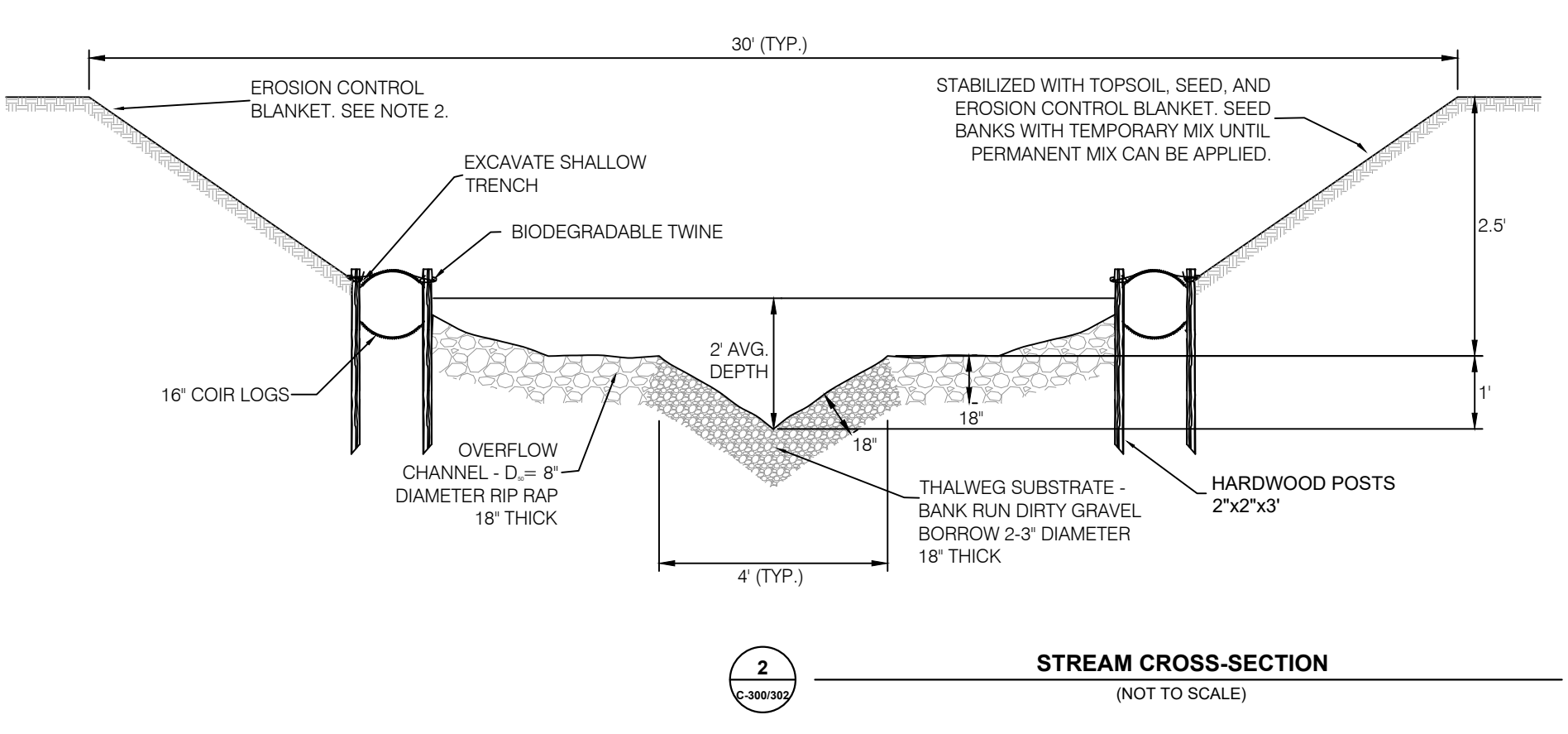
TYPICAL ROCK WEIR



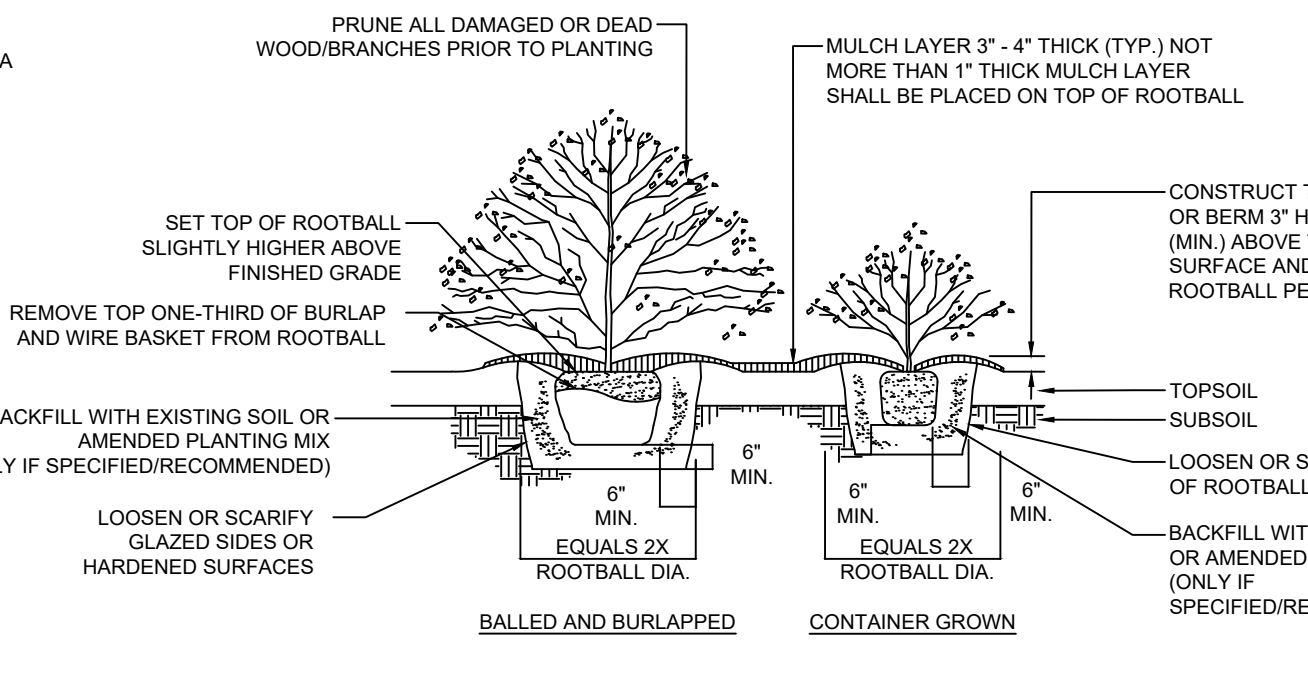
NATIVE/DECIDUOUS TREE PLANTING DETAIL



EVERGREEN TREE PLANTING DETAIL



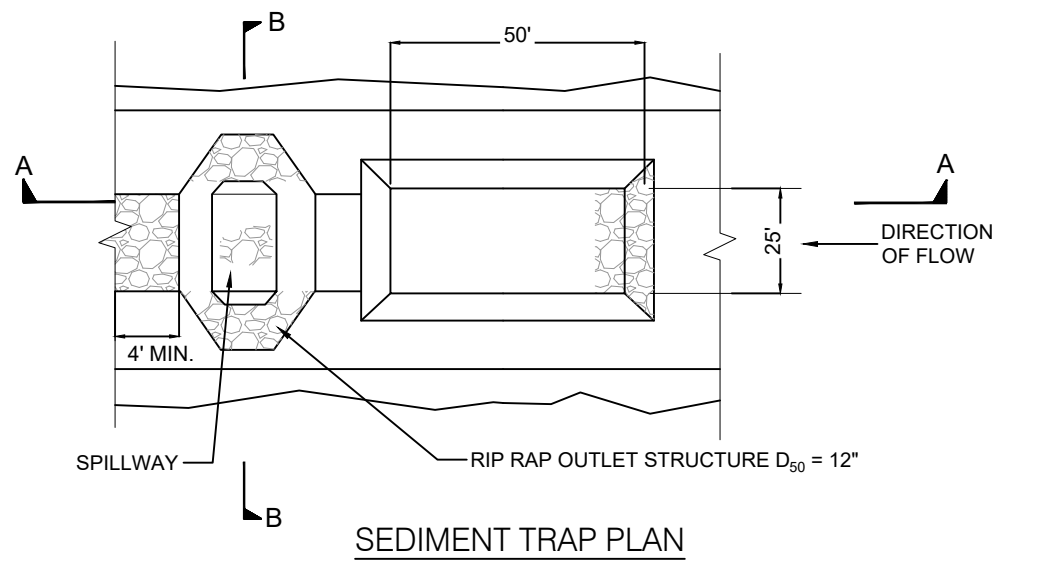
STREAM CROSS-SECTION



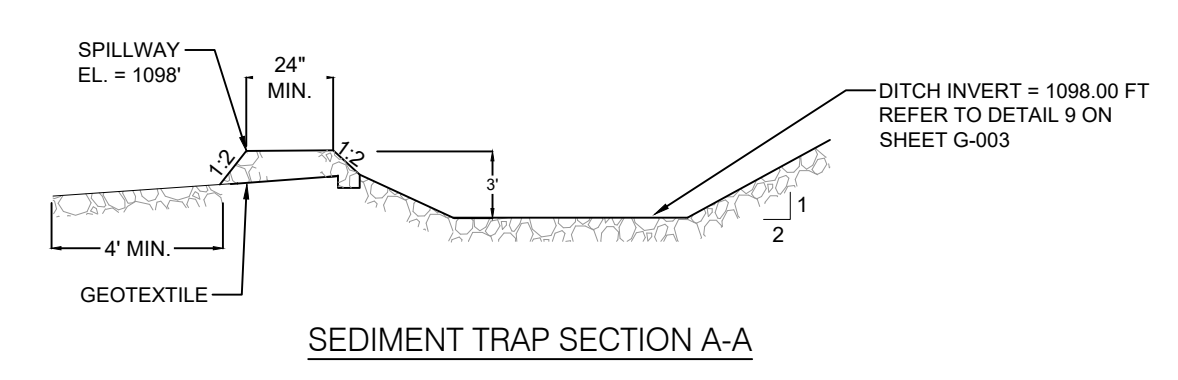
SHRUB PLANTING DETAIL

PLANTING NOTES:

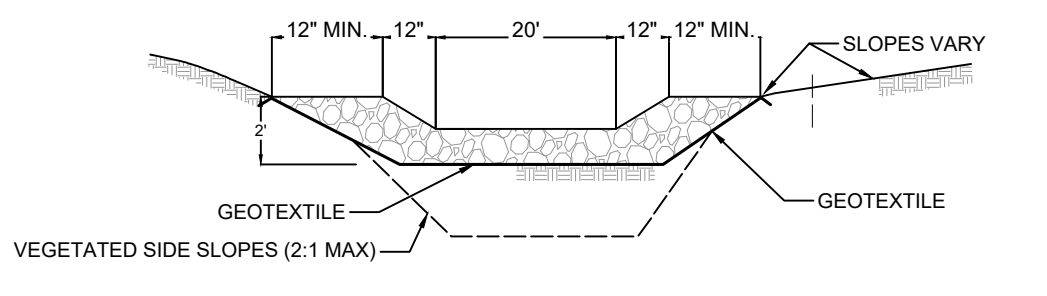
- TREE PLANTING SHALL BEAR SAME RELATIONSHIP TO FINISH GRADE AS IT WAS PRE-DUG IN THE NURSERY.
- CONTRACTOR SHALL NEVER CUT THE PRIMARY LEADER OF THE TREES.
- IT IS NOT RECOMMENDED TO AMEND THE EXISTING SOIL BEFORE BACKFILLING THE HOLE UNLESS SOIL CONDITIONS ARE POOR FOR PLANTING.
- CONTRACTOR SHALL WATER THOROUGHLY TO HELP ENSURE THE REMOVAL OF AIR POCKETS AND PROPERLY SET THE PLANTING.
- THE CONTRACTOR SHALL MONITOR AND GUARANTEE THAT ALL PLANTS, TREES, AND SHRUBS SHALL BE HEALTHY AND FREE OF DISEASE FOR A PERIOD OF (1) ONE YEAR AFTER SUBSTANTIAL COMPLETION AND ACCEPTANCE BY THE OWNER. CONTRACTOR SHALL REPLACE ANY DEAD OR UNHEALTHY PLANTS AT CONTRACTOR'S EXPENSE. NO TREE REPLACEMENT WILL BE REQUIRED IF THE TREES ARE DESTROYED BY BEAVER ACTIVITY. FINAL ACCEPTANCE SHALL BE MADE IF ALL PLANTS MEET THE GUARANTEE REQUIREMENTS INCLUDING MAINTENANCE. MAINTENANCE RESPONSIBILITIES INCLUDE INVASIVE SPECIES MONITORING, REMOVAL, AND SUPPLEMENTATION. MONITORING OF THE PROJECT SITE SHALL OCCUR IN THE SPRING AND THE FALL TO DETERMINE THE PRESENCE OF INVASIVE SPECIES. SHOULD ANY INVASIVE SPECIES BE IDENTIFIED WITHIN THE PROJECT SITE, THE INVASIVE SPECIES SHALL BE REMOVED ACCORDING TO METHODS MOST LIKELY TO BE EFFECTIVE IN CONTROLLING THAT SPECIES AND SUPPLEMENTING ITS REPLACEMENT WITH APPROPRIATE VEGETATION AND SEED MIX IDENTIFIED (AND APPROVED) ON THIS PLAN AND/OR AN APPROVED EQUAL. ADDITIONAL MAINTENANCE RESPONSIBILITIES INCLUDE: APPROVED CULTIVATING, SPRAYING, WEEDING, WATERING, TIGHTENING OF TREE STRAP GLYS, PRUNING, FERTILIZING, MULCHING, AND ANY OTHER OPERATIONS NECESSARY TO MAINTAIN PLANT VIABILITY. MAINTENANCE SHALL BEGIN IMMEDIATELY AFTER PLANTING AND CONTINUE UNTIL 90 DAYS AFTER FINAL ACCEPTANCE.
- THE CONTRACTOR SHALL SUPPLY ALL LABOR, PLANTS, APPROVED SEEDING MIX, AND MATERIALS IN QUANTITIES SUFFICIENT TO COMPLETE THE WORK SHOWN ON THE DRAWINGS AND LISTED IN THE SEEDING TABLES. IN THE EVENT OF A DISCREPANCY BETWEEN QUANTITIES SHOWN IN THE PLANT SCHEDULE AND/OR SEEDING TABLE AND THOSE REQUIRED BY THE DRAWINGS, THE LARGER SHALL APPLY. ALL PLANTS SHALL BE ACCLIMATED BY THE SUPPLY NURSERY TO THE LOCAL HARDINESS ZONE AND BE CERTIFIED THAT THE PLANTING MATERIAL HAS BEEN GROWN FOR A MINIMUM OF (2) TWO YEARS AT THE SOURCE AND OBTAINED WITHIN 200 MILES OF PROJECT SITE UNLESS OTHERWISE APPROVED BY TRC FIELD PERSONNEL.
- THE LOCATIONS FOR PLANT MATERIAL ARE APPROXIMATE AND ARE SUBJECT TO FIELD ADJUSTMENT DUE TO SLOPE, VEGETATION, AND SITE FACTORS SUCH AS THE LOCATION OF ROCK OUTCROPS. PRIOR TO PLANTING THE CONTRACTOR SHALL ACCURATELY STAKE OUT THE LOCATIONS FOR ALL PLANTS. TRC FIELD PERSONNEL SHALL APPROVE THE FIELD LOCATIONS OR ADJUSTMENTS OF THE PLANT MATERIAL.
- ALL SHRUB MASSING AREAS SHALL BE MULCHED TO A DEPTH OF 2" WITH SHREDDED HARDWOOD BARK MULCH.
- NO PLANT SHALL BE PLACED IN THE GROUND BEFORE ROUGH GRADING HAS BEEN COMPLETED AND APPROVED BY TRC FIELD PERSONNEL. STAKING THE LOCATION OF ALL TREES AND SHRUBS SHALL BE COMPLETED PRIOR TO PLANTING FOR APPROVAL BY TRC FIELD PERSONNEL. STAKING OF THE INSTALLED TREE MUST BE COMPLETED THE SAME DAY AS IT IS INSTALLED. ALL TREES SHALL BE STAKED OR QUOTED AS PER THE DETAILS.
- LANDSCAPE PLANTING PITS MUST BE FREE DRAINING. COMPACTED SUBGRADE SHALL BE REMOVED TO A DEPTH OF 2 OR TO A GREATER DEPTH IF REQUIRED BY PLANTING DETAILS OR SPECIFICATIONS. REPLACE SOIL WITH MODERATELY COMPACTED, LOAM OR SANDY LOAM FREE FROM STONES AND RUBBISH 1" OR GREATER IN DIAMETER AND ANY OTHER MATERIAL HARMFUL TO PLANT GROWTH AND DEVELOPMENT. PLANTING INSTALLATION SHALL BE AS DETAILED AND CONTAIN PLANTING MIX AS SPECIFIED UNLESS OTHERWISE RECOMMENDED OTHERWISE BY SOIL ANALYSIS.
- PLANTING SOIL MIXTURE:
2 PARTS PEAT MOSS
5 PARTS TOPSOIL
MICROSPHAGNA INOCULANT - "TRANSPLANT 1-STEP" AS MANUFACTURED BY ROYALS, INC. OR APPROVED EQUAL.
USE PER MANUFACTURER'S RECOMMENDATIONS FOR TREES AND SHRUBS.
FERTILIZER/LIME APPLY AS RECOMMENDED BY SOIL ANALYSIS.
- TREES AND SHRUBS: TREES AND SHRUBS SHALL BE NURSERY GROWN UNLESS OTHERWISE NOTED AND HARDY UNDER CLIMATIC CONDITIONS SIMILAR TO THOSE IN THE LOCATION OF THE PROJECT. THEY SHALL BE TYPICAL OF THEIR SPECIES OR VARIETY, WITH NORMAL HABIT OF GROWTH. THEY SHALL BE SOUND, HEALTHY, VIGOROUS, WELL-BRANCHED AND DENSELY FOLIATED WHEN IN LEAF. THEY SHALL BE FREE OF DISEASE, INSECT PESTS, EGGS OR LARVAE. THEY SHALL HAVE HEALTHY AND WELL-DEVELOPED ROOT SYSTEMS. ALL TREES SHALL HAVE STRAIGHT SINGLE TRUNKS WITH THEIR MAIN LEADER INTACT UNLESS OTHERWISE STATED. THE OWNER, CERTIFIED LANDSCAPE INSPECTOR, OR LANDSCAPE ARCHITECT SHALL ONLY PERMIT SUBSTITUTIONS UPON WRITTEN APPROVAL. THEIR SIZES SHALL CONFORM TO THE MEASUREMENTS SPECIFIED ON THE DRAWINGS. PLANTS LARGER THAN SPECIFIED ON THE DRAWINGS MAY BE USED IF APPROVED. THE USE OF SUCH PLANTS SHALL NOT INCREASE THE CONTRACT PRICE. ALL TREES AND SHRUBS SHALL BE MULCHED IN ACCORDANCE WITH THE RESPECTIVE PLANTING DETAILS PROVIDED TO THE LEFT.



SEDIMENT TRAP PLAN

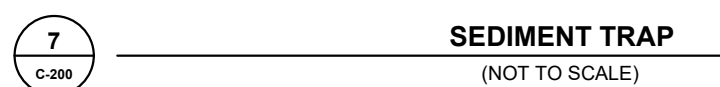


SEDIMENT TRAP SECTION A-A



SEDIMENT TRAP SECTION B-B

REFERENCE:
-MAINE DEP BEST MANAGEMENT PRACTICES FOR EROSION AND SEDIMENTATION CONTROL - SEDIMENT TRAPS
-MAINE DOT STANDARD DETAIL 802(14)



SEDIMENT TRAP

SEAL:			
PROJECT: CPKC RAILROAD BRASSIA TRAIN DE-RAILMENT STREAM RESTORATION SANDWICH ACDMY GRANT TWP, SOMERSET COUNTY, ME			
TITLE: PERMITTING CIVIL DETAILS			
DRAWN BY:	TRC	PROJ. NO.:	594641
CHECKED BY:	TND		
APPROVED BY:	TND	C-400	
DATE:	JUNE 2024		
TRC		249 Western Ave. Augusta, ME 04330 Phone: 207.621.7000 www.trccompanies.com	
FILE NO.:	546184 - DT.dwg		

2304 - USER: C:\dwg\trc - ATTACHED REFS: - ATTACHED IMAGES: - LAYOUT: CIVIL DETAILS
DRAWING NAME: \AUGUST\A-VF2\Environmental\RMID\ENV\RMID Projects\Canadian Pacific Railway Company\546184 - CP Brassia Restoration - T2R1.ME\10-DWG.546184 - DT.dwg - PLOT DATE: June 18, 2024 - 9:18AM -

CPKC Train Derailment Stream Restoration Project, Sandwich Academy Grant Twp, Maine
Maine General Permit Application: Pre-Construction Notification
Land Use Planning Commission: Wetland Alteration and Shoreland Alteration Applications



ATTACHMENT 5. AGENCY CORRESPONDENCE

- IPaC
- MHPC
- THPO



United States Department of the Interior



FISH AND WILDLIFE SERVICE
Maine Ecological Services Field Office
P. O. Box A
East Orland, ME 04431
Phone: (207) 469-7300 Fax: (207) 902-1588

In Reply Refer To:
Project Code: 2024-0063651
Project Name: CPKC Train Derailment

05/22/2024 15:33:14 UTC

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

To Whom It May Concern:

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

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2) (c)). For projects other than major construction activities, the Service suggests that a biological

evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

<https://www.fws.gov/sites/default/files/documents/endangered-species-consultation-handbook.pdf>

Migratory Birds: In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts, see <https://www.fws.gov/program/migratory-bird-permit/what-we-do>.

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures, see <https://www.fws.gov/library/collections/threats-birds>.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit <https://www.fws.gov/partner/council-conservation-migratory-birds>.

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

Attachment(s):

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

OFFICIAL SPECIES LIST

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

This species list is provided by:

Maine Ecological Services Field Office

P. O. Box A

East Orland, ME 04431

(207) 469-7300

Project code: 2024-0063651

PROJECT SUMMARY

Project Code: 2024-0063651
Project Name: CPKC Train Derailment
Project Type: Restoration / Enhancement - Wetland
Project Description: Stream and wetland restoration
Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@45.6278868,-69.91658507903577,14z>



Counties: Somerset County, Maine

ENDANGERED SPECIES ACT SPECIES

There is a total of 4 threatened, endangered, or candidate species on this species list.

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

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

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

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

MAMMALS

NAME	STATUS
Canada Lynx <i>Lynx canadensis</i> Population: Wherever Found in Contiguous U.S. There is final critical habitat for this species. Your location overlaps the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/3652	Threatened
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045	Endangered
Tricolored Bat <i>Perimyotis subflavus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/10515	Proposed Endangered

INSECTS

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

CRITICAL HABITATS

There is 1 critical habitat wholly or partially within your project area under this office's jurisdiction.

NAME	STATUS
Canada Lynx <i>Lynx canadensis</i> https://ecos.fws.gov/ecp/species/3652#crithab	Final

USFWS NATIONAL WILDLIFE REFUGE LANDS AND FISH HATCHERIES

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

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

BALD & GOLDEN EAGLES

Bald and golden eagles are protected under the Bald and Golden Eagle Protection Act¹ and the Migratory Bird Treaty Act².

Any person or organization who plans or conducts activities that may result in impacts to bald or golden eagles, or their habitats³, should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the "[Supplemental Information on Migratory Birds and Eagles](#)".

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

THERE ARE NO BALD AND GOLDEN EAGLES WITHIN THE VICINITY OF YOUR PROJECT AREA.

MIGRATORY BIRDS

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats³ should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the "[Supplemental Information on Migratory Birds and Eagles](#)".

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

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, see the PROBABILITY OF PRESENCE SUMMARY below to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Bay-breasted Warbler <i>Setophaga castanea</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9583	Breeds May 25 to Aug 1
Veery <i>Catharus fuscescens fuscescens</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/11987	Breeds May 15 to Jul 15

PROBABILITY OF PRESENCE SUMMARY

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

Probability of Presence (■)

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

Breeding Season (■)

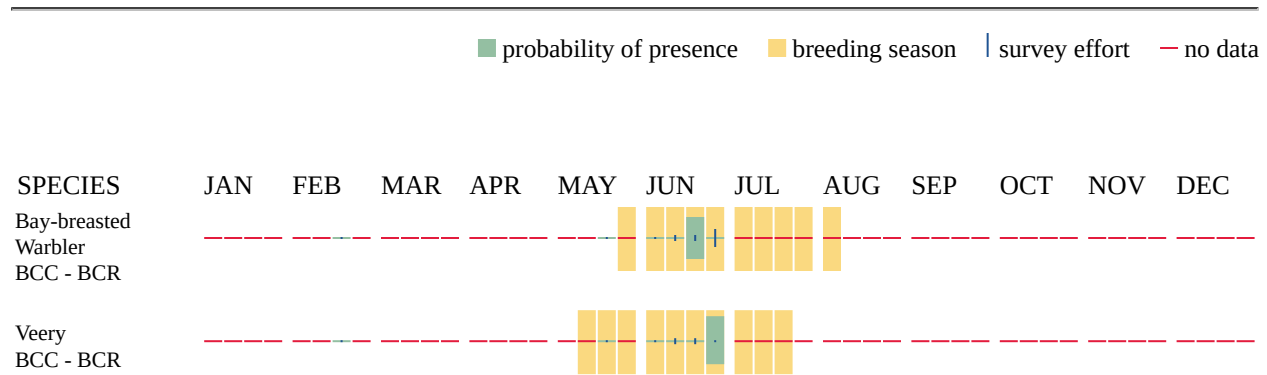
Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.

Survey Effort (|)

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

No Data (-)

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



Additional information can be found using the following links:

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

WETLANDS

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

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

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

LAKE

- L1UBHh

RIVERINE

- R4SBC

FRESHWATER FORESTED/SHRUB WETLAND

- PFO4Eh

IPAC USER CONTACT INFORMATION

Agency: Private Entity
Name: Natalie Simonton
Address: 63 Marginal Way, 4th Floor
City: Portland
State: ME
Zip: 04074
Email: nsimonton@trccompanies.com
Phone: 2073172030

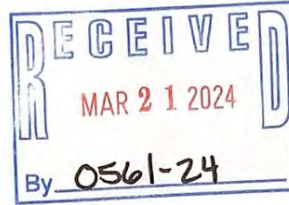


63 Marginal Way, 4th Floor
Portland, ME 04101

T 207.879.1930
TRCcompanies.com

March 21, 2024

Kirk F. Mohney, Director
Maine Historic Preservation Commission
55 Capitol Street
65 State House Station
Augusta, Maine 04333-0065



Sent Via Email

**Subject: CPKC Train Derailment
Sandwich Academy Grant Township, Somerset County, ME**

Dear Mr. Mohney:

On behalf of CPKC Railway (Applicant), TRC Companies, Inc. is requesting project review for the wetland and stream restoration work (the Project) associated with a CPKC Railway train derailment on Plan 01 Lot 2 in Sandwich Academy Grant Township (T2 R1 NBK), that took place on April 15, 2023. The Project site consists of approximately 3 acres of land between the CPKC Railroad and Little Brassua Lake in Sandwich Academy Grant Township, Somerset County, ME. Project components include wetland, stream, and upland restoration. The Applicant will be applying for a permit from the USACE for the associated restoration work. Please see the Project area shown on the Site Location Map attached.

If you have any questions regarding the Project, please contact me at (207) 215-2872 or email at kemack@trccompanies.com.

Thank you,

Karen E. Mack, M.S.
Principal Archaeologist

Based on the information submitted, I have concluded that there will be no historic properties affected by the proposed undertaking, as defined by Section 105 of the National Historic Preservation Act. Consequently, pursuant to 36 CFR 800.4(d)(1), no further Section 106 consultation is required unless additional resources are discovered during project implementation pursuant to 36 CFR 800.13.

Kirk F. Mohney,
State Historic Preservation Officer
Maine Historic Preservation Commission

4/11/24
Date

Attachments (1): Site Location Map



63 Marginal Way, 4th Floor
Portland, ME 04101

Received 6/20/2024
SA-1142
TRCcompanies.com

March 21, 2024

Kirk F. Mohney, Director
Maine Historic Preservation Commission
55 Capitol Street
65 State House Station
Augusta, Maine 04333-0065

Sent Via Email

**Subject: CPKC Train Derailment
Sandwich Academy Grant Township, Somerset County, ME**

Dear Mr. Mohney:

On behalf of CPKC Railway (Applicant), TRC Companies, Inc. is requesting project review for the wetland and stream restoration work (the Project) associated with a CPKC Railway train derailment on Plan 01 Lot 2 in Sandwich Academy Grant Township (T2 R1 NBK), that took place on April 15, 2023. The Project site consists of approximately 3 acres of land between the CPKC Railroad and Little Brassua Lake in Sandwich Academy Grant Township, Somerset County, ME. Project components include wetland, stream, and upland restoration. The Applicant will be applying for a permit from the USACE for the associated restoration work. Please see the Project area shown on the Site Location Map attached.

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Thank you,

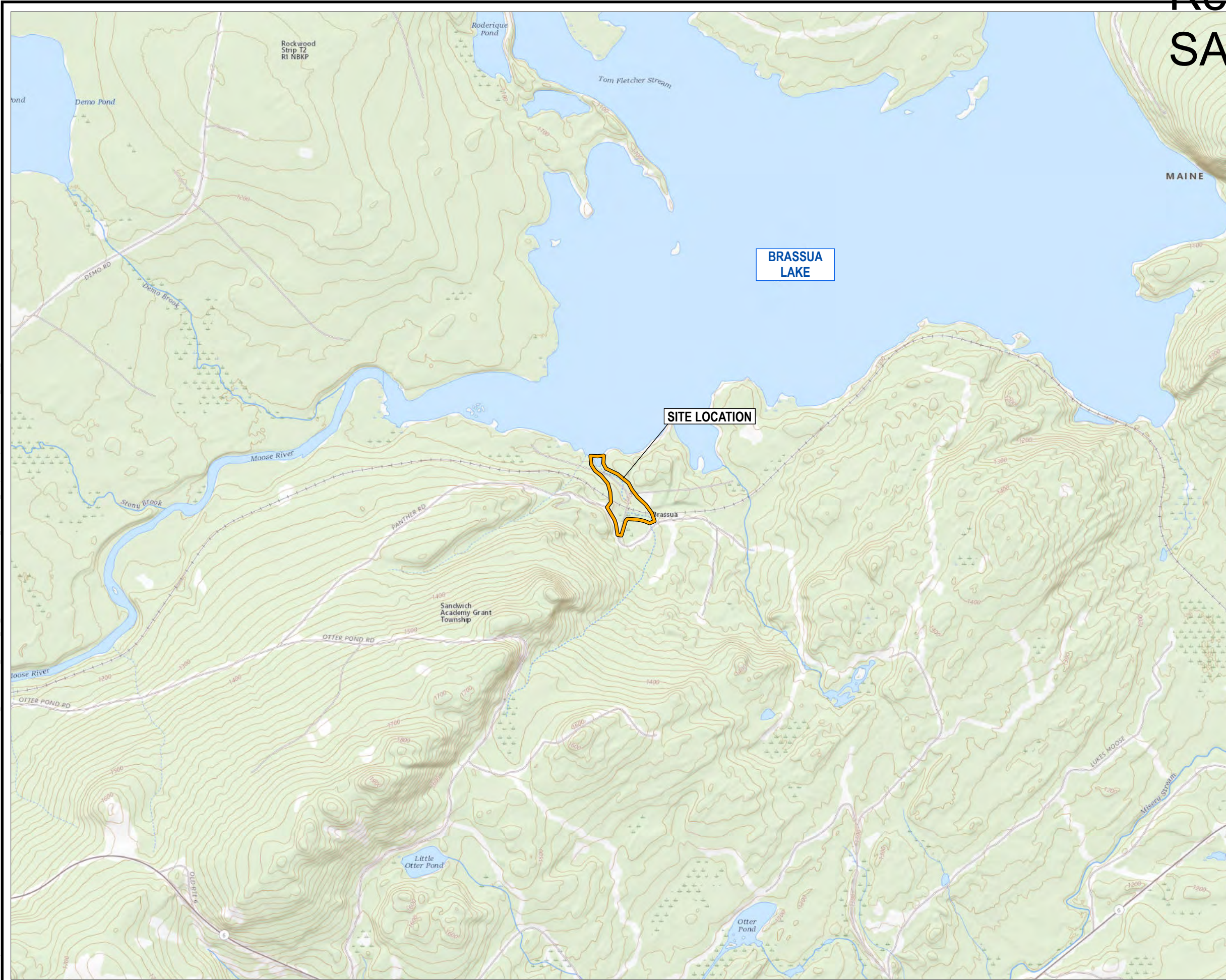
Karen E. Mack, M.S.

Principal Archaeologist

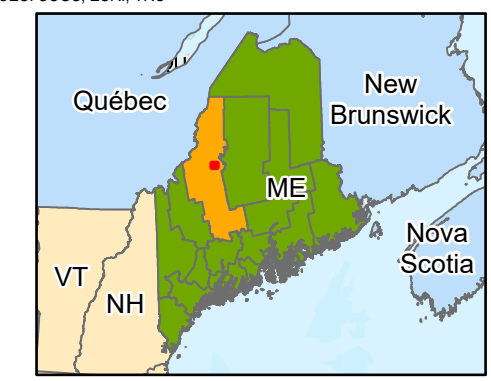
Attachments (1): Site Location Map

PROJECT AREA

SA-1142



BASE MAP: GOOGLE IMAGERY SERVICE
DATA SOURCES: USGS, ESRI, TRC



1:24,000
1" = 2,000'



PROJECT:		CPKC TRAIN DERAILMENT SANDWICH ACADEMY GRANT TOWNSHIP, MAINE	
TITLE:			
SITE LOCATION MAP			
DRAWN BY:	E. YPSILANTIS	PROJ. NO.:	546184.0000.0000
CHECKED BY:	J. FREDENBURG	FIGURE 1	
APPROVED BY:	M. BERGERON		
DATE:	OCTOBER 2023		



249 WESTERN AVE
AUGUSTA, ME 04330
PHONE: 207-621-7000

FILE: Brassua_Derailment_EY.aprx

Coordinate System: NAD 1983 StatePlane Maine West FIPS 1602 Feet; Map Rotation: 0
- Saved By: EYPSILANTIS on 10/20/2023, 15:51:51 PM; File Path: T:\PROJECTS\Cms\maine_Pacific\12-A\FPX\Brassua_ME_Derailment\2-A\FPX\Brassua_ME_Derailment_EY.aprx; Layout Name: Brassua_Existing_SLM



63 Marginal Way, 4th Floor
Portland, ME 04101

Received 6/20/2024

SA-1142

T 207.879.1930

TRCcompanies.com

March 21, 2024

Isaac St. John – THPO
Houlton Band of Maliseet Indians
88 Bell Road
Littleton, Maine 04730

sent via email

**RE: Sandwich Academy Grant Township
CPKC Railway Train Derailment**

Dear Mr. St. John:

On behalf of CPKC Railway (Applicant), TRC Companies, Inc. is providing notification for wetland and stream restoration work (the Project) associated with a CPKC Railway train derailment on Plan 01 Lot 2 in Sandwich Academy Grant Township (T2 R1 NBK), that took place on April 15, 2023. The Project site consists of approximately 3 acres of land between the CPKC Railroad and Little Brassua Lake in Sandwich Academy Grant Township, Somerset County, ME. Project components include wetland, stream, and upland restoration. The Applicant will be applying for a permit from the USACE for the associated restoration work. Please see the Project area shown on the Site Location Map attached.

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Please let us know if you have any questions or would like any additional information, please feel free to contact me at 207-215-2872 or kemack@trccompanies.com

Thank you,

Karen E. Mack, M.S.

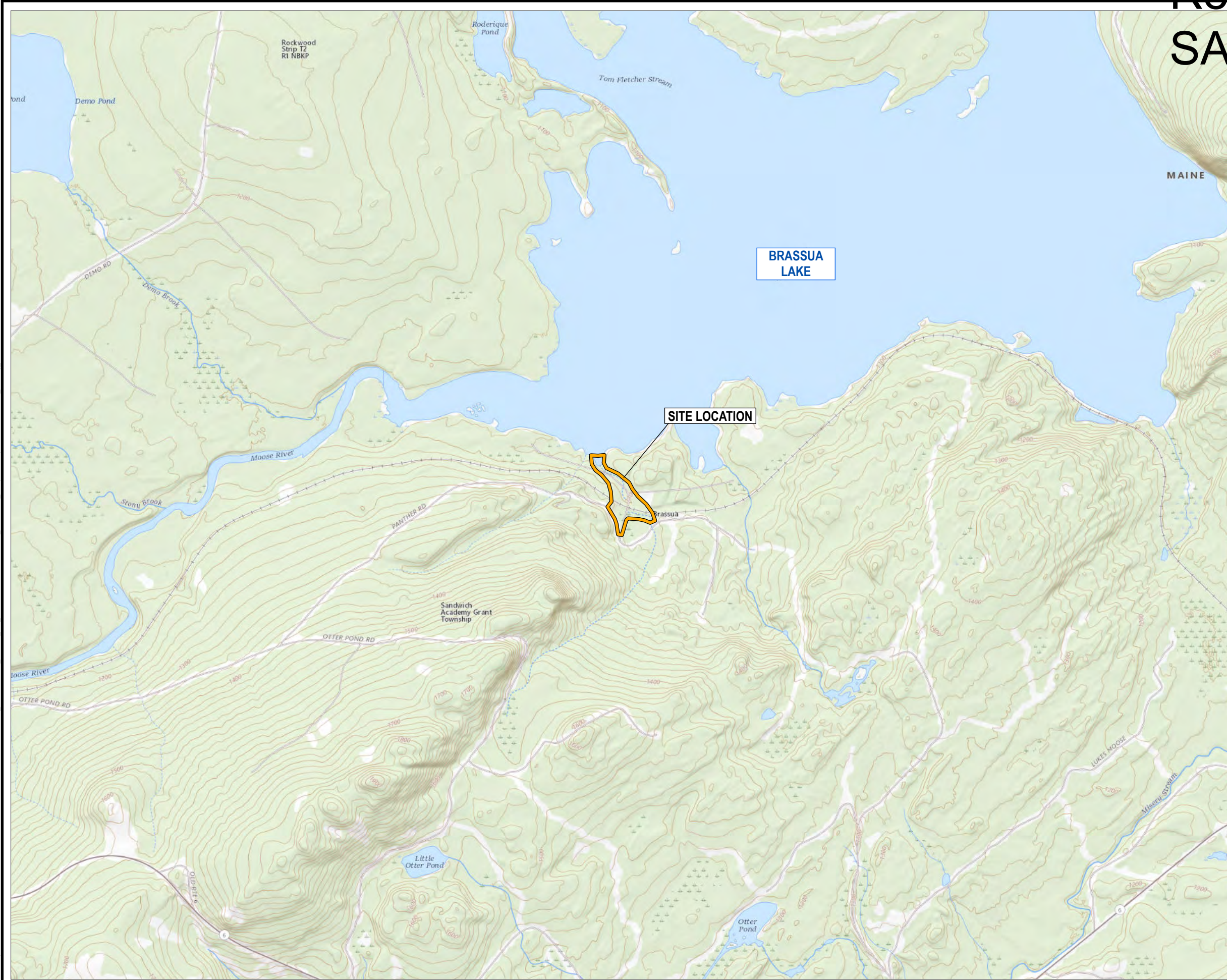
Principal Archaeologist

Attachments:

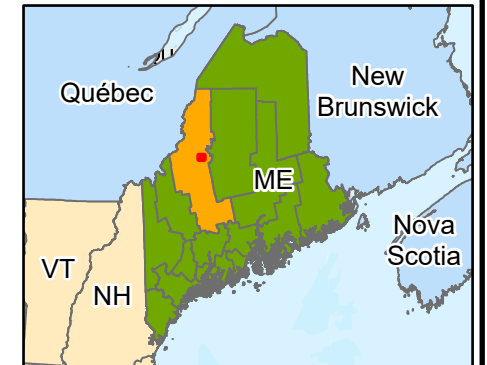
Figure 1. Site Location Map

PROJECT AREA

SA-1142



BASE MAP: GOOGLE IMAGERY SERVICE
DATA SOURCES: USGS, ESRI, TRC



1:24,000
1" = 2,000'

0 1,000 2,000 FEET

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DATE:	OCTOBER 2023		
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63 Marginal Way, 4th Floor
Portland, ME 04101

Received 6/20/2024

SA-1142

T 207.879.1930

TRCcompanies.com

March 21, 2024

Ms. Jenny Gaenzle – THPO
Mi'kmaq Nation
7 Northern Road
Presque Isle, Maine 04769
(207) 764-1972 (phone)
(207) 764-7667 (fax)
jgaenzle@micmac-nsn.gov

sent via email

**RE: Sandwich Academy Grant Township
CPKC Railway Train Derailment**

Dear Ms. Gaenzle,

On behalf of CPKC Railway (Applicant), TRC Companies, Inc. is providing notification for wetland and stream restoration work (the Project) associated with a CPKC Railway train derailment on Plan 01 Lot 2 in Sandwich Academy Grant Township (T2 R1 NBK), that took place on April 15, 2023. The Project site consists of approximately 3 acres of land between the CPKC Railroad and Little Brassua Lake in Sandwich Academy Grant Township, Somerset County, ME. Project components include wetland, stream, and upland restoration. The Applicant will be applying for a permit from the USACE for the associated restoration work. Please see the Project area shown on the Site Location Map attached.

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Thank you,

Karen E. Mack, M.S.

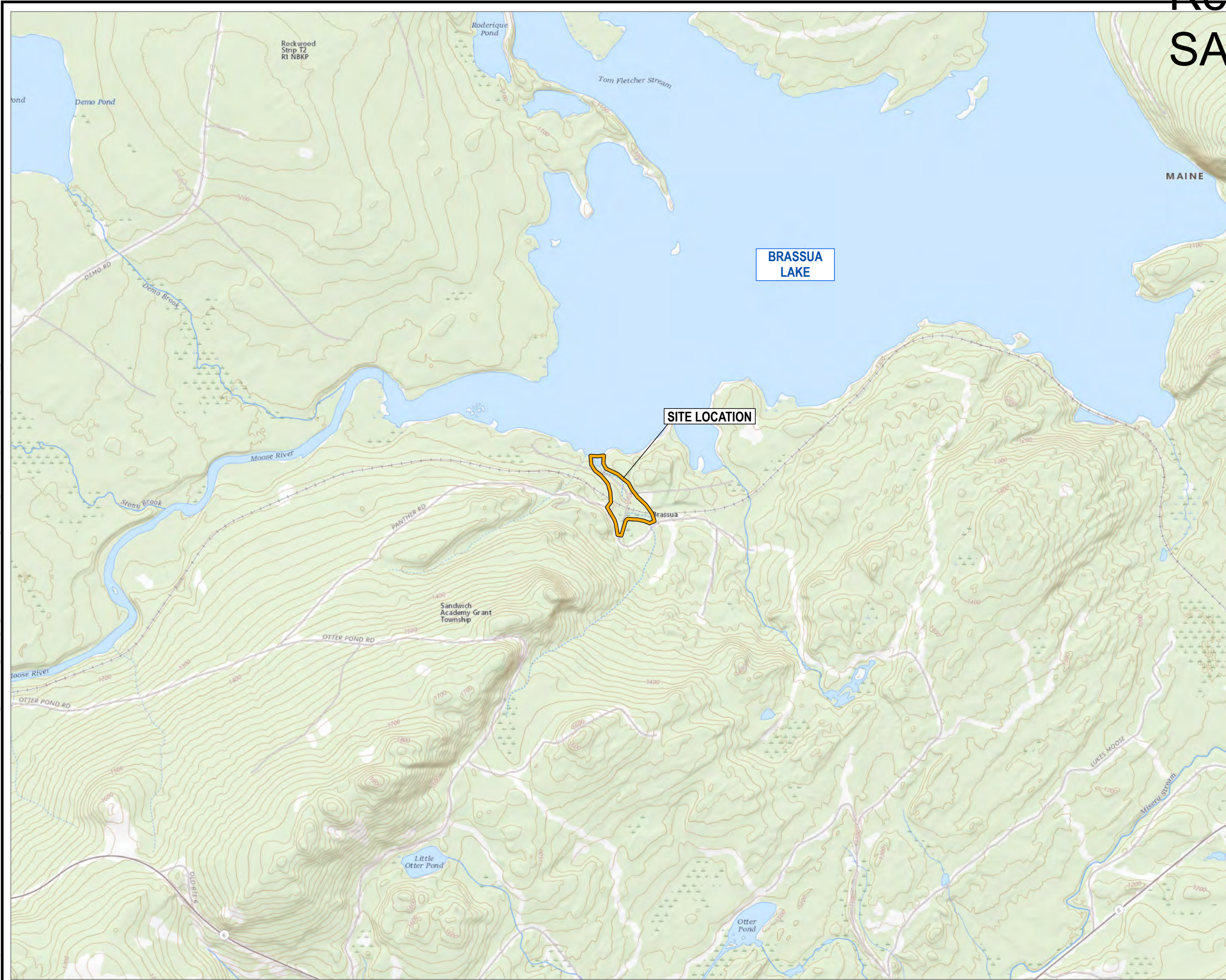
Principal Archaeologist

Attachments:

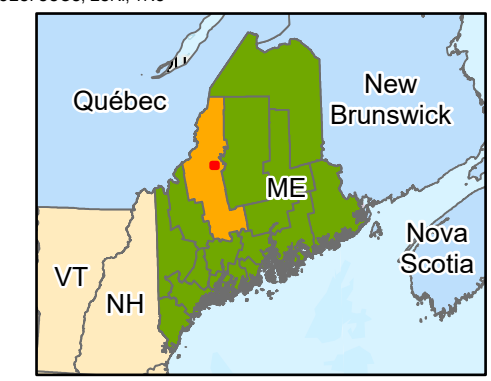
Figure 1. Site Location Map

PROJECT AREA

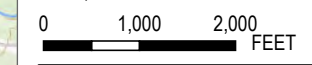
SA-1142



BASE MAP: GOOGLE IMAGERY SERVICE
DATA SOURCES: USGS, ESRI, TRC



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1" = 2,000'



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AUGUSTA, ME 04330
PHONE: 207-621-7000

FILE: Brassua_Derailment_EY.aprx

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63 Marginal Way, 4th Floor
Portland, ME 04101

Received 6/20/2024

SA-1142

T 207.879.1930

TRCcompanies.com

March 21, 2024

via email

Donald Soctomah, THPO
Passamaquoddy Tribe of Indians
Indian Township Reservation
P.O. Box 301
Princeton, Maine 04668

**RE: Sandwich Academy Grant Township
CPKC Railway Train Derailment**

Dear Mr. Soctomah,

On behalf of CPKC Railway (Applicant), TRC Companies, Inc. is providing notification for wetland and stream restoration work (the Project) associated with a CPKC Railway train derailment on Plan 01 Lot 2 in Sandwich Academy Grant Township (T2 R1 NBK), that took place on April 15, 2023. The Project site consists of approximately 3 acres of land between the CPKC Railroad and Little Brassua Lake in Sandwich Academy Grant Township, Somerset County, ME. Project components include wetland, stream, and upland restoration. The Applicant will be applying for a permit from the USACE for the associated restoration work. Please see the Project area shown on the Site Location Map attached.

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Thank you,

A handwritten signature in black ink that reads "KEMack".

Karen E. Mack, M.S.

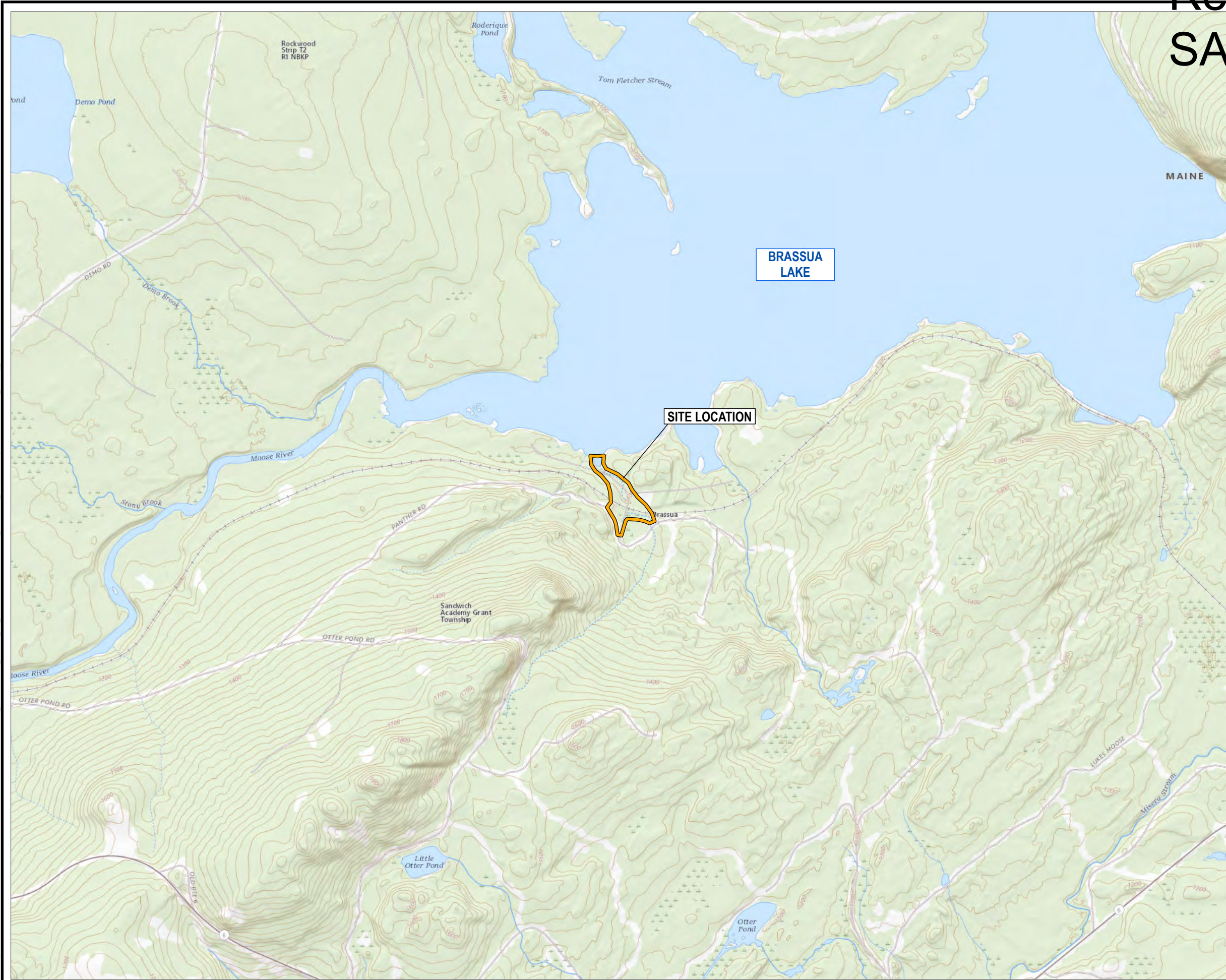
Principal Archaeologist

Attachments:

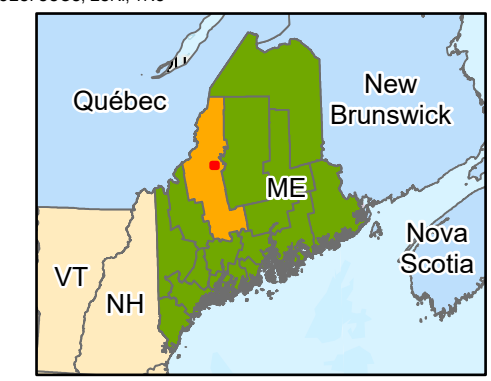
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PROJECT AREA

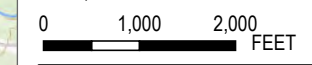
SA-1142



BASE MAP: GOOGLE IMAGERY SERVICE
DATA SOURCES: USGS, ESRI, TRC



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1" = 2,000'



PROJECT:		CPKC TRAIN DERAILMENT SANDWICH ACADEMY GRANT TOWNSHIP, MAINE	
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PHONE: 207-621-7000

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63 Marginal Way, 4th Floor
Portland, ME 04101

Received 6/20/2024

SA-1142

T 207.879.1930

TRCcompanies.com

March 21, 2024

via email

Donald Soctomah, THPO
Passamaquoddy Tribe of Indians
Pleasant Point Reservation
P.O. Box 343, Perry, Maine 04667

**RE: Sandwich Academy Grant Township
CPKC Railway Train Derailment**

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Karen E. Mack, M.S.

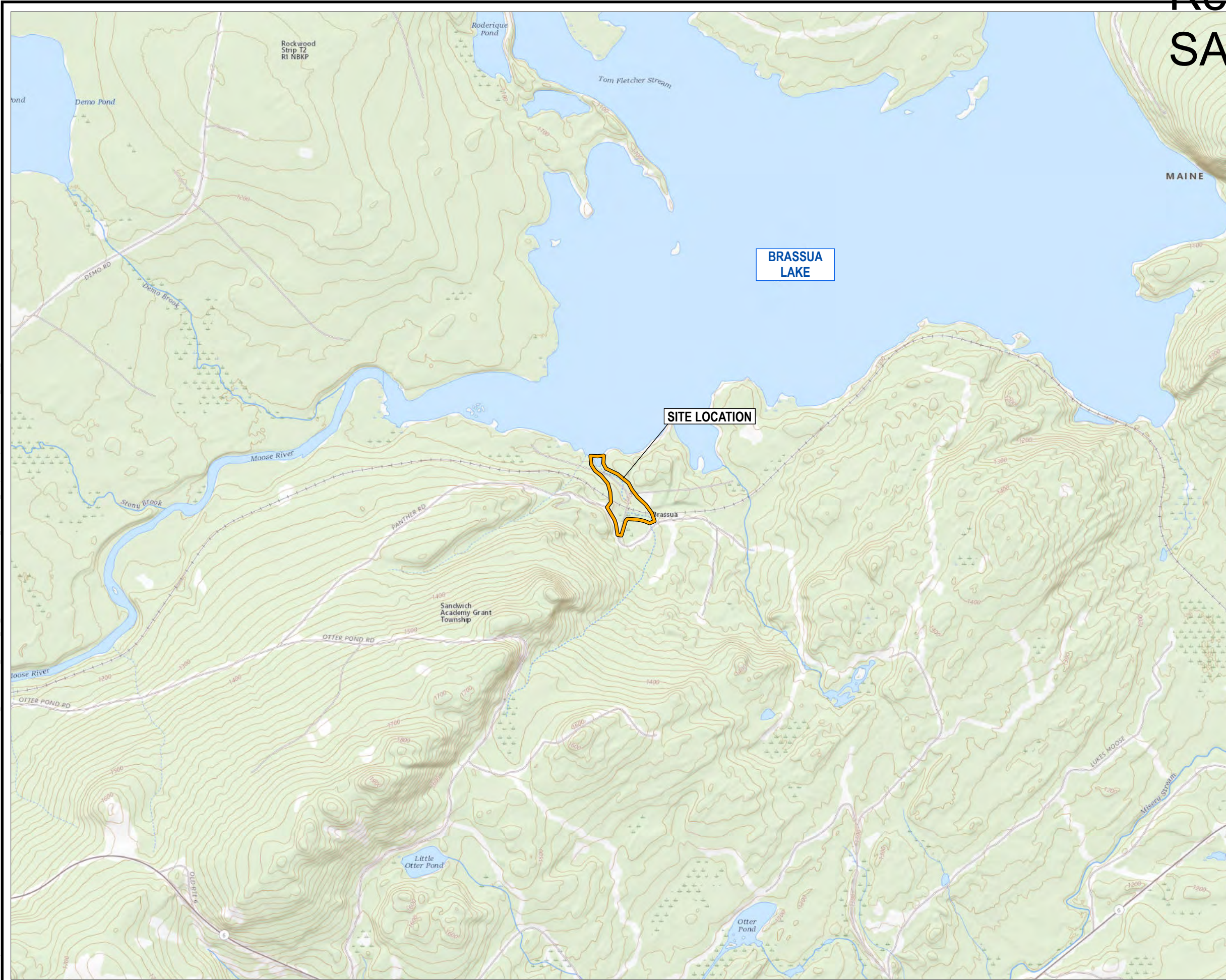
Principal Archaeologist

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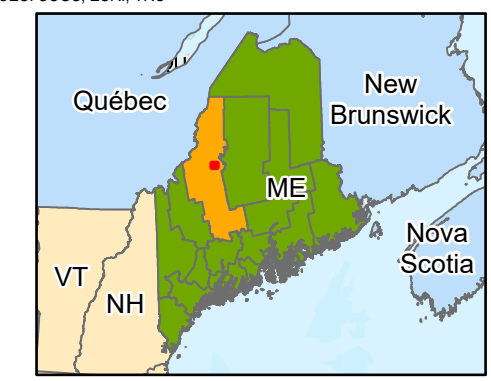
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PROJECT AREA

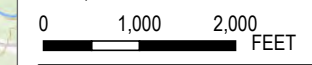
SA-1142



BASE MAP: GOOGLE IMAGERY SERVICE
DATA SOURCES: USGS, ESRI, TRC



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1" = 2,000'



PROJECT:		CPKC TRAIN DERAILMENT SANDWICH ACADEMY GRANT TOWNSHIP, MAINE	
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DRAWN BY:	E. YPSILANTIS	PROJ. NO.:	546184.0000.0000
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APPROVED BY:	M. BERGERON		
DATE:	OCTOBER 2023		



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PHONE: 207-621-7000

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63 Marginal Way, 4th Floor
Portland, ME 04101

Received 6/20/2024

SA-1142

T 207.879.1930

TRCcompanies.com

March 21, 2024

via email

Christopher Sockalexis, THPO
Cultural & Historic Preservation Department
Penobscot Nation
12 Wabanaki Way
Indian Island, ME 04468

**RE: Sandwich Academy Grant Township
CPKC Railway Train Derailment**

Dear Mr. Sockalexis,

On behalf of CPKC Railway (Applicant), TRC Companies, Inc. is providing notification for wetland and stream restoration work (the Project) associated with a CPKC Railway train derailment on Plan 01 Lot 2 in Sandwich Academy Grant Township (T2 R1 NBK), that took place on April 15, 2023. The Project site consists of approximately 3 acres of land between the CPKC Railroad and Little Brassua Lake in Sandwich Academy Grant Township, Somerset County, ME. Project components include wetland, stream, and upland restoration. The Applicant will be applying for a permit from the USACE for the associated restoration work. Please see the Project area shown on the Site Location Map attached.

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Karen E. Mack, M.S.

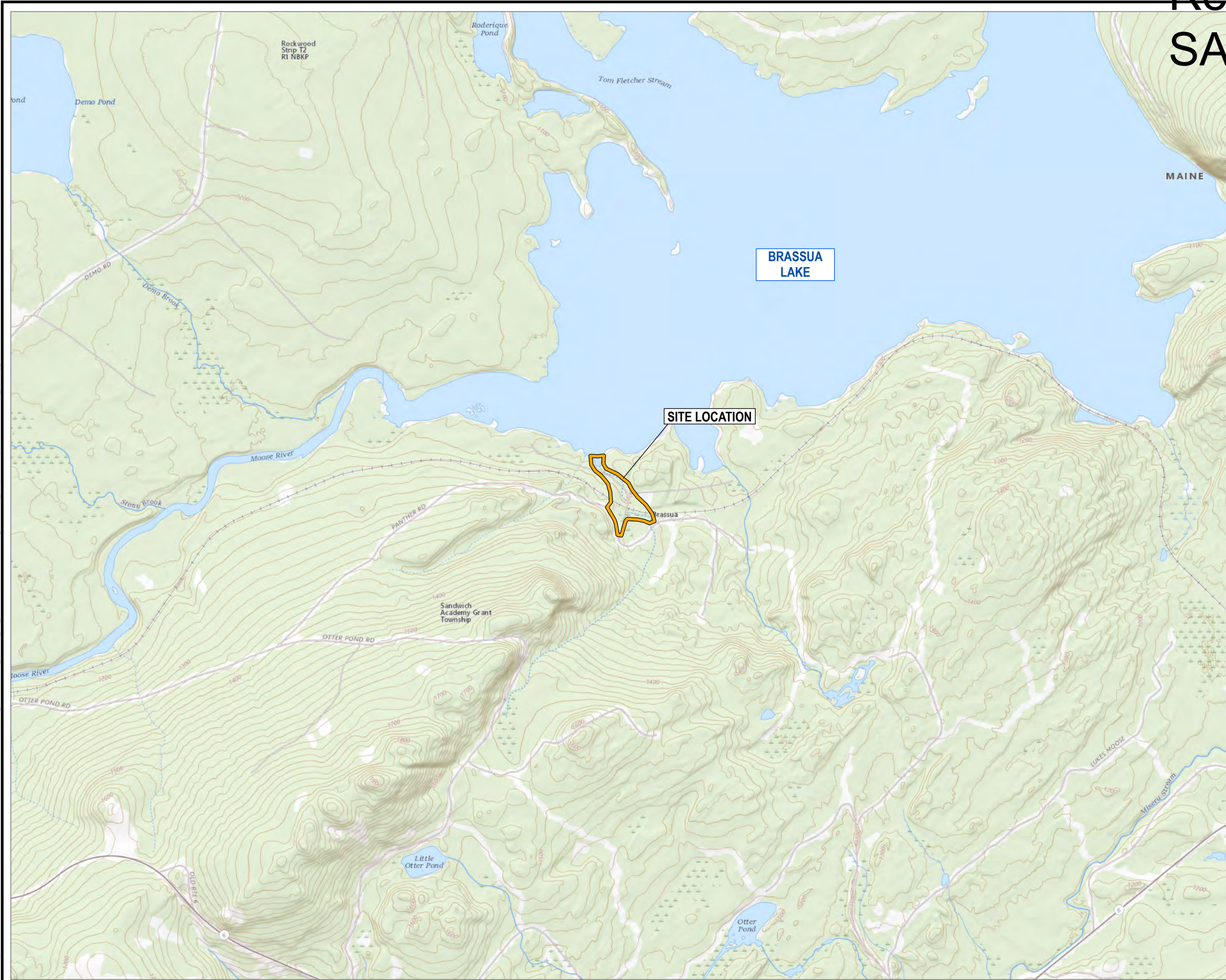
Principal Archaeologist

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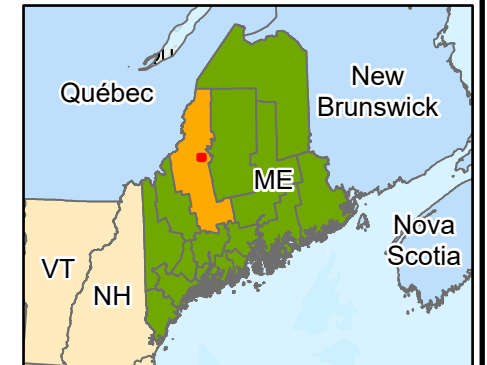
Figure 1. Site Location Map

PROJECT AREA

SA-1142



BASE MAP: GOOGLE IMAGERY SERVICE
DATA SOURCES: USGS, ESRI, TRC



1:24,000
1" = 2,000'



PROJECT:	CPKC TRAIN DERAILMENT SANDWICH ACADEMY GRANT TOWNSHIP, MAINE	
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TITLE:	SITE LOCATION MAP	
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DRAWN BY:	E. YPSILANTIS	PROJ. NO.:	546184.0000.0000
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CHECKED BY:	J. FREDENBURG	FIGURE 1
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APPROVED BY:	M. BERGERON
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DATE:	OCTOBER 2023
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	249 WESTERN AVE AUGUSTA, ME 04330 PHONE: 207-621-7000
	FILE: Brassua_Derailment_EY.aprx

Tribal Historic Preservation Office
Passamaquoddy Tribe
PO Box 159 Princeton, Me. 04668
207-214-4051

March 28, 2024

Jeremy Lessard, PWS.

TRC
Abby Young
P.O. Box 1068 Bath, ME 04530

- Re: Train Project-Plan 01 Lot 2 in Sandwich Academy Grant Township (T2 R1 NBK)

Dear Abby;

The Passamaquoddy THPO has reviewed the following application regarding the historic properties and significant religious and cultural properties in accordance with NHPA, NEPA, AIRFA, NAGPRA, ARPA, Executive Order 13007 Indian Sacred Sites, Executive Order 13175 Consultation and Coordination with Indian Tribal Governments, and Executive Order 12898 Environmental Justice.

The Projects listed above will not have any impact on cultural and historical concerns of the Passamaquoddy Tribe. Should buried artifacts, human remains, cultural sites or ground features be unexpectedly unearthed during ground disturbing activities, all construction should immediately cease and the resources be examined by a professional archaeologist. Additionally, all appropriate authorities-including all pertinent tribal entities should be notified.

Sincerely;

Donald Soctomah
Soctomah@gmail.com
THPO
Passamaquoddy Tribe

CPKC Train Derailment Stream Restoration Project, Sandwich Academy Grant Twp, Maine
Maine General Permit Application: Pre-Construction Notification
Land Use Planning Commission: Wetland Alteration and Shoreland Alteration Applications



ATTACHMENT 6. USACE WETLAND DETERMINATION DATA FORMS

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Brassua Train Derailment City/County: Rockwood, Somerset County Sampling Date: 2023-5-19
Applicant/Owner: Canada Pacific Kansas City State: ME Sampling Point: U-HSW-01
Investigator(s): Heather Storlazzi-Ward, Jason Tome Section, Township, Range:
Landform (hillslope, terrace, etc): Flat Local relief (concave, convex, none): Undulating Slope (%): 1 to 3
Subregion (LRR or MLRA): Lat: 45.6268858532 Long: -69.9160410091 Datum: WGS84
Soil Map Unit Name: NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No [X] (If no, explain in Remarks.)
Are Vegetation [X], Soil, or Hydrology [X] significantly disturbed? Are "Normal Circumstances" present? Yes No [X]
Are Vegetation [X], Soil [X], or Hydrology [X] naturally problematic? (If needed, explain any answers in Remarks.)

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

Table with 2 columns: Hydrophytic Vegetation Present?, Hydric Soil Present?, Wetland Hydrology Present? and Is the Sampled Area within a Wetland?. Includes checkboxes for Yes/No and a field for optional Wetland Site ID: U-HSW-01.

Remarks: (Explain alternative procedures here or in a separate report.)
Covertypes is UPL. Based on the absence of the wetland hydrology and hydric soil parameters, this area is an upland. Most standing trees area dead. Many trees dead and down or harvested many years ago (remaining stumps).

HYDROLOGY

Table with 2 columns: Wetland Hydrology Indicators (Primary Indicators) and Secondary Indicators (minimum of two required). Lists various indicators like Surface Water (A1), High Water Table (A2), etc.

Field Observations table with columns for Surface Water Present?, Water Table Present?, Saturation Present?, and Wetland Hydrology Present? with Yes/No checkboxes and depth fields.

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

Remarks:
Hydrology has been altered by beaver activity. Previous impoundments have caused vegetation die-back. Historical vegetation appears to be more forested prior to beaver impoundment. Currently, beaver impoundment appears to have been released and water levels are lower. Additionally, tree removal has occurred in this area potentially resulting in an increase in hydrology due to less water uptake from vegetation..

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status																																				
Tree Stratum (Plot size: <u>30 ft radius</u>)																																							
1. <u>Abies balsamea</u>	5	Yes	FAC	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A) Total Number of Dominant Species Across All Strata: <u>7</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>57.1%</u> (A/B)																																			
2. <u>Picea glauca</u>	5	Yes	FACU																																				
3. <u>Acer rubrum</u>	5	Yes	FAC																																				
4. _____																																							
5. _____																																							
6. _____																																							
7. _____																																							
	15	= Total Cover																																					
Sapling/Shrub Stratum (Plot size: <u>15 ft radius</u>)																																							
1. <u>Betula papyrifera</u>	15	Yes	FACU	Prevalence Index worksheet: <table style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:40%;"></th> <th style="width:10%;">Total % Cover of:</th> <th style="width:10%;"></th> <th style="width:10%;">Multiply by:</th> <th style="width:20%;"></th> </tr> </thead> <tbody> <tr> <td>OBL species</td> <td style="text-align:center;">50</td> <td>x 1 =</td> <td style="text-align:center;">50</td> <td></td> </tr> <tr> <td>FACW species</td> <td style="text-align:center;">5</td> <td>x 2 =</td> <td style="text-align:center;">10</td> <td></td> </tr> <tr> <td>FAC species</td> <td style="text-align:center;">20</td> <td>x 3 =</td> <td style="text-align:center;">60</td> <td></td> </tr> <tr> <td>FACU species</td> <td style="text-align:center;">65</td> <td>x 4 =</td> <td style="text-align:center;">260</td> <td></td> </tr> <tr> <td>UPL species</td> <td style="text-align:center;">0</td> <td>x 5 =</td> <td style="text-align:center;">0</td> <td></td> </tr> <tr> <td>Column Totals:</td> <td style="text-align:center; border-top: 1px solid black;">140</td> <td>(A)</td> <td style="text-align:center; border-top: 1px solid black;">380</td> <td>(B)</td> </tr> </tbody> </table> Prevalence Index = B/A = <u>2.7</u>		Total % Cover of:		Multiply by:		OBL species	50	x 1 =	50		FACW species	5	x 2 =	10		FAC species	20	x 3 =	60		FACU species	65	x 4 =	260		UPL species	0	x 5 =	0		Column Totals:	140	(A)	380	(B)
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2. <u>Abies balsamea</u>	10	Yes	FAC																																				
3. <u>Salix discolor</u>	5	No	FACW																																				
4. _____																																							
5. _____																																							
6. _____																																							
7. _____																																							
	30	= Total Cover																																					
Herb Stratum (Plot size: <u>5 ft radius</u>)																																							
1. <u>Scirpus cyperinus</u>	50	Yes	OBL	Hydrophytic Vegetation Indicators: ___ 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 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.																																			
2. <u>Maianthemum canadense</u>	20	Yes	FACU																																				
3. <u>Rubus allegheniensis</u>	15	No	FACU																																				
4. <u>Betula papyrifera</u>	10	No	FACU																																				
5. _____																																							
6. _____																																							
7. _____																																							
8. _____																																							
9. _____																																							
10. _____																																							
11. _____																																							
12. _____																																							
	95	= Total Cover																																					
Woody Vine Stratum (Plot size: <u>30 ft radius</u>)																																							
1. _____				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.																																			
2. _____																																							
3. _____																																							
4. _____																																							
	0	= Total Cover																																					
Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____																																							

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

This area was forested prior to beaver disturbance. Additionally, there is evidence of tree clearing in this area which removed the forested overstory. Almost all remaining overstory is dead.

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0 to 1	2.5Y 3/2		2.5Y 5/1	1			Silt Loam	
1 to 4	10YR 3/6		10YR 5/4	1			Silt	
4 to 12	10YR 4/4						Silt	
12 to 16	2.5Y 4/4						Silt	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: 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 P, S, T, U)

- 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 Soils³:

- 2 cm Muck (A10) (LRR K, L, MLRA 149B)
- Coast Prairie Redox (A16) (LRR K, L, R)
- 5 cm Muck Peat or Peat (S3) (LRR K, L, R)
- Dark Surface (S7) (LRR K, L)
- 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)

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

Restrictive Layer (if present):

Type: Not present
 Depth (inches): _____

Hydric Soil Present? Yes _____ No

Remarks:

No soil comments.

SAMPLE PLOT PHOTOS

Plot Photo(s) - N :



Plot Photo(s) - E:



WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Brassua Train Derailment City/County: Rockwood, Somerset County Sampling Date: 2023-5-19
 Applicant/Owner: Canada Pacific Kansas City State: ME Sampling Point: W-HSW-01_PFO-1
 Investigator(s): Heather-Storlazzi-Ward, Jason Tome Section, Township, Range: _____
 Landform (hillslope, terrace, etc): Depression Local relief (concave, convex, none): Concave Slope (%): 1 to 3
 Subregion (LRR or MLRA): _____ Lat: 45.6269414221 Long: -69.9165536463 Datum: WGS84
 Soil Map Unit Name: _____ NWI Classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No X (If no, explain in Remarks.)
 Are Vegetation X, Soil _____, or Hydrology X significantly disturbed? Are "Normal Circumstances" present? Yes _____ No X
 Are Vegetation X, Soil X, or Hydrology X 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 <u>X</u> No _____	Is the Sampled Area within a Wetland? Yes <u>X</u> No _____ If yes, optional Wetland Site ID: <u>W-HSW-01</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)
 Covertypes is PFO. Based on the presence of all three parameters, this area is a wetland. Circumstances not normal due to release of beaver impoundment caused from train derailment.

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) <input type="checkbox"/> Surface Water (A1) <input checked="" type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Aquatic Fauna (B13) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) <input checked="" type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	Secondary Indicators (minimum of two required) <input type="checkbox"/> Surface Soil Cracks (B6) <input checked="" type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input checked="" type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
---	--

Field Observations: Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes <u>X</u> No _____ Depth (inches): <u>1</u> (includes capillary fringe)	Wetland Hydrology Present? Yes <u>X</u> No _____
---	---

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

Remarks:
 The criterion for wetland hydrology is met.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status																																				
Tree Stratum (Plot size: <u>30 ft radius</u>)																																							
1. <u>Thuja occidentalis</u>	1	No	FACW	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)																																			
2. <u>Abies balsamea</u>	1	No	FAC																																				
3. <u>Betula alleghaniensis</u>	1	No	FAC																																				
4. _____																																							
5. _____																																							
6. _____																																							
7. _____																																							
	<u>3</u>	= Total Cover																																					
Sapling/Shrub Stratum (Plot size: <u>15 ft radius</u>)																																							
1. <u>Salix discolor</u>	50	Yes	FACW	Prevalence Index worksheet: <table style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:50%;"></th> <th style="width:10%; text-align:center;">Total % Cover of:</th> <th style="width:10%;"></th> <th style="width:10%; text-align:center;">Multiply by:</th> <th style="width:15%;"></th> </tr> </thead> <tbody> <tr> <td>OBL species</td> <td style="text-align:center"><u>0</u></td> <td>x 1 =</td> <td style="text-align:center"><u>0</u></td> <td></td> </tr> <tr> <td>FACW species</td> <td style="text-align:center"><u>71</u></td> <td>x 2 =</td> <td style="text-align:center"><u>142</u></td> <td></td> </tr> <tr> <td>FAC species</td> <td style="text-align:center"><u>2</u></td> <td>x 3 =</td> <td style="text-align:center"><u>6</u></td> <td></td> </tr> <tr> <td>FACU species</td> <td style="text-align:center"><u>0</u></td> <td>x 4 =</td> <td style="text-align:center"><u>0</u></td> <td></td> </tr> <tr> <td>UPL species</td> <td style="text-align:center"><u>0</u></td> <td>x 5 =</td> <td style="text-align:center"><u>0</u></td> <td></td> </tr> <tr> <td>Column Totals:</td> <td style="text-align:center"><u>73</u></td> <td>(A)</td> <td style="text-align:center"><u>148</u></td> <td>(B)</td> </tr> </tbody> </table> Prevalence Index = B/A = <u>2</u>		Total % Cover of:		Multiply by:		OBL species	<u>0</u>	x 1 =	<u>0</u>		FACW species	<u>71</u>	x 2 =	<u>142</u>		FAC species	<u>2</u>	x 3 =	<u>6</u>		FACU species	<u>0</u>	x 4 =	<u>0</u>		UPL species	<u>0</u>	x 5 =	<u>0</u>		Column Totals:	<u>73</u>	(A)	<u>148</u>	(B)
	Total % Cover of:		Multiply by:																																				
OBL species	<u>0</u>	x 1 =	<u>0</u>																																				
FACW species	<u>71</u>	x 2 =	<u>142</u>																																				
FAC species	<u>2</u>	x 3 =	<u>6</u>																																				
FACU species	<u>0</u>	x 4 =	<u>0</u>																																				
UPL species	<u>0</u>	x 5 =	<u>0</u>																																				
Column Totals:	<u>73</u>	(A)	<u>148</u>	(B)																																			
2. _____																																							
3. _____																																							
4. _____																																							
5. _____																																							
6. _____																																							
7. _____																																							
	<u>50</u>	= Total Cover																																					
Herb Stratum (Plot size: <u>5 ft radius</u>)																																							
1. <u>Salix discolor</u>	20	Yes	FACW	Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is $\leq 3.0^1$ ___ 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.																																			
2. _____																																							
3. _____																																							
4. _____																																							
5. _____																																							
6. _____																																							
7. _____																																							
8. _____																																							
9. _____																																							
10. _____																																							
11. _____																																							
12. _____																																							
	<u>20</u>	= Total Cover																																					
Woody Vine Stratum (Plot size: <u>30 ft radius</u>)																																							
1. _____				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.																																			
2. _____																																							
3. _____																																							
4. _____																																							
	<u>0</u>	= Total Cover																																					
				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____																																			

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

This area seems to have been forested prior to beaver disturbance. Additionally, there is evidence of tree clearing in this area which removed the forested overstory. Much of the shrub layer is dead from inundation. .

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0 to 4	10YR 3/1		7.5YR 3/4	20	C	M	Silt Loam	
0 to 4	10YR 3/1		5Y 3/1	10	D	M	Silt Loam	
4 to 9	5Y 5/3		10YR 4/6	15	C	M	Silt	
4 to 9	5Y 5/3		2.5Y 5/2	10	D	M	Silt	
9 to 14	5Y 4/3		10YR 4/6	10	C	M	Silt	
9 to 14	5Y 4/3		2.5Y 5/2	5	D	M	Silt	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: 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 P, S, T, U)**

- 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 Soils³:

- 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- Coast Prairie Redox (A16) **(LRR K, L, R)**
- 5 cm Muck Peat or Peat (S3) **(LRR K, L, R)**
- Dark Surface (S7) **(LRR K, L)**
- 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)

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

Restrictive Layer (if present):

Type: Not present
 Depth (inches): _____

Hydric Soil Present? Yes No

Remarks:

The criterion for hydric soil is met.

SAMPLE PLOT PHOTOS

Plot Photo(s) - SW :



Plot Photo(s) - E:



Plot Photo(s) - S:



Plot Photo(s) - W:



WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Brassua Train Derailment City/County: Somerset County Sampling Date: 2023-5-19
Applicant/Owner: Canada Pacific Kansas City State: ME Sampling Point: W-HSW-02_PFO-1
Investigator(s): Heather Storlazzi-ward, Jason Tome Section, Township, Range: NA
Landform (hillslope, terrace, etc): Hillslope Local relief (concave, convex, none): Concave Slope (%): 1 to 10
Subregion (LRR or MLRA): MLRA 143 of LRR R Lat: 45.629059 Long: -69.918117 Datum: WGS84
Soil Map Unit Name: Telos-Chesuncook-Elliottsville association, 3 to 15 percent slopes, very stony NWI Classification: None
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
Hydric Soil Present? Yes X No
Wetland Hydrology Present? Yes X No
Is the Sampled Area within a Wetland? Yes X No
If yes, optional Wetland Site ID: W-HSW-02
Remarks: (Explain alternative procedures here or in a separate report.)
Coverture is PFO. Based on the presence of all three parameters, this area is a wetland.

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply)
Secondary Indicators (minimum of two required)
Surface Water (A1) Water-Stained Leaves (B9)
High Water Table (A2) Aquatic Fauna (B13)
X Saturation (A3) Marl Deposits (B15)
Water Marks (B1) Hydrogen Sulfide Odor (C1)
Sediment Deposits (B2) X Oxidized Rhizospheres along Living Roots (C3)
Drift Deposits (B3) Presence of Reduced Iron (C4)
Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6)
Iron Deposits (B5) Thin Muck Surface (C7)
Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks)
Sparsely Vegetated Concave Surface (B8) FAC-Neutral Test (D5) X

Field Observations:
Surface Water Present? Yes No X Depth (inches):
Water Table Present? Yes X No Depth (inches): 0
Saturation Present? 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:
Side slope seepage wetland.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status	
Tree Stratum (Plot size: <u>30 ft radius</u>)				
1.				
2.				
3.				
4.				
5.				
6.				
7.				
	0			= Total Cover
Sapling/Shrub Stratum (Plot size: <u>15 ft radius</u>)				
1.	<u>Acer rubrum</u>	5	Yes	FAC
2.	<u>Abies balsamea</u>	2	Yes	FAC
3.				
4.				
5.				
6.				
7.				
	7			= Total Cover
Herb Stratum (Plot size: <u>5 ft radius</u>)				
1.	<u>Impatiens capensis</u>	20	Yes	FACW
2.	<u>Onoclea sensibilis</u>	10	Yes	FACW
3.	<u>Dryopteris carthusiana</u>	5	No	FACW
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
	35			= Total Cover
Woody Vine Stratum (Plot size: <u>30 ft radius</u>)				
1.				
2.				
3.				
4.				
	0			= 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: 4 (B)
 Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:		
OBL species	<u>0</u>	x 1 =	<u>0</u>	
FACW species	<u>35</u>	x 2 =	<u>70</u>	
FAC species	<u>7</u>	x 3 =	<u>21</u>	
FACU species	<u>0</u>	x 4 =	<u>0</u>	
UPL species	<u>0</u>	x 5 =	<u>0</u>	
Column Totals:	<u>42</u> (A)		<u>91</u> (B)	

Prevalence Index = B/A = 2.2

Hydrophytic Vegetation Indicators:
 1 - Rapid Test for Hydrophytic Vegetation
 2 - Dominance Test is >50%
 3 - Prevalence Index is ≤3.0¹
 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
 Problematic Hydrophytic Vegetation¹ (Explain)
¹Indicators 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

Remarks: (Include photo numbers here or on a separate sheet.)
 No vegetation comments.

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
1 to 9	2.5Y 2.5/1						Muck	
9 to 14	10Y 4/1	50	2.5Y 5/6	20	C	M	Silt	
9 to 14	10Y 4/1		5Y 5/3	10	C	M	Silt	
9 to 14	10Y 4/1		5Y 5/4	20	C	M	Silt	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: 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 P, S, T, U)

- 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 Soils³:

- 2 cm Muck (A10) (LRR K, L, MLRA 149B)
- Coast Prairie Redox (A16) (LRR K, L, R)
- 5 cm Muck Peat or Peat (S3) (LRR K, L, R)
- Dark Surface (S7) (LRR K, L)
- 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)

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

Restrictive Layer (if present):

Type: Not present
 Depth (inches): _____

Hydric Soil Present? Yes No

Remarks:

The criterion for hydric soil is met.

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Brassua Train Derailment City/County: Somerset Sampling Date: 2023-5-19
Applicant/Owner: Canada Pacific Kansas City State: ME Sampling Point: W-HSW-03_PFO-1
Investigator(s): Heather Storlazzi-Ward, Jason Tome Section, Township, Range: NA
Landform (hillslope, terrace, etc): Hillslope Local relief (concave, convex, none): Concave Slope (%): 1 to 10
Subregion (LRR or MLRA): MLRA 143 of LRR R Lat: 45.628956 Long: -69.918066 Datum: WGS84
Soil Map Unit Name: Telos-Chesuncook-Elliottsville association, 3 to 15 percent slopes, very stony NWI Classification: None
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No
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
Hydric Soil Present? Yes X No
Wetland Hydrology Present? Yes X No
Is the Sampled Area within a Wetland? Yes X No
If yes, optional Wetland Site ID: W-HSW-03
Remarks: (Explain alternative procedures here or in a separate report.)
Coverture is PFO. Based on the presence of all three parameters, this area is a wetland.

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply)
Secondary Indicators (minimum of two required)
X Surface Water (A1) Water-Stained Leaves (B9)
X High Water Table (A2) Aquatic Fauna (B13)
X Saturation (A3) Marl Deposits (B15)
Water Marks (B1) Hydrogen Sulfide Odor (C1)
Sediment Deposits (B2) Oxidized Rhizospheres along Living Roots (C3)
Drift Deposits (B3) Presence of Reduced Iron (C4)
Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6)
Iron Deposits (B5) Thin Muck Surface (C7)
Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks)
Sparsely Vegetated Concave Surface (B8) FAC-Neutral Test (D5)

Field Observations:
Surface Water Present? Yes X No Depth (inches): 1
Water Table Present? Yes X No Depth (inches): 2
Saturation Present? 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:
Side slope seepage wetland.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status															
Tree Stratum (Plot size: <u>30 ft radius</u>)																		
1. <u><i>Acer rubrum</i></u>	20	Yes	FAC	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>6</u> (A) Total Number of Dominant Species Across All Strata: <u>7</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>85.7%</u> (A/B)														
2. <u><i>Abies balsamea</i></u>	15	Yes	FAC															
3. <u><i>Picea rubens</i></u>	10	Yes	FACU															
4. _____																		
5. _____																		
6. _____																		
7. _____																		
	45	= Total Cover																
Sapling/Shrub Stratum (Plot size: <u>15 ft radius</u>)																		
1. <u><i>Acer rubrum</i></u>	20	Yes	FAC	Prevalence Index worksheet: <table style="width:100%; border:none;"> <tr> <td style="text-align:right">Total % Cover of:</td> <td style="text-align:center">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>55</u></td> <td>x 2 = <u>110</u></td> </tr> <tr> <td>FAC species <u>75</u></td> <td>x 3 = <u>225</u></td> </tr> <tr> <td>FACU species <u>15</u></td> <td>x 4 = <u>60</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>145</u> (A)</td> <td><u>395</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>2.7</u>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>55</u>	x 2 = <u>110</u>	FAC species <u>75</u>	x 3 = <u>225</u>	FACU species <u>15</u>	x 4 = <u>60</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>145</u> (A)	<u>395</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>0</u>	x 1 = <u>0</u>																	
FACW species <u>55</u>	x 2 = <u>110</u>																	
FAC species <u>75</u>	x 3 = <u>225</u>																	
FACU species <u>15</u>	x 4 = <u>60</u>																	
UPL species <u>0</u>	x 5 = <u>0</u>																	
Column Totals: <u>145</u> (A)	<u>395</u> (B)																	
2. <u><i>Abies balsamea</i></u>	10	Yes	FAC															
3. <u><i>Betula alleghaniensis</i></u>	10	Yes	FAC															
4. <u><i>Fraxinus pennsylvanica</i></u>	5	No	FACW															
5. _____																		
6. _____																		
7. _____																		
	45	= Total Cover																
Herb Stratum (Plot size: <u>5 ft radius</u>)																		
1. <u><i>Impatiens capensis</i></u>	50	Yes	FACW	Hydrophytic Vegetation Indicators: ___ 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 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.														
2. <u><i>Tussilago farfara</i></u>	5	No	FACU															
3. _____																		
4. _____																		
5. _____																		
6. _____																		
7. _____																		
8. _____																		
9. _____																		
10. _____																		
11. _____																		
12. _____																		
	55	= Total Cover																
Woody Vine Stratum (Plot size: <u>30 ft radius</u>)																		
1. _____				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.														
2. _____																		
3. _____																		
4. _____																		
	0	= Total Cover																
				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____														

Remarks: (Include photo numbers here or on a separate sheet.)
 The criterion for hydrophytic vegetation is met.

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
1 to 19	10YR 3/2	85		15	C	PL	Silt Loam	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: 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 P, S, T, U)

- 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 Soils³:

- 2 cm Muck (A10) (LRR K, L, MLRA 149B)
- Coast Prairie Redox (A16) (LRR K, L, R)
- 5 cm Muck Peat or Peat (S3) (LRR K, L, R)
- Dark Surface (S7) (LRR K, L)
- 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)

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

Restrictive Layer (if present):

Type: Not present
 Depth (inches): _____

Hydric Soil Present? Yes No

Remarks:

The criterion for hydric soil is met.

SAMPLE PLOT PHOTOS

Plot Photo(s) - S :



Plot Photo(s) - N:



Plot Photo(s) - W:



CPKC Train Derailment Stream Restoration Project, Sandwich Academy Grant Twp, Maine
Maine General Permit Application: Pre-Construction Notification
Land Use Planning Commission: Wetland Alteration and Shoreland Alteration Applications



ATTACHMENT 7. EROSION AND SEDIMENT CONTROL PLAN

ATTACHMENT 7. EROSION CONTROL PLAN

7.1 Introduction

The Applicant proposes to construct the Project in conformance with the Maine Erosion and Sedimentation Control Law and the LUPC application requirements so that restoration activities will not unreasonably:

- Cause soil erosion or siltation in waterbodies, protected natural resources, or offsite areas;
- Interfere with natural flow of water;
- Degrade fish or wildlife habitat; or
- Degrade water quality.

The proposed erosion and sedimentation control measures are based on the MDEP's Erosion and Sediment Control BMPs Manual, dated October 2016. Erosion and sedimentation controls will be installed prior to the start of restoration activities to prevent sedimentation into offsite areas or protected natural resources. Detailed erosion control and sediment control plans have been prepared and are included in Attachment 4, Sheets G-003 and C-200.

7.2 Erosion Control Measures

Construction of the Project may require the installation and maintenance of the following erosion and sedimentation control measures or practices. Anticipated BMPs are indicated on the civil design drawings C Plan (Attachment 4, Sheets G-003 (erosion control notes & details) and C-200 (Site preparation plan)) and shall be considered minimum measures. Changes or alterations in work practices, site conditions, or extreme weather conditions may require additional BMPs as deemed necessary by the Engineer to prevent erosion and sedimentation and/or to protect natural resources or other sensitive receptors.

7.3 Inspection & Maintenance

The Contractor shall bear the responsibility of installation, maintenance, and day to day monitoring, repair, and replacement of erosion and sedimentation control measures throughout the entire duration of Project construction. It is the responsibility of the Contractor to ensure installed measures are effective and functioning as designed. Inspections may indicate additional or more substantive measures are required. In the event of a deficiency in erosion control measures, the contractor will install additional controls or use different techniques to correct the deficiency and try to prevent future issues.

Dust will be controlled by water or calcium chloride along Panther Road. Demo Road is actively used by Weyerhaeuser's harvesting operations, and they are responsible for maintaining this road. Dust on the Project site will be controlled with water being sprayed on upland areas when necessary.

Duration of exposed soils will be kept as short as practicable. Straw mulch will be applied over

exposed soils that are not being worked. Once an area is restored, the ground will be seeded with the appropriate seed mix. Plantings will occur in specific locations (Attachment 4, Sheet C-302).

At a minimum, inspections shall be conducted on a weekly basis and within 24-hours of a significant rain event. Inspections shall be documented in site inspection reports that will be submitted to CPKC.

Debris from the derailment and debris generated from restoration efforts will be properly disposed of. Temporary erosion controls will be removed when soil stabilization is achieved. Areas requiring re-vegetation will meet 95% established vegetated cover prior to removing temporary controls.

CPKC Train Derailment Stream Restoration Project, Sandwich Academy Grant Twp, Maine
Maine General Permit Application: Pre-Construction Notification
Land Use Planning Commission: Wetland Alteration and Shoreland Alteration Applications



ATTACHMENT 8. TITLE, RIGHT, INTEREST

- Property Deed
- Weyerhaeuser Letter Granting Permission of Use (FORTHCOMING)

AFFIDAVIT OF TITLE

I, Brian C. Browne, being duly sworn, depose and say as follows:

WHEREAS, I am an attorney licensed to practice law in the State of Maine, who is over the age of 21 and whose office is located at 10 Free Street in Portland, Maine;

WHEREAS, I have knowledge of Plum Creek Maine Timberlands, L.L.C. and its affiliated companies and the matters described below;

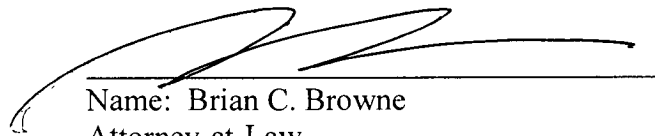
WHEREAS, Plum Creek Maine Timberlands, L.L.C., a Delaware Limited Liability Company, has been merged with and into Plum Creek Timberlands, L.P., a Delaware Limited Partnership, as documented by the attached true and correct copies of the Certificate of Merger issued by the State of Delaware Secretary of State's Office on the 28th of September, 2016 and the Certificate of Merger made by Plum Creek Timberland, L.P., dated September 21, 2016.

WHEREAS, Plum Creek Timberlands, L.P. a Delaware Limited Liability Partnership has been merged with and into Weyerhaeuser Company, a State of Washington corporation, as documented by the attached true and correct copy of the Certificate of Merger issued by the State of Washington's Secretary of State's Office, on the 12th of October, 2016 and the attached Articles of Merger made by Weyerhaeuser Company, dated September 7, 2016 and the attached Agreement and Plan of Merger made by Plum Creek Timberlands, L.P. and Weyerhaeuser Company, dated September 7, 2016.

NOW, THEREFORE, KNOW ALL PERSONS BY THESE PRESENTS, that,

Weyerhaeuser Company is the surviving entity after the mergers described above.

DATED: November 8th, 2016

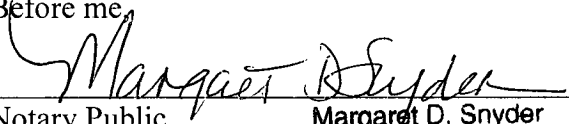

Name: Brian C. Browne
Attorney-at-Law

STATE OF MAINE
County of Cumberland, ss.

November 8, 2016

Personally appeared the above named Brian C. Browne and swore the foregoing instrument to be his free act and deed.

Before me



Notary Public

Margaret D. Snyder
Notary Public, Maine
My Commission Expires March 23, 2023

Delaware

The First State

Page 1

I, JEFFREY W. BULLOCK, SECRETARY OF STATE OF THE STATE OF DELAWARE, DO HEREBY CERTIFY THE ATTACHED IS A TRUE AND CORRECT COPY OF THE CERTIFICATE OF MERGER, WHICH MERGES:

"PLUM CREEK MAINE TIMBERLANDS, L.L.C.", A DELAWARE LIMITED LIABILITY COMPANY,

WITH AND INTO "PLUM CREEK TIMBERLANDS, L.P." UNDER THE NAME OF "PLUM CREEK TIMBERLANDS, L.P.", A LIMITED PARTNERSHIP ORGANIZED AND EXISTING UNDER THE LAWS OF THE STATE OF DELAWARE, AS RECEIVED AND FILED IN THIS OFFICE ON THE TWENTY-EIGHTH DAY OF SEPTEMBER, A.D. 2016, AT 11:46 O'CLOCK A.M.

AND I DO HEREBY FURTHER CERTIFY THAT THE EFFECTIVE DATE OF THE AFORESAID CERTIFICATE OF MERGER IS THE TWENTY-EIGHTH DAY OF SEPTEMBER, A.D. 2016 AT 11:58 O'CLOCK P.M.

Handwritten signature of Jeffrey W. Bullock, Secretary of State, in black ink.

Jeffrey W. Bullock, Secretary of State

2953736 8100M
SR# 20166451316

Authentication: 203262181
Date: 11-01-16

You may verify this certificate online at corp.delaware.gov/authver.shtml

State of Delaware
Secretary of State
Division of Corporations
Delivered 11:46 AM 09/28/2016
FILED 11:46 AM 09/28/2016
SR 20165974599 - File Number 2921725

CERTIFICATE OF MERGER
OF
PLUM CREEK MAINE TIMBERLANDS, L.L.C.
A DELAWARE LIMITED LIABILITY COMPANY

WITH AND INTO

PLUM CREEK TIMBERLANDS, L.P.,
A DELAWARE LIMITED PARTNERSHIP

Pursuant to Title 6, Section 17-211 of the Delaware Limited Partnership Act and Title 6, Section 18-209 of the Delaware Limited Liability Company Act, the undersigned executed the following Certificate of Merger:

FIRST: The name of the surviving corporation is Plum Creek Timberlands, L.P., a Delaware limited partnership (the "Surviving Company")

SECOND: The name of the limited liability company being merged into the Surviving Company is Plum Creek Maine Timberlands, L.L.C., a Delaware limited liability company (the "Disappearing Company").

THIRD: The Agreement and Plan of Merger has been approved, adopted, certified, executed and acknowledged by the Surviving Company and the Disappearing Company.

FOURTH: This Certificate of Merger shall be effective on September 28, 2016 at 11:58 pm ET.


FIFTH: The Agreement and Plan of Merger is on file at the place of business of the Surviving Company, which principal address is: 220 Occidental Avenue South, Seattle, Washington 98104.

SIXTH: A copy of the Agreement and Plan of Merger will be furnished by the Surviving Company on request, without cost, to any stockholder or any person holding an interest in either of the companies that are parties to this merger

Dated as of the 21st day of September, 2016.

PLUM CREEK TIMBERLANDS, L.P.,
a Delaware limited partnership

By: Plum Creek Timber I, L.L.C.
Its sole general partner

By: 
Paul A. Stamnes
President

UNITED STATES OF AMERICA

The State of



Washington

Secretary of State

I, Kim Wyman, Secretary of State of the State of Washington and custodian of its seal, hereby issue this certificate that the attached is a true and correct copy of

ARTICLES OF MERGER

of

WEYERHAEUSER COMPANY

as filed in this office on September 28, 2016.

Date: October 12, 2016



Given under my hand and the Seal of the State of Washington at Olympia, the State Capital

Kim Wyman

Kim Wyman, Secretary of State

FILED

SEP 28 2016

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ARTICLES OF MERGER

WA SECRETARY OF STATE

OF

PLUM CREEK TIMBERLANDS, L.P.,
A DELAWARE LIMITED PARTNERSHIP

WITH AND INTO

WEYERHAEUSER COMPANY,
A WASHINGTON CORPORATION

Pursuant to RCW § 23B.11.110, the undersigned officer of Weyerhaeuser Company, a Washington corporation (the "Surviving Corporation") hereby certifies as follows:

- FIRST: The Agreement and Plan of Merger is attached hereto as Exhibit A.
- SECOND: The merger was approved by the general and limited partners of Plum Creek Timberlands, L.P., a Delaware limited partnership (the "Merging Company") pursuant to Title 6, Section 17-211 of the Delaware Limited Partnership Act.
- THIRD: The merger was duly approved by the board of directors of the Surviving Corporation pursuant to RCW §23B.11.030.
- FOURTH: The Articles of Incorporation of the Surviving Corporation shall be its Articles of Incorporation.
- FIFTH: The merger of the Merging Company with and into the Surviving Corporation shall be effective as of 8:59 p.m. Pacific Time on September 28, 2016.

[signature on following page]

IN WITNESS WHEREOF, the Surviving Corporation has caused this certificate to be signed by its authorized officer, this 7th day of September, 2016.

WEYERHAEUSER COMPANY,
a Washington corporation

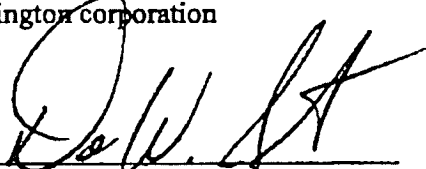
By: 
Devin W. Stockfish
Senior Vice President, General Counsel
and Secretary

EXHIBIT A
AGREEMENT AND PLAN OF MERGER

[see attached]

AGREEMENT AND PLAN OF MERGER

THIS AGREEMENT AND PLAN OF MERGER (this "Agreement") is entered into as of September 7, 2016 between Weyerhaeuser Company, a Washington corporation ("Weyerhaeuser"), and Plum Creek Timberlands, L.P., a Delaware limited partnership (the "Disappearing Company"). Weyerhaeuser and the Disappearing Company are sometimes collectively referred to in this Agreement as the "Constituent Entities."

RECITALS

A. Weyerhaeuser is a corporation organized and existing under the laws of the state of Washington.

B. The Disappearing Company is a limited partnership organized and existing under the laws of the state of Delaware, having partnership interests issued and governed pursuant to the Amended and Restated Agreement of Limited Partnership dated as of September 29, 2008.

C. The Constituent Entities deem it advisable and in the best interests of each entity that the Disappearing Company be merged into Weyerhaeuser (the "Merger") as authorized by the laws of the states of Washington and Delaware.

AGREEMENT

In consideration of the foregoing recitals and of the covenants and agreements hereinafter set forth and for the purpose of prescribing the terms and conditions of the Merger, the parties agree as follows:

1. Merger; Effectiveness

The Disappearing Company shall be merged into Weyerhaeuser (hereinafter sometimes called the "Surviving Corporation"), pursuant to the applicable provisions of the Washington Business Corporation Act and the Delaware Revised Uniform Limited Partnership Act and in accordance with the terms and conditions of this Agreement.

Upon completion of the following events:

- (a) the approval of the plan of merger as stated herein by the Board of Directors of Weyerhaeuser;
- (b) the approval of the plan of merger as stated herein by the general and limited partners of the Disappearing Company;
- (c) the execution by the Surviving Corporation of Articles of Merger incorporating this Agreement and the filing of such Articles of Merger with the Secretary of State of the state of Washington; and

(d) the execution by the Surviving Corporation of a Certificate of Merger and the filing of such Certificate of Merger with the Secretary of State of the state of Delaware; then

the Merger shall become effective at 8:59 p.m. Pacific Time on September 28, 2016 (the "Effective Time").

2. Articles of Incorporation

The Articles of Incorporation of Weyerhaeuser in effect immediately prior to the Effective Time shall, at the Effective Time, be and remain the Articles of Incorporation of the Surviving Corporation until the same shall be altered, amended or repealed as therein provided.

3. Bylaws

The Bylaws of Weyerhaeuser in effect immediately prior to the Effective Time shall, at the Effective Time, be and remain the Bylaws of the Surviving Corporation until the same shall be altered, amended or repealed as therein provided.

4. Directors and Officers

The directors and officers of Weyerhaeuser immediately prior to the Effective Time shall, at the Effective Time, continue in office as the directors and officers of the Surviving Corporation and shall hold office in accordance with and subject to the Articles of Incorporation and Bylaws of the Surviving Corporation.

5. Conversion of Partnership Interests

At the Effective Time, by virtue of the Merger and without any action on the part of the holders of the partnership interests of the Disappearing Company, all outstanding partnership interests of the Disappearing Company, all of which are directly or indirectly owned by the Surviving Corporation, shall be cancelled, and no consideration shall be delivered in exchange therefor.

6. Rights, Duties, Powers, Liabilities, Etc.

At the Effective Time, (a) the separate existence of the Disappearing Company shall cease, and the Disappearing Company shall be merged in accordance with the provisions of this Agreement into the Surviving Corporation, which shall possess all the properties and assets, and all the rights, privileges, powers, immunities and franchises, of whatever nature and description, and shall be subject to all restrictions, disabilities and duties, of each of the Constituent Entities; and all such things shall be taken and deemed to be transferred to and vested in the Surviving Corporation without any further act or deed; (b) the title to all real estate, or any interest therein, vested by deed or otherwise in either of the Constituent Entities shall vest in the Surviving Corporation without reversion or impairment, (c) the Surviving Corporation shall have all liabilities of each of the Constituent Entities, and (d) any claim

existing, or action or proceeding, whether civil, criminal or administrative, pending by or against the Disappearing Company may be prosecuted to judgment or decree as if the Merger had not taken place, and the Surviving Corporation may be substituted in any such action or proceeding.

7. Implementation.

(a) The Disappearing Company hereby agrees that at any time or from time to time as and when requested by the Surviving Corporation, or by its successors or assigns, it will so far as it is legally able, execute and deliver, or cause to be executed and delivered in its name by its last acting officers, or by the corresponding officers of the Surviving Corporation, each of whom is hereby irrevocably appointed as attorney-in-fact for such purposes, all such conveyances, assignments, transfers, deeds or other instruments, and will take or cause to be taken such further or other actions as the Surviving Corporation, its successors or assigns, may deem necessary or desirable in order to evidence the transfer, vesting and devolution of any property, right, privilege, power, immunity or franchise to vest or perfect in or confirm to the Surviving Corporation, its successors or assigns, title to and possession of all the property, rights, privileges, powers, immunities, franchises and interests referred to in this Agreement and otherwise to carry out the intent and purposes hereof.

(b) Each of the Constituent Entities shall take, or cause to be taken, all action or do, or cause to be done, all things necessary, proper or advisable under the laws of the states of Washington and Delaware to consummate and make effective the Merger.

8. Termination

This Agreement may be terminated for any reason at any time before the filing of Articles of Merger with the Secretary of State of the state of Washington or the filing of a Certificate of Merger with the Secretary of State of the state of Delaware by resolution of the Board of Directors of Weyerhaeuser.

9. Amendment

This Agreement may, to the extent permitted by law, be amended, supplemented or interpreted at any time by action taken by the Board of Directors of Weyerhaeuser.

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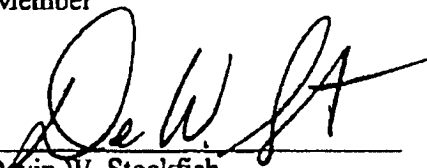
IN WITNESS WHEREOF, the parties hereto have entered into and signed this Agreement as of the date and year first above written.

DISAPPEARING COMPANY:

PLUM CREEK TIMBERLANDS, L.P.,
a Delaware limited partnership

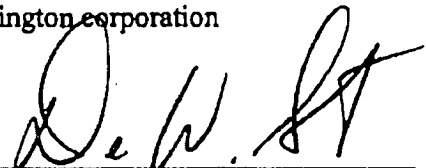
By: Plum Creek Timber I, L.L.C.,
a Delaware limited liability company
its general partner

By: Weyerhaeuser Company,
a Washington corporation
Its Sole Member

By: 
Devin W. Stockfish
Senior Vice President, General Counsel
and Secretary

SURVIVING CORPORATION:

WEYEHAEUSER COMPANY,
a Washington corporation

By: 
Devin W. Stockfish
Senior Vice President, General Counsel
and Secretary