Winooski Basin Clean Water Service Provider:
FY24 Round 4 Call for Proposals

The Central Vermont Regional Planning Commission, in its role as the Clean Water Service Provider for the Winooski Basin, is accepting applications for funding for non-regulatory, phosphorous reduction projects that improve water quality. Fiscal Year 2024 - Round 4 proposals are due by 4:00 PM on 9 May 2024. For more information, including submission details, see the Winooski Clean Water Service Provider webpage.

0. Project Eligibility

Please Review the following reference materials before completing your proposal:

- *FY23 Clean Water Initiative Program Funding Policy*
- *Act 76, Clean Water Service Provider Rule and Guidance & explanatory materials*

Is the portion of the project for which you seek funding both non-regulatory and voluntary? (i.e. not a required or compelled element of a regulatory permit or a legal settlement)? **(answer must be Yes to proceed)**	Yes
Does the project type meet the applicable definitions and minimum standards in the FY23 Clean Water Initiative Funding Policy? **(answer must be Yes to proceed)**	Yes

1. Applicant Information

Organization/Municipality Name: Friends of the Winooski River
Primary Contact: Michele Braun
Title: Executive Director
Mailing Address: Po Box 777, Montpelier VT, 05601
Phone Number: 802-279-3771
E-mail Address: michele@winooskiriver.org

Has the proposing organization / municipality been pre-qualified to receive subcontracts / subgrants from the Central Vermont Regional Planning Commission serving in its capacity as the Winooski Basin Clean Water Service Provider?* * If you responded no to this question, please include Qualification Materials along with your funding proposal. See the Winooski Clean Water Service Provider webpage for more details.	Yes

2. Project Information

Project Title: Long Meadow Brook SWA
Watershed Projects Database ID*: 12351

* Projects without a Watershed Projects Database ID will be evaluated. However, prior to receiving funding, a project must be entered into the Watershed Projects Database. See pages 11-13 of the FY23 Clean Water Initiative Funding Policy.

Select the most representative project type (according to Appendix B Project Types Table of the 2023 CWIP Funding Policy) from the dropdown list below.*

Floodplain/Stream Restoration – Implementation

* If there is more than one project type associated with the proposal, enter additional project types in the Project Description section below.

Project Phase for which you are seeking funding: Implementation

Project GPS coordinates (e.g. 44.26278, -72.58054):
44.33039, -72.54759
Project Sub-basin: North Branch - Winooski River

3. Project Description

Describe the proposed project. Include the following: project history; the phosphorus reduction practices that will be developed, designed or implemented with the requested funds; ***details*** *of the project development activities, conceptual or final design plans and cost proposals (if available); and* ***references*** *to prior plans and studies that support the funding request. Propose a project schedule based on the milestones of the proposed project type. Assume a 7 May 2024 start date. (1000 words maximum)*

Project History

The Long Meadow Brook (LMB) Strategic Wood Addition (SWA) Project is a stream and floodplain restoration initiative managed by Friends of the Winooski River (FWR) in partnership with Redstart Natural Resource Management. The project area includes a reach of Long Meadow Brook (a tributary of the North Branch of the Winooski River) and three of its first-order tributaries, which have experienced substantial incision, erosion, and floodplain disconnection due to recent intense storm events.

The project was developed as part of the Natural Resources Conservation Services (NRCS) Regional Conservation Partnership Program (RCPP), completed for the landowner by Redstart. The RCPP awarded the landowner funding for forest trail improvements and strategic wood addition. The forest trail work was completed in 2023 and the landowner is under contract to complete the SWA work by the end of 2025. Design funding for the SWA was awarded on June 19, 2024 by the Basin 8 Clean Water Service Provider (CWSP). Field assessments and initial scoping were conducted on August 6, 2024. The final design report was completed by October 25, 2024. A resurvey in April 2025 confirmed a significant underestimation of potential floodplain reconnection area in the initial assessment, increasing the area by 77% over the original estimate. Reporting for the design was finished April 7, 2025.

Phosphorus Reduction

The primary phosphorus reduction mechanism is the reconnection of adjacent floodplains through the installation of large, in-stream wood structures. These structures are designed to:
- Increase floodplain access frequency (especially during 2- to 5-year flood events)
- Reduce stream velocity and erosive energy
- Induce sediment and organic debris retention
- Enhance nutrient processing via hyporheic exchange
- Improve aquatic habitat, especially for brook trout

Keith Fritschie, the Basin 8 Planner, along with members of the DEC Rivers Program worked closely with Redstart to develop more accurate phosphorus reduction calculations for this project type, which are now the standard statewide.

Project Details

The SWAs will be created by directionally felling 1–3 marginal-value riparian trees at intervals of approximately every 100–150 ft of stream run, cutting them to length, and anchoring them within the stream. This work follows the guidelines in the Vermont Strategic Wood Addition Handbook

4. Staff Capacity & Past Experience

A list of key staff and a (brief) description of their role in the project. If any of the staff listed here were not included in your organization's pre-qualification materials, please attach a one-page resume describing their qualifications to the project proposal.

Name	Project Role
Samuel Puddicombe	Project management
Michele Braun	Project oversight

Provide three examples of relevant past work. Include the Watershed Projects Database ID (if applicable), key staff and their role(s) in the project, a brief description of the project (phase, type, partners, etc.) and contact information for project references. Projects listed here should demonstrate the experience of the specific staff anticipated to work under this proposal.

Example Project 1:

Watershed Projects Database ID (if applicable):

Project staff & their project role(s):

Samuel Puddicombe - Project management

Project description (250 words max):

400 trees were planted and maintained along the Winooski River at Martin Covered Bridge Park to supplement a pre-existing buffer. These trees were used to fill in areas where tree survivorship was low or where trees were knocked over by the July 2023 flood. The project

Reference contact information:

Name: J. Bradley Materick
Affiliation: Marshfield Conservation Commission
Phone: 802-578-3050
Email: jbmaterick@gmail.com

Example Project 2:

Watershed Projects Database ID (if applicable):

Project staff & their project role(s):

Samuel Puddicombe - Project management

Project description (250 words max):

300 native trees and shrubs were planted and maintained along the Dog River on a private parcel upstream of Northfield village to expand the existing buffer by 30ft / 0.5 acres.

Reference contact information:

Name: Joe and Deborah Zuaro

Affiliation: Landowner
Phone: 802-356-0999
Email: freeheel@tds.net

Example Project 3:

Watershed Projects Database ID (if applicable):
Project staff & their project role(s):

Samuel Puddicombe - Project management

Project description (250 words max):

340 native trees and shrubs were planted and maintained along the North Branch River on a private parcel upstream of the Montpelier rec fields. An additional 130 stems and 100 willow stakes were planted in upland areas and along drainage ditches with NEWE

Reference contact information:

Name: Timo Bradley
Affiliation: Landowner
Phone: 802-552-3207
Email: Timo@timberhomesllc.com

5. Estimated annual total phosphorus load reduction (kg/yr)

Please review the Department of Environmental Conservation's Standard Operating Procedures (SOPs) for Tracking and Accounting of Phosphorous prior to completing this section.

For Developed Lands projects, estimate the annual phosphorous load reduction using the Department of Environmental Conservation's Stormwater Treatment Practice Calculator. Export the results from the calculator and include that information in the proposal package. For Natural Resource Restoration projects, estimate the annual phosphorous load reduction using the Department of Environmental Conservation's Interim Phosphorous Calculator Tool (v1.0). Save the results from the calculator and include them in the proposal package.

Enter the estimated annual total phosphorous load reduction (kg / yr):

1.75

If the proposed project consists of project identification / assessment or development-phase work, provide details regarding the types of projects you intend to investigate and the anticipated phosphorus reduction benefits you expect the project(s) might achieve.

6. Project Budget

Develop a detailed budget with a cost breakdown of all project and administrative expenses. The budget should be itemized by Task with anticipated costs for personnel, equipment, materials, subcontracted services and other costs as appropriate. Be sure to request sufficient funding to complete the required milestones and deliverables (including project reporting) for the type of project being proposed. See the FY23 Clean Water Initiative Program Funding Policy for more information on the milestones required for the project type you are proposing.

Notes:
Mileage: Use the FY24 federal rate ($0.67 / mile)
Indirect: If you have a negotiated indirect rate, please use that. Otherwise, you may charge up to 10% on all APPLICANT costs and 10% on the first $50,000 of SUBCONTRACTORS costs.

Funding request
Amount of funding requested: $16,499
State matching funds: $0
Non-State matching funds: $6,535.00
Total project budget: $23,688

Future costs
If this proposal seeks funds for Preliminary (30%) or Final (100%) Design-phase work, please estimate anticipated future costs for subsequent project phases. Do not include this amount in the "Funding request" section above.

Anticipated future funding: $0

7. Co-benefits

a) **ENVIRONMENTAL JUSTICE:** points are awarded when a project is located in a Census Block Group where one or more Environmental Justice Focus Population demographic conditions exist. *This value is calculated by the Clean Water Service Provider based on the project location.*

b) **ECOLOGICAL BENEFITS:** points are awarded when a project reduces sediment and / or non-phosphorous nutrient loads to stressed, altered, impaired or priority waterways to which it is hydrologically connected. *This value is calculated by the Clean Water Service Provider based on the project location.*

c) **ECOSYSTEM SERVICES:** points are awarded when a project moderates natural phenomena through carbon sequestration and flood resilience. *This value is calculated by the Clean Water Service Provider based on the type of project being proposed.*

d) **COMMUNITY BUILDING:** points are awarded when a project involves the community in data collection and decision-making, enhances the working landscape and provides recreational benefits. Please answer the following:

- Are there proposed efforts to meaningfully involve community members in planning, project development, decision-making and implementation?

  No

  If you answered Yes to the previous question, please describe the effort to involve community members:

- Does the project involve data collection by community members (e.g. citizen science initiative)? No

  If you answered Yes to the previous question, please describe the effort to involve community members in data collection:

- Is the project located on a parcel that is enrolled in the Use Value & Appraisal Program (aka the Current Use Program) (Contact the Clean Water Service Provider for assistance.)? Yes

- Does the project maintain / improve an existing recreational space?

  No

If you answered Yes to the previous question, please describe the maintenance or improvement of existing recreational space(s):

- Will the project result in new / expanded recreational opportunities?

No

If you answered Yes to the previous question, please describe the effort to create new or expand existing recreational opportunities:

e) **EDUCATION:** An Education Co-Benefit is realized when a project includes aspects of public outreach designed to educate community members about the importance of phosphorus reduction and watershed health

- Will the project include an educational component? No

If you answered Yes to the previous question, please describe the educational component of the project below:

- Interpretive signage:

- Educational meetings / workshops:

8. Other Considerations

a) **DESIGN LIFE:** The design life of the proposed project is: 10 years

b) **LANDOWNER RELATIONS**

- PROPERTY OWNERSHIP: The project will be located on:

  privately-owned property.

- LANDOWNER SUPPORT: Provide a list of landowner support letters below. Please submit any letters or email from the landowner indicating their support for the project and awareness of their required commitment. Note date of letter/email and sender below.

  Most recent landowner communication (Attached), Landowner RCPP Contract (Not Public)

- OTHER: Include other information regarding landowner relations here.

c) **OPERATIONS & MAINTENANCE**

- COST ESTIMATE: Provide a quantitative estimate of operation & maintenance costs on an annual basis where available. If not available, please provide a qualitative estimate. The anticipated annual operations & maintenance expenses for this project are:
  $175
- O & M AGREEMENT: There is a signed operations & maintenance agreement for this project: No

  If you answered Yes to the previous question, please include a copy of the signed O & M Agreement in the proposal package.

- OTHER: Include any other information regarding the operations & maintenance agreement for this project.

d) **PERMITTING:** This project will require a permit: Yes

If you answered Yes to the previous question, please provide a list of the required permits, any issues anticipated in obtaining the permits and the status of the permit. If you have permit(s) for the project in hand, please include a copy of them in the proposal package.

DHP (Attached), ACE (Attached)

e) **BARRIERS:** Describe any potential barriers to completing this project and how you plan to manage those challenges:

No barriers are expected in completing this project.

f) **HISTORIC SITE REVIEW:** Consult the Vermont Historic Sites spreadsheet and accompanying guidance in the State Historic Preservation Review section of the FY23 Clean Water Initiative Program Funding Policy to determine whether the proposed project will require Preliminary and Final Project Review by the Vermont Division of Historic Preservation. Include a copy of the completed Vermont Historic Preservation Project Review Form in the proposal package.

- The proposed project will require State Historic Preservation Review:

Yes

9. Proposal Submission

Assemble the following materials in the order listed into a single PDF and submit to Brian Voigt (voigt@cvregion.com) with the Subject line: "Winooski Basin Clean Water Service Provider Project Proposal – FY24, Round 4".

1. If your organization or municipality has not yet been pre-qualified as an eligible Basin 8 Clean Water Service Provider Clean Water Partner, please complete and submit a pre-qualification form along with your funding proposal.

2. Project proposal form (i.e. this document).

3. Include the following information in the order listed (please):
   a) Natural Resources Screening Form (see the FY23 Clean Water Initiative Program Funding Policy – Appendix A. Required for preliminary design, final design, or implementation phase projects.)
   b) Project Locator Map – applicants may use the Vermont Agency of Natural Resources Atlas to generate the Project Locator Map (Contact the Clean Water Service Provider for assistance.)
   c) Project Timeline – Propose a project schedule based on the milestones of the proposed project type. Assume a 2 July 2024 start date.
   d) Staff capacity – list key staff and their role(s) in the project. Attach one-page resumes for any staff listed in Section 4 of the Application Form who were not included in your pre-qualification materials.
   e) Completed DEC Interim Phosphorus Reduction Calculator Tool v1.0, or, for Developed Land Projects, report from DEC Stormwater Treatment Practice Calculator. (Contact the Clean Water Service Provider for assistance.)
   f) Detailed project budget with a cost breakdown of all project and administrative expenses. The project should be itemized by Task with anticipated costs for personnel, equipment, materials, subcontracted services and other costs as appropriate. Be sure to request sufficient funding to complete the required milestones and deliverables (including project reporting) for the type of project being proposed.
   g) Letter(s) of support from landowner(s) indicating their support for and awareness of the commitment required to advance / implement the project
   h) Signed Operations & Maintenance Agreement (if applicable)
   i) Permits – Attach approved project permits (if applicable).
   j) Historic Site Review - Use the spreadsheet and accompanying guidance in the State Historic Preservation Review section of the FY23 Clean Water Initiative Program Funding Policy to determine whether your clean water project will require Preliminary and Final Project Review by the Vermont Division of Historic Preservation. Attach a copy of the completed Vermont Historic Preservation Project Review Form.

APPENDIX A. CLEAN WATER INITIATIVE PROGRAM - PROJECT ELIGIBILITY SCREENING FORM

This fillable PDF form is designed to assist with project review by systematically walking through all eligibility criteria. It should be completed for all projects seeking funding for 30% + design or implementation work. It may be applied to projects seeking funding for assessment or development if helpful for determining their alignment with eligibility criteria 2, 3, 6, and 8.

Step 1: Conduct Eligibility Criteria #1 Screening: Project Purpose

Table 1A: Project Purpose	
From the drop-down list to the right, please select which of the four objectives of Vermont's Surface Water Management Strategy this project addresses. If multiple, please list below:	Minimize anthropogenic nutrient and organic pollution

Step 2: Conduct Eligibility Criteria #2 Screening: Project Types and Standards

Table 2A: Project Types and Standards	
Please select the most representative project type from the drop-down list to the right.[1,2] If multiple BMPs are included in the project, please list below:	Floodplain/Stream Restoration - Implementation
Is the project type an eligible project type for the funding program you are applying to as listed in column B of the CWIP Project Types Table? (Answer must be YES to proceed)	Yes ◉ No ○
Does the project meet the project type definitions and minimum standards as provided in column C of the CWIP Project Types Table? (Answer must be YES to proceed)	Yes ◉ No ○
Will the project result in the standard performance measures, milestones, and deliverables as defined by project type in columns D-F of the CWIP Project Types Table? (Answer must be YES to proceed)	Yes ◉ No ○
Is the project listed as an ineligible project or activity in the CWIP Funding Policy? If Yes, please explain below how project meets the allowable exceptions within the CWIP Funding Policy. (Answer must be NO to proceed, unless reasonable justification is provided above)	Yes ○ No ◉

Step 3: Conduct Eligibility Criteria #3 Screening: Watershed Projects Database

Verify project has been recorded in the Watershed Project Database (WPD). Each project must have a Watershed Project Database number specific to the proposed project phase (for example,

[1] Note that Road/Stormwater Gully project-types must not otherwise be considered intermittent or perennial streams by the DEC Rivers Program and therefore project proponent must show documentation of this determination in order to select this project type.

[2] One project may include multiple best management practices (BMPs) that cross "project types." For example, a single project may include both stormwater and lake shoreland BMPs. Proponents should use their best judgement in selecting the most representative project type for the purposes of eligibility screening and reporting.

a final design will have a different WPD-ID from a preliminary design even if for the same project). If the project, or the specific phase, is not yet in the Watershed Project Database, follow directions provided in the CWIP Funding Policy to secure a WPD-ID. Please see CWIP Funding Policy for more information on the WPD-ID.

Table 3A. WPD-ID	
Watershed Project Database ID number assigned	12351
Watershed Project Database Project Name	Long Meadow Brook Strategic Wood Addition - Implementation - East Montpelier

Step 4: Conduct Eligibility Criteria #4 Screening: Natural Resource Impacts[3]

Agency of Natural Resources (ANR) permit screening for natural resource impacts includes 1) an initial desktop review to identify which ANR permitting programs should be contacted, 2) a review by the relevant ANR permitting staff, and 3) a response summary from the project proponent addressing any permitting staff concerns. [4]

1) **Table 4. Natural Resource Impacts** facilitates a high-level desktop review of the most likely ANR permits to apply to clean water projects. Project proponents should answer all the questions to identify likely permit needs. [5] Please note that "project site" may include both the active restoration location as well as any additional impact footprint related to staging, site access, or storage of waste or disposed materials.
2) If responses to the **Table 4. Natural Resource Impacts** desktop review trigger a permitting staff consultation, **Table 4** provides appropriate contact information.
    a. Proponents should send the identified permitting staff the following:
        i. The watersheds project database identification number (WPD-ID) (if available),
        ii. Project location (GPS coordinates)
        iii. Summary of proposed scope of work, and
        iv. Any other relevant information they request that will be utilized in their review.
    b. **Proponents should clarify they are seeking permitting staff input on potential permitting needs, permit-ability of proposed scope of work, and other design considerations but they are NOT seeking a formal permit determination.**
    c. Project proponents must attempt to communicate with the permitting staff and provide them with at least thirty days to review the project and provide a

[3] Easements and Riparian Buffer Plantings are excluded from this eligibility requirement/step.

[4] In cases where this screening may have already occurred in a prior project phase, project proponents may supply attachments or links to relevant permit needs assessment documents in place of completing Table 4.

[5] Entities selected for funding are expected to perform due diligence to ensure all applicable permits (including non-ANR state, local, and federal permits) are discovered and secured prior to implementation. The ANR Permit Navigator and an Environmental Compliance Division Community Assistance Specialist can help confirm ANR permitting needs for any projects once selected for funding.

response. Project proponents are encouraged to perform this screening during a project development phase as opposed to during a project solicitation round to allow for more time for feedback. Permitting feedback may be up to one year old.

3) Proponents should summarize permitting staff feedback and how the proposed scope of work will address this at the bottom of **Table 4**. Specifically, please include:
   a. Which permits or permit amendment are needed or might be needed? [6]
   b. What type might be needed? (e.g., a general or individual permit[7])?
   c. What concerns were voiced by permitting staff?
   d. How will the proposed scope of work address these concerns?[8]

Table 4A: Natural Resource Impacts		
I. Act 250 Permits		
1. Have any Act 250 (Vermont's Land Use and Development Control Law) Permits been issued in the project site's parcel location?[9]	Yes ○	No ◉
If ***yes,*** please provide the permit number and list any water resource issues or natural resource issues found[10]: **PermitNumber:** **ResourceIssues:** _____ If ***yes,*** use the Water Quality Project Screening Tool to identify the appropriate regulatory contact for an Act 250 consultation. **Regulatory Point of Contact Name/Position:**		
II. Lake and Shoreland		
1. Is the project site located within 250 feet of the mean water	Yes ○	No ◉

[6] Occasionally permit staff may indicate they need a field visit or to see more completed designs prior to making a permit need determination.

[7] Design phase projects that require an individual wetlands permit must have the permit in hand at the close of the final design phase. Implementation phase projects must have the individual permit in hand to be eligible for funding.

[8] Examples could include planned design changes or inviting permitting staff to stakeholder meetings.

[9] An Act 250 Permit is required for certain categories of development, such as subdivisions of 10 lots or more, commercial projects on more than one acre or ten acres (depending on whether the town has permanent zoning and subdivision regulations), and any development above the elevation of 2,500 feet. The ANR Atlas Clean Water Initiative Program Grant Screening tool can help answer this yes/no question. Follow the instructions on the link above to identify whether your project is located on an Act 250 parcel. Note that the layer to activate in ANR Atlas is now named "Clean Water Initiative Program Grant Screening."

[10] Note that Act 250 permit amendments may require more extensive review of project impacts to natural resources including wildlife habitat, significant natural communities, and riparian zones. Please consult with the Act 250 District Coordinator regarding the nature and scope of that review and what bearing it may have on your project design.

level (shoreline) of a lake or pond? [11]	
If ***yes***, you might need either a Shoreland Protection Act Permit or a Lake Encroachment Permit. Use the Water Quality Project Screening Tool to find the Lakes and Ponds Program contact for your project's region. **Regulatory Point of Contact Name/Position:**	
III. Rivers, River Corridors, and Flood Hazard Areas	
1. Is there any portion of the project site located within 100' of a river corridor and/or mapped Federal Emergency Management Agency (FEMA) flood hazard area[12]**?** (e.g. a stormwater pond's pipe draining into a river corridor area)? Any permanent excavation/filling or construction within a flood hazard area or river corridor may trigger regulatory requirements through municipal bylaws or through state authorities.	Yes ◉ No ○
If ***yes***, you will need to speak with a Floodplain Manager. Use the Water Quality Project Screening Tool to find the Floodplain Manager for your project's region. **Regulatory Point of Contact Name/Position:** Ned Swanberg / Floodplain Manager	
2. Is any portion of the project site within a perennial river or stream channel? [13]	Yes ◉ No ○
If ***yes***, you will need to speak with a Stream Alteration Engineer. Use the Water Quality Project Screening Tool to find the Stream Alteration Engineer for your project's region. **Regulatory Point of Contact Name/Position:** Jaron Borg / Stream Alteration Engineer	
IV. Wetland	

[11] The ANR Atlas Clean Water Initiative Program Grant Screening tool can help answer this yes/no question. Follow the instructions on the link above to identify whether your project is located in the jurisdictional zone to trigger a Lakeshore permit. Note that the layer to activate in ANR Atlas is now named "Clean Water Initiative Program Grant Screening."

[12] FEMA mapped Flood Hazard Areas are not available statewide on the ANR Natural Resources Atlas. For projects located in Grand Isle, Franklin, Lamoille, Addison, Essex, Orleans, Caledonia, and Orange Counties, maps are available via the FEMA Flood Map Service Center: https://msc.fema.gov/portal/home. ANR Floodplain Managers are available to provide technical assistance if needed.

[13] Stream Alteration Permits regulate all activities that take place within perennial river and stream channels. Examples of regulated activities include streambank stabilization, dam removal, road improvements that encroach on streams, and bridge/culvert construction or repair. The ANR Atlas Clean Water Initiative Program Grant Screening tool can help answer this yes/no question. Follow the instructions on the link above to identify whether your project is located in the jurisdictional zone to trigger a Stream Alteration permit. Note that the layer to activate in ANR Atlas is now named "Clean Water Initiative Program Grant Screening."

1. Does the Wetland Screening Tool[14] provide a result of wetlands likely, very likely, or present at the project site?	Yes ◉ No ○
2. Does your project site involve land that is in or near an area that has any of the following characteristics: o Water is present – ponds, streams, springs, seeps, water filled depressions, soggy ground under foot, trees with shallow roots or water marks? o Wetland plants, such as cattails, ferns, sphagnum moss, willows, red maple, trees with roots growing along the ground surface, swollen trunk bases, or flat root bases when tipped over? o Wetland Soils – soil is dark over gray, gray/blue/green? Is there presence of rusty/red/dark streaks? Soil smells like rotten eggs, feels greasy, mushy or wet? Water fills holes within a few minutes of digging? (See Landowners Guide to Wetlands for additional information on identifying wetlands onsite.)	Yes ◉ No ○ Not Sure ○

If you answered ***yes*** or ***not sure*** to either of the above questions, you will need to contact your District Wetlands Ecologist using the Wetland Inquiry Form. The District Wetlands Ecologist can help determine the approximate locations of wetlands and whether you need to hire a Wetland Consultant to conduct a wetland delineation. Alternatively, if you answered ***yes*** or ***not sure*** to either of the above questions, you can simply budget for a Wetland Consultant in the proposed scope of work. Any activity within a Class I or II wetland or wetland buffer zone (minimum of 100 feet and 50 feet respectively) which is not exempt or considered an "allowed use" under the Vermont Wetland Rules requires a permit. All permits must go through review and public notice process, which takes at minimum 6 weeks for a General Permit and 5 months for an Individual Permit.

Regulatory Point of Contact Name/Position:

Shannon Morrison/ District Wetlands Ecologist

1. Is your project a Wetland Restoration project type?	Yes ○ No ◉

If you answered yes, under the Vermont Wetland Rules you will need an "allowed use" determination from the DEC Wetlands Program. Contact your District Wetlands Ecologist using the Wetland Inquiry Form.

Regulatory Point of Contact Name/Position:

V. Fish and Wildlife

State law protects endangered and threatened species. No person may take or possess such species without a Threatened & Endangered Species Takings permit. 1. **Does your project involve cutting down trees larger than 5 inches in diameter in any of the following towns?** Addison, Arlington, Benson, Brandon, Bridport, Bristol, Charlotte, Cornwall, Danby, Dorset, Fair Haven, Ferrisburgh, Hinesburg, Manchester, Middlebury, Monkton, New Haven, Orwell, Panton, Pawlet, Pittsford, Rupert, Salisbury, Sandgate, Shoreham, Starksboro, St. George, Sudbury, Sunderland, Vergennes, Waltham, West Haven, Weybridge, Whiting	Yes ○ No ◉

[14] To view the Wetland Screening Tool introduction video, see https://youtu.be/6lv5en0AB1o

2. Is the project site within 1 mile of a mapped[15] Significant Natural Community or Rare, Threatened, or Endangered Species?	Yes ◉ No ○
If ***yes*** to either of the above questions, connect with the VT Fish and Wildlife department (everett.marshall@vermont.gov 802-371-7333) to discuss your project and any necessary permitting. **Regulatory Point of Contact Name/Position:**	
VI. Stormwater	
1. Will the project disturb more than an acre of land during construction, add or redevelop impervious surface, create new development or otherwise require a Stormwater permit?	Yes ○ No ○
If ***yes***, forward to the appropriate Stormwater specialist to ensure necessary permitting. Use the Water Quality Project Screening Tool to find the Stormwater specialist for your project's region. **Regulatory Point of Contact Name/Position:** Everett Marshall/ Natural Heritage Information Manager	
VII. Solid Waste	
2. Will you be creating any debris (including construction and demolition waste, stumps, brush, untreated wood, concrete, masonry, and mortar) with your project that you intend to bury on site? [16]	Yes ○ No ◉
If yes, connect with the Waste Management & Prevention Division (dennis.fekert@vermont.gov 802-522-0195) to discuss your project and any necessary permitting. **Regulatory Point of Contact Name/Position:**	
Provide below or attach a narrative summary of Table 4 findings. Please include: a. Which permits or permit amendment are needed or might be needed? b. What type might be needed? (e.g. a general or individual permit)? c. What concerns were voiced by permitting staff? d. How will the proposed scope of work address these concerns?	
Is the project, as proposed, reasonably considered permit-able by all applicable	Yes ◉ No ○

[15] Find both of these layers on the ANR Atlas under Atlas Layers/Fish and Wildlife. Use the Measurement tool to 1) Plot Coordinates for your project 2) select the coordinates from the left panel 3) select the Radius Tool 4) click on your project location 5) Indicate 1 mile distance 6) look for overlap with either of these mapped layers.

[16] If your project will result in the transfer and disposal of debris (including construction and demolition waste, stumps, brush, untreated wood, concrete, masonry and mortar), you do not need a permit from this office as long as you hire a licensed solid waste hauler and bring the material to a certified facility.

ANR permitting programs? (Answer must be Yes to continue)	

Step 5: Conduct Eligibility Criteria #5-8 Screenings

Table 5A. Eligibility Criteria 5-8	
Landowner and Operation and Maintenance Responsible Party Support. Project identifies and demonstrates commitment from a qualified and willing operation and maintenance responsible party. Project demonstrates landowner support for the proposed project phase. (Answer must be YES to proceed)	Yes ◉ No ○
Budget. Project budget includes ineligible expenses. (Answer must be NO to proceed)	Yes ○ No ◉
Leveraging. Proposed leveraging meets required leveraging levels (if applicable), meets the definition of leveraging, and comes from eligible sources (Answer must be YES or N/A to proceed)	Yes ○ No ◉ N/A ○
Funding Program Specific Eligibility. Project meets additional funding program eligibility requirements*. Please list applicable funding program below: (Answer must be YES to proceed) *If Water Quality Restoration Formula Grant, complete Step 6 below	Yes ◉ No ○

Step 6: Screening Projects on Agricultural Lands (Water Quality Restoration Formula Grants Only)

For Water Quality Restoration Formula Grant projects, please complete the following information as part of your Funding Program Specific Eligibility Screening (Criteria 8). Please note this must be completed for all projects located on agricultural lands regardless of project type. See CWIP Project Types Table for eligible project types.

Table 6A. Screening Projects on Agricultural Lands	
1. Is the proposed project located on a jurisdictional farm operation[17]? Complete a preliminary review to	○ **Yes** - Proceed to next question below.

[17] Jurisdictional farm operations are required to meet Vermont's Required Agricultural Practices (RAPs).

determine if it is a jurisdictional farm operation, and any case that requires consultation with AAFM will occur via the farm determination process. Please note this form must be submitted by the farm operation/landowner seeking the determination.	◉ **No**[18] - There is no additional requirements related to agricultural review for these projects.
2. Is the proposed project an agricultural project? Examples of agricultural projects include but are not limited to Production Area Practices – (e.g. Waste Storage Facilities, Heavy Use Area, Diversion) Fence, Livestock Exclusion, Filter Strip, Cover Crop, Reduced Tillage, Manure Injection, Rotational Grazing. Please note this is not an exhaustive list of all agricultural practices.	○ **Yes** - Agricultural Projects on jurisdictional farms are not an eligible project type. You can provide a referral to an applicable state or federal agricultural assistance program, or a local organization. ○ **No** - The natural resource, innovative, or other project type will require an agricultural project review and approval from the Vermont Agency of Agriculture, Food and Markets (VAAFM) to ensure a consistent approach on farms statewide that follows rules, regulations, and laws in place. Please follow Steps 1 & 2 below. **Step 1** - Please submit a detailed description of the project, project site, project details, landowner, farm operation, and any other relevant information to VAAFM at AGR.WaterQuality@Vermont.gov . **Step 2** - Once you complete this Agricultural Project Review, please allow 30 days for a response. Once that response has been received, please include a summary of the response in the next section.

Agricultural Project Review Status & Summary:	
Check as Applicable	**Status**
☐	Submitted/ Pending
☐	Approved
☐	Denied

[18] Note CWIP's Agricultural Pollution Prevention project type eligibility is limited to land where owner or operator is not a jurisdictional farm (i.e., not required to meet the Required Agricultural Practices (RAPs)). As such, projects that meet the definition of the Agricultural Pollution Prevention project type in the Appendix B. Project Types Table are not subject to review by VAAFM.

Please include a summary of the response here:

Please note that it is expected that all projects with the status "submitted/pending" will be "approved" prior to a project approval for funding.

Natural Resource Screening Guidance

Samuel Puddicombe <samuel@winooskiriver.org>

#2025-0251, Long Meadow Brook SWA

Morrison, Shannon <Shannon.Morrison@vermont.gov> Wed, Apr 9, 2025 at 9:52 AM
To: Samuel Puddicombe <samuel@winooskiriver.org>

I have assigned a project number for this request – #2025-0251Please be sure to include this number in the subject heading for any future correspondence.

Thank you for submitting your plan for stream restoration using Strategic Woody Additions. The Vermont Wetlands program approves of this activity under Section 6.23 of the Vermont Wetland Rules as long as

1. There are no proposed fill roads, or tree cutting for access of machinery in Class II wetland or buffer zones.
2. Ther is no cutting of S1, S2 or S3 plants, which would be: Black Maple, Butternut, Chestnut, Pignut Hickory, Black Gum, Tulip Tree, Jack Pine, Scarlet Oak, Dwarf Chestnut Oak, Yellow Oak, Wild Plum, American Hazelnut, or the Hawthorns and Willows listed by Vermont Fish and Wildlife: https://vtfishandwildlife.com/sites/fishandwildlife/files/documents/Learn%20More/Library/REPORTS%20AND%20DOCUMENTS/NONGAME%20AND%20NATURAL%20HERITAGE/ENDANGERED%2C%20THREATENED%20AND%20RARE%20SPECIES%20LISTS/Rare-and-Uncommon-Native-Vascular-Plants-of-Vermont.pdf

VERMONT

Shannon Morrison | District Wetlands Ecologist

Vermont Agency of Natural Resources

Watershed Management Division, Wetlands Program

Davis 3, 1 National Life Dr | Montpelier, VT 05620-3901

802-490-6178 (office)

https://dec.vermont.gov/watershed/wetlands

Flood Recovery Resources: https://anr.vermont.gov/flood#wwtf

From: Samuel Puddicombe <samuel@winooskiriver.org>
Sent: Tuesday, April 8, 2025 11:05 AM
To: Morrison, Shannon <Shannon.Morrison@vermont.gov>
Subject: Re: East Montpelier Wetland Inquiry Form Submittal |

EXTERNAL SENDER: Do not open attachments or click on links unless you recognize and trust the sender.

Hi Shannon,

Yes, I did. I believe Redstart was under the impression that SWA projects were exempt from wetland permits based upon this conversation. I thought it would be good to show you this email chain to see if you agreed with Rebecca's guidance.

I sent you another Redstart SWA project to review the other week for a tributary of Mollys Brook. We have two more SWA projects that we will be applying for implementation funding over the next year. It would be good to know your opinions on this practice as we begin to move more of these projects forward.

Best,

Sam

On Tue, Apr 8, 2025 at 10:53 AM Morrison, Shannon <Shannon.Morrison@vermont.gov> wrote:

> Did you mean to send me a correspondence with Rebecca Chalmers?

From: Samuel Puddicombe <samuel@winooskiriver.org>
Sent: Tuesday, April 8, 2025 10:35 AM
To: samuel@winooskiriver.org
Cc: Morrison, Shannon <Shannon.Morrison@vermont.gov>
Subject: Re: East Montpelier Wetland Inquiry Form Submittal |

EXTERNAL SENDER: Do not open attachments or click on links unless you recognize and trust the sender.

Hi Shannon,

Attached are the supplemental documents referenced in the form above.

Thank you!

Sam

LMB Final Design Report (merged and compressed).pdf

On Tue, Apr 8, 2025 at 10:31 AM Lapierre, Laura <Laura.Lapierre@vermont.gov> wrote:

> **Request**
>
> **Request:** 4. Pre-Application Project Review (you know your project involves a wetland and have a project design planned.)
>
> **Request Detail:** Pre-application project review for implenting a strategic woody addtion project along long meadow brook.
> **Basic Project Purpose** (if any): This is a stream restoration project that will utilize strategic woody additions to reduce incision of long meadow brook, allowing it to regain access to its floodplain and reduce phosphorus loading into the Winooski river.
> **Inquiry Type**: Project/parcel review (desktop)
> **Additional Notes:** In a followup email I will send the final design report for the SWA along with previous wetland guidance for SWA projects.
> **Are there Site Plans to submit?:** Yes (if yes, the submitter will send you a seperate email with attachments)
>
> **Location**
>
> **Project Town:** East Montpelier
> **Location** (address, SPAN, x,y)**:** 44.33039, -72.54759
> **Description of Area to Review:** Along long meadow brook and its tributaries that fall on the property
> **Project Number:**
> **Site Visit Logistics**
>
> **Best Place to Meet:**

Potential Site Hazards:
Time for Visit:
Additional Details

Does Inquirer Know if there is a Wetland on the Property:
Additional Site Info: ["The wetland is over a half acre in size.","The wetland is adjacent to a stream, river or open body of water."]

The requestor understands that by requesting pre-application review they are only providing the Wetlands Program with a subset of information necessary to decide on permitting outcomes. Any additional information provided in a permit application or changes to the project design may lead to a different outcome:
I understand
Contact Information

Inquirer: Samuel Puddicombe
Role: Consultant/Representative
Inquirer Email on Form: samuel@winooskiriver.org; samuel@winooskiriver.org
Samuel Puddicombe **Phone Number:** 8026969949
Samuel Puddicombe Mailing Address: PO Box 777, Montpelier
Landowner Name (if inquirer is not landowner): KOSS RONALD & CLAGHORN CARLY
Landowner Email:
Landowner Phone Number:
Landowner Mailing Address: 201 TAYLOR RD, Montpelier VT, 05602
MLS#:

Is this an ARPA project? No

END FORM

--

Samuel Puddicombe (he/him)

Project Manager

802-696-9949

Friends of the Winooski River

PO Box 777, Montpelier, VT 05601

--

Samuel Puddicombe (he/him)

Project Manager

802-696-9949

Friends of the Winooski River

PO Box 777, Montpelier, VT 05601

Samuel Puddicombe <samuel@winooskiriver.org>

SWA Stream Alt Guidance

Borg, Jaron <Jaron.Borg@vermont.gov> Tue, Apr 8, 2025 at 11:55 AM
To: Samuel Puddicombe <samuel@winooskiriver.org>

Samuel,

This is generally inline with the General Permit, C.2.1.5. Please note work on stream segments with a bankfull width of greater than 20-ft remain jurisdictional regardless of meeting the remaining criteria.

https://dec.vermont.gov/sites/dec/files/wsm/rivers/docs/StreamAlterationGeneralPermit_2022-04-19.pdf

Sincerely,

Jaron Borg | River Management Engineer

Vermont Agency of Natural Resources | Watershed Management Division

1 National Life Drive, Davis 3, Montpelier VT 05620-3901

(802) 371-8342 | Jaron.Borg@vermont.gov

From: Samuel Puddicombe <samuel@winooskiriver.org>
Sent: Tuesday, April 8, 2025 11:22 AM

To: Borg, Jaron <Jaron.Borg@vermont.gov>
Subject: SWA Stream Alt Guidance

EXTERNAL SENDER: Do not open attachments or click on links unless you recognize and trust the sender.

Hi Jaron,

FWR is looking to implement several SWA projects around the Winooski Basin

We are working with Redstart who has been working off the following guidance from Ben Mathews.

- "SWA projects with less than 10 cubic yards of fill per 200 linear ft of fill are eligible for non-reporting category of Stream Alt General permit.
    - Work must follow guidelines of VT SWA Handbook. Work must be approved by F&W.
    - This permit specifies no cutting outside of July 1st - October 1st. This requirement can be waived with written approval from F&W.
    - All work must occur 300 ft or more upstream from infrastructure.
    - If qualification for non-reporting permit is certain, do not ask river engineers for approval. Notify them of non-reporting/exempt work once committed as a courtesy."

Does this guidance seem correct to you? If so we will notify you of non-reporting/exempt work once committed.

Thank you,

Sam

--

Samuel Puddicombe (he/him)

Project Manager

802-696-9949

[Quoted text hidden]

Long Meadow Brook SWA_Locator Map

Vermont Agency of Natural Resources

vermont.gov

LEGEND

- Parcels (standardized)
- Stream
  - Stream
  - Intermittent Stream
- Roads
  - Interstate
  - US Highway; 1
  - State Highway
  - Town Highway (Class 1)
  - Town Highway (Class 2,3)
  - Town Highway (Class 4)
  - State Forest Trail
  - National Forest Trail
  - Legal Trail
  - Private Road/Driveway
  - Proposed Roads
- Town Boundary

NOTES

Map created using ANR's Natural Resources Atlas

322.0 0 161.00 322.0 Meters

WGS_1984_Web_Mercator_Auxiliary_Sphere 1" = 528 Ft. 1cm = 63 Meters

THIS MAP IS NOT TO BE USED FOR NAVIGATION

Project Timeline

	Milestone	***Deliverable(s)***	***Completion Date***	***Cost***
1	Project initiated; proposal / bid solicitation issued, and contractor selected (if applicable)	Copy of proposal solicitation & contractor selected (if applicable)	7/1/25	500
2	10-year minimum DEC Operation & Maintenance Plan drafted and signed	Signed 10-year (minimum) DEC Operation & Maintenance Plan	10/1/25	1000
3	10-year minimum access license or easement drafted and signed	Signed 10-year (minimum) access license or agreement	10/1/25	1000
4	Required Permits Secured	Permit documentation (if applicable)	10/1/25	1000
5	Pre-construction kick-off meeting, walk through of the site with plans, evaluate and needs/issues/considerations for plan adjustments		11/1/25	1000
6	Clean Water Project sign installed during construction if the project is considered publicly visible	Photo(s) of site(s) post-implementation; Photo of Clean Water Sign (if applicable)	11/25/25	0
7	Floodplain/Stream restoration projects(s) implemented, final construction walkthrough	As-built drawings or red-lined 100%	1/15/26	10999
8	Other Permit-required activities completed or elements installed (if applicable, VDHP Treatment Plan implementation (if applicable)		1/15/26	0
9	Return of Clean Water Project Sign to host site (if applicable)		1/15/26	0
10	Project closeout	Media announcement; Return of Clean Water Project sign to host site (if applicable); Final Performance Report / ANR Project Closeout Form	1/15/26	1000
			Total Cost	**$16,499**

DEC Interim Phosphorus Reduction Calculator Tool v.10

Strategic Wood Addition on Perennial Streams

Please consult SWA Crediting Guidance	Calculations completed through the use of this tool should **only be applied in perennial stream settings**. Calculations for estimating phosphrous reductions associated with SWA on intermittent streams are not currently available. The steps for estimating the phosphorus reduction benefit of an SWA project include first estimating the acres of enhanced floodplain connection and anticpated chnage in incision ratio, then multiplying by watershed-specific FFI metrics for separate floodplain storage and stream stability credits per reconnected acre, and lastly summing the two credit types. Final design and as-built project phase calculations should be completed for each distinct floodplain pocket as a unique row below, and these rows can be summed to a project total using the summary table with green headers (right). For preliminary designs row information can be completed at the reach level, with total floodplain acreage and representative bankfull and floodplain height information summarized within continuous reaches with similar geomorphic characteristics (e.g., width, slope, bed material). Not all sites are suitable for SWA or eligible for phosphorus reduction calculations, see the linked SWA crediting guidance (left) for more information.															
							calculate project total here ->		**Project Identifier**		**Project Total Reconnected Floodplain Acres**	**Annual Stream Stability P Reduction (kg/yr)**	**Annual Storage P Reduction (kg/yr)**	**Year 1 Additional Storage P reduction (kg)**	**Estimated Project Total Annual P Reduction (kg/yr)**
									Long Meadow Brook Ceiling		0.575	0.889	1.391	1.391	2.281
To add a new project calculation, enter new a project identifier in the row directly below the last row of data. The preset functions will automatically populate in the new row. If calculating for more than one floodplain pocket (final/as-built designs) or stream reach (preliminary design) within a single project, use one row for each	To determine HUC12 - visit the ANR Atlas (click here), turn on 'ANR Basemap Data', 'Watershed Boundary Dataset (WBD)', and 'Subwatershed (HUC12)' layers, enter the project lat/lon in the search bar, and click on the search result to zoom	Desktop-based or field-based floodplain acreage estimate, restricting extent of estimated floodplain to the river corridor as described in the SWA	Floodplain storage credit can include reconnected floodplain area outside of the mapped river corridor, if applicable. This area is credited at 50%.	See SWA Crediting Guidance	See SWA Crediting Guidance	Calculated based on bankfull height and floodplain height	Potential Achievable IR assuming 0.5ft aggradation in channel behind structure. With additional data this 0.5ft assumption may be subject to change in	hide?	Credit multiplier is determined based on HUC12 project location	hide?	Universal storage credit for 'Moderate' to 'High' vertical reconnection, used for all projects and taken from the 2023 FFI Manual Table 5-2 Page 53	Stream stability credit is dependent on achieving an adequate change in incision ratio, which is not possible in all context		Additional storage in year one is credited towards the project but not recommended for use in assessing cost effectiveness	

pocket and use a single project identifier for all rows, then enter the same project identifier in cell J5 to calculate the estimated phosphorus reduction for the full project.	to the project location. HUC12 name and number will display in green outlined text.	Crediting Guidance (Step 1)					future iterations of this guidance. See SWA Crediting Guidance for more information.					s. See SWA crediting guidance for more information.			
*Input**	*Dropdown**	*Input Value**	*Input Value**	*Input Value**	*Input Value**	*Output value*	*Output value*	*Output value*	*Output value*		*Output value*	*Output value*	*Output value*	*Output value*	***Output value***
Project Identifier	Project Location HUC12	Estimated Reconnected Floodplain Area within the River Corridor (acres)	Estimated Reconnecte Floodplain Area outside the River Corridor (acres)	Estimated Bankfull Height (ft)	Estimated Floodplain Height (ft)	Existing Incision Ratio	Proposed Post-Implementation Incision Ratio	stability credit yes/no	Stability Credit Multiplier (kg/acre/year)	Stability Credit Proration	Storage Credit Multiplier (kg/acre/yr)	Annual Stream Stability P Reduction (kg/yr)	Annual Storage P Reduction (kg/yr)	Year 1 Additional Storage P reduction (kg)	Estimated Annual P Reduction (kg/yr)
Long Meadow Brook Floor	043001030302 - North Branch Winooski River	0.0304	0.000	0.5	0.5	1.000	1.000	1.000	2.052	0.000	2.300	0.000	0.070	0.070	0.070
Long Meadow Brook Floor	043001030302 - North Branch Winooski River	0.0327	0.000	0.8	1.5	1.900	1.200	1.000	2.052	0.778	2.300	0.052	0.075	0.075	0.127
Long Meadow Brook Floor	043001030302 - North Branch Winooski River	0.0147	0.000	1.0	1.3	1.300	1.000	1.000	2.052	1.000	2.300	0.030	0.034	0.034	0.064

Long Meadow Brook Floor	043001030302 - North Branch Winooski River	0.0342	0.000	1.3	1.6	1.200	1.000	1.000	2.052	1.000	2.300	0.070	0.079	0.079	0.149
Long Meadow Brook Floor	043001030302 - North Branch Winooski River	0.0091	0.000	1.5	2.6	1.700	1.300	1.000	2.052	0.571	2.300	0.011	0.021	0.021	0.032
Long Meadow Brook Floor	043001030302 - North Branch Winooski River	0.0298	0.000	1.6	2.5	1.600	1.200	1.000	2.052	0.667	2.300	0.041	0.069	0.069	0.109
Long Meadow Brook Floor	043001030302 - North Branch Winooski River	0.0374	0.000	2.0	3.0	1.500	1.200	1.000	2.052	0.600	2.300	0.046	0.086	0.086	0.132
Long Meadow Brook Floor	043001030302 - North Branch Winooski River	0.0085	0.000	1.0	1.2	1.200	1.000	1.000	2.052	1.000	2.300	0.017	0.020	0.020	0.037
Long Meadow Brook Floor	043001030302 - North Branch Winooski River	0.0106	0.000	0.8	1.2	1.500	1.000	1.000	2.052	1.000	2.300	0.022	0.024	0.024	0.046
Long Meadow Brook Floor	043001030302 - North Branch Winooski River	0.0049	0.000	0.8	1.2	1.500	1.000	1.000	2.052	1.000	2.300	0.010	0.011	0.011	0.021
Long Meadow Brook Floor	043001030302 - North Branch	0.0319	0.000	0.8	0.8	1.000	1.000	1.000	2.052	0.000	2.300	0.000	0.073	0.073	0.073

	Winooski River														
Long Meadow Brook Floor	043001030302 - North Branch Winooski River	0.017	0.0600	0.8	0.8	1.000	1.000	1.000	2.052	0.000	2.300	0.000	0.108	0.108	0.108
Long Meadow Brook Floor	043001030302 - North Branch Winooski River	0.0110	0.000	0.6	1.7	2.800	1.500	0.000	2.052	0.722	2.300	0.000	0.025	0.025	0.025
Long Meadow Brook Floor	043001030302 - North Branch Winooski River	0.0045	0.000	0.6	1.7	2.800	1.500	0.000	2.052	0.722	2.300	0.000	0.010	0.010	0.010
Long Meadow Brook Floor	043001030302 - North Branch Winooski River	0.0021	0.000	1.0	2.0	2.000	1.300	1.000	2.052	0.700	2.300	0.003	0.005	0.005	0.008
Long Meadow Brook Floor	043001030302 - North Branch Winooski River	0.0348	0.000	0.8	1.3	1.600	1.000	1.000	2.052	1.000	2.300	0.071	0.080	0.080	0.151
Long Meadow Brook Floor	043001030302 - North Branch Winooski River	0.0111	0.000	0.7	1.2	1.700	1.000	1.000	2.052	1.000	2.300	0.023	0.026	0.026	0.048
Long Meadow Brook Ceiling	043001030302 - North Branch	0.0304	0.000	0.5	0.5	1.000	1.000	1.000	2.052	0.000	2.300	0.000	0.070	0.070	0.070

	Winooski River														
Long Meadow Brook Ceiling	043001030302 - North Branch Winooski River	0.0327	0.000	0.8	1.5	1.900	1.200	1.000	2.052	0.778	2.300	0.052	0.075	0.075	0.127
Long Meadow Brook Ceiling	043001030302 - North Branch Winooski River	0.0147	0.000	1.0	1.3	1.300	1.000	1.000	2.052	1.000	2.300	0.030	0.034	0.034	0.064
Long Meadow Brook Ceiling	043001030302 - North Branch Winooski River	0.0342	0.000	1.3	1.6	1.200	1.000	1.000	2.052	1.000	2.300	0.070	0.079	0.079	0.149
Long Meadow Brook Ceiling	043001030302 - North Branch Winooski River	0.0862	0.000	0.9	1.2	1.400	1.000	1.000	2.052	1.000	2.300	0.177	0.198	0.198	0.375
Long Meadow Brook Ceiling	043001030302 - North Branch Winooski River	0.0091	0.000	1.5	2.6	1.700	1.300	1.000	2.052	0.571	2.300	0.011	0.021	0.021	0.032
Long Meadow Brook Ceiling	043001030302 - North Branch Winooski River	0.0298	0.000	1.6	2.5	1.600	1.200	1.000	2.052	0.667	2.300	0.041	0.069	0.069	0.109
Long Meadow Brook Ceiling	043001030302 - North Branch Winooski River	0.0374	0.000	2.0	3.0	1.500	1.200	1.000	2.052	0.600	2.300	0.046	0.086	0.086	0.132

Long Meadow Brook Ceiling	043001030302 - North Branch Winooski River	0.0044	0.000	1.3	1.8	1.400	1.000	1.000	2.052	1.000	2.300	0.009	0.010	0.010	0.019
Long Meadow Brook Ceiling	043001030302 - North Branch Winooski River	0.0383	0.000	0.9	1.1	1.200	1.000	1.000	2.052	1.000	2.300	0.079	0.088	0.088	0.167
Long Meadow Brook Ceiling	043001030302 - North Branch Winooski River	0.0160	0.000	1.2	1.9	1.600	1.100	1.000	2.052	0.833	2.300	0.027	0.037	0.037	0.064
Long Meadow Brook Ceiling	043001030302 - North Branch Winooski River	0.0085	0.000	1.0	1.2	1.200	1.000	1.000	2.052	1.000	2.300	0.017	0.020	0.020	0.037
Long Meadow Brook Ceiling	043001030302 - North Branch Winooski River	0.0106	0.000	0.8	1.2	1.500	1.000	1.000	2.052	1.000	2.300	0.022	0.024	0.024	0.046
Long Meadow Brook Ceiling	043001030302 - North Branch Winooski River	0.0049	0.000	0.8	1.2	1.500	1.000	1.000	2.052	1.000	2.300	0.010	0.011	0.011	0.021
Long Meadow Brook Ceiling	043001030302 - North Branch Winooski River	0.0319	0.000	0.8	0.8	1.000	1.000	1.000	2.052	0.000	2.300	0.000	0.073	0.073	0.073
Long Meadow Brook Ceiling	043001030302 - North Branch	0.017	0.0600	0.8	0.8	1.000	1.000	1.000	2.052	0.000	2.300	0.000	0.108	0.108	0.108

	Winooski River														
Long Meadow Brook Ceiling	043001030302 - North Branch Winooski River	0.0110	0.000	0.6	1.7	2.800	1.500	0.000	2.052	0.722	2.300	0.000	0.025	0.025	0.025
Long Meadow Brook Ceiling	043001030302 - North Branch Winooski River	0.0045	0.000	0.6	1.7	2.800	1.500	0.000	2.052	0.722	2.300	0.000	0.010	0.010	0.010
Long Meadow Brook Ceiling	043001030302 - North Branch Winooski River	0.0680	0.000	0.8	1.2	1.600	1.000	1.000	2.052	1.000	2.300	0.140	0.157	0.157	0.296
Long Meadow Brook Ceiling	043001030302 - North Branch Winooski River	0.0021	0.000	1.000	2.000	2.000	1.300	1.000	2.052	0.700	2.300	0.003	0.005	0.005	0.008
Long Meadow Brook Ceiling	043001030302 - North Branch Winooski River	0.0348	0.000	0.800	1.300	1.600	1.000	1.000	2.052	1.000	2.300	0.071	0.080	0.080	0.151
Long Meadow Brook Ceiling	043001030302 - North Branch Winooski River	0.0284	0.000	0.900	1.650	1.800	1.200	1.000	2.052	0.750	2.300	0.044	0.065	0.065	0.109
Long Meadow Brook Ceiling	043001030302 - North Branch Winooski River	0.011	0.000	0.700	1.200	1.700	1.000	1.000	2.052	1.000	2.300	0.023	0.026	0.026	0.048
Long Meadow Brook Ceiling	043001030302 - North	0.009	0.000	0.700	1.200	1.700	1.000	1.000	2.052	1.000	2.300	0.018	0.020	0.020	0.037

	Branch Winooski River															

Cost Effectiveness Calculator for Formula Grant Project Prioritization		Notes				
Cost effectiveness of a project with a design life 15 years or greater: Cost effectiveness ($/kg/yr) = total capital project cost (dollars) for design and construction / annual average phosphorus load reduction (kg/yr) **Cost effectiveness for a project with less than 15-year design life:** Cost effectiveness ($/kg/yr) = (15 years/design life years)*(Total Project Cost $) /Average annual P load reduction		The calculation of cost effectiveness used in this tool is intended to be used to inform project prioritization for projects proposed to be funded under Formula Grants. The cost effectiveness calculation in this tool considers the project lifespan in the context of the 15-year Formula Grant implemnetation timeframe and utilizes the cost effectiveness formula presented in Chapter 6 of Act 76 Guidance. The cost effectiveness equation used in this tool is subject to revision following conclusion of the public notice period for Chapter 6 of the Act 76 Guidance Document. Cost effectiveness metrics presented elsewhere, such as in the Vermont Clean Water Initiative Performance Report, may use a different equation to calculate cost effectiveness. For more information on Act 76 and Guidance, please visit https://dec.vermont.gov/water-investment/statues-rules-policies/act-76				
Enter the project ID exactly entered in the phosphorus calculator tab to autofill calculated estimated P load reduction.			It is recommended that cost effectiveness is calculated with and without inclusion of any anticipated match or leveraged funds, if applicable.	*Optional* if different than total project costs. Consider Chapter 6 Guidance on co-funded projects and proportional credit for co-funders that are reporting partners.	Value will autofill based on project ID. If project type is a stormwater treatment practice, calculated estimated P load reduction should be copied and pasted from the STP calculator output.		
Input	*Input*	*Output*	*Input*	*Input*	*Input*	*Output Value*	*Output Value*
Project ID	Project Type	Estimated Project Type Design Life	Total Estimated Project Cost (design and construction)	Estimated Project Cost to be Covered by Formula Grant Funds (design and construction)	Calculated Estimated P Load Reduction (kg/yr)	Total Project Estimated Cost Effectiveness ($/kg/yr)	Formula Grant Estimated Cost Effectiveness ($/kg/yr)
Long Meadow Brook Floor	Strategic Wood Addtion	10	$23,688.00	$16,499.00	1.21	$29,316.83	$20,419.55

Long Meadow Brook Ceiling	Strategic Wood Addtion	10	$23,688.00	$16,499.00	2.28	$15,577.38	$10,849.85
Long Meadow Brook Avg	Strategic Wood Addtion	10	$23,688.00	$16,499.00	1.75	$20,304.00	$14,142.00

Detailed Project Budget

Budget

Expense/Item	CWSP Grant Request	Leveraged Funds/ Match	TOTAL
Project Management/Completion: all direct staff expenses including salary and fringe benefits (all deliverables documentation and reporting tasks should also be included)	$2,682	$0.00	$2,682
Mileage	$53	$0.00	$53
Contractual (can include up to 15% contingency)	$12,265	$6,535.00	$18,800
Other eligible direct costs (see 2023 CWIP Funding Policy)	$0	$0.00	$0
Project Completion **SUBTOTAL**	$14,999	$0.00	$21,534
Indirect: Up to 10% on indirect for up to $50,000 of contractual costs and up to 10% on all other eligible expenses (project management, mileage, etc).	$1,500	$0.00	$2,153
Project Completion TOTAL (Project Completion SUBTOTAL + Indirect	***$16,499***	***$0***	***$23,688***

Budget Explanation				
Category	**Item**	**Cost / Item**	**Quantity**	**Total**
Project Management/Completion: all direct staff expenses including salary and fringe benefits (all deliverables documentation and reporting tasks should also be included)	2025 Project Manager Rate per Hour	$38.30	48	$1,838.40
Project Management/Completion: all direct staff expenses including salary and fringe benefits (all deliverables documentation and reporting tasks should also be included)	2025 Executive Director Rate per Hour	$46.85	18	$843.30
Mileage	Round Trip Cost. Current IRS Rate ($0.7/mil) x 15 miles	$10.50	5	$52.50
Contractual (can include up to 15% contingency)	0.47 Miles of SWA Implementation	$16,925.00	1	$16,925.00
Contractual (can include up to 15% contingency)	Reporting	$1,875.00	1	$1,875.00

Landowner Communication

Gmail James King <james@redstartconsulting.com>

potential stream visit next week

6 messages

James King <james@redstartconsulting.com> Thu, Mar 27, 2025 at 10:06 AM
To: Carley <carley.claghorn@gmail.com>

Hi Carley,

I hope you found our message on NRCS funding to be reassuring that the work will not incur any costs to you. If there are any further questions or doubt, let me know and I will look into it.

My colleague Finley and I would be interested to visit your stream for about an hour or two next week. Would either Monday or Tuesday be possible for that?

Thank you,
James

Carley <carley.claghorn@gmail.com> Sun, Mar 30, 2025 at 8:51 AM
To: James King <james@redstartconsulting.com>

Yes, either of those days would be fine. And yes, your reassurance around funding was helpful.

Best,
Carley

[Quoted text hidden]

James King <james@redstartconsulting.com> Sun, Mar 30, 2025 at 2:55 PM
To: Carley <carley.claghorn@gmail.com>

Sounds good. Finley and I will be there around 8:30 or 9 tomorrow. Thank you.

Best,
James
[Quoted text hidden]

James King <james@redstartconsulting.com> Mon, Mar 31, 2025 at 6:10 AM
To: Carley <carley.claghorn@gmail.com>

Hi Carley,

Unfortunately Finley is out sick today and we have to reschedule for Wednesday morning, if that is possible.

Best,
James
[Quoted text hidden]

Carley <carley.claghorn@gmail.com> Mon, Mar 31, 2025 at 6:40 AM
To: James King <james@redstartconsulting.com>

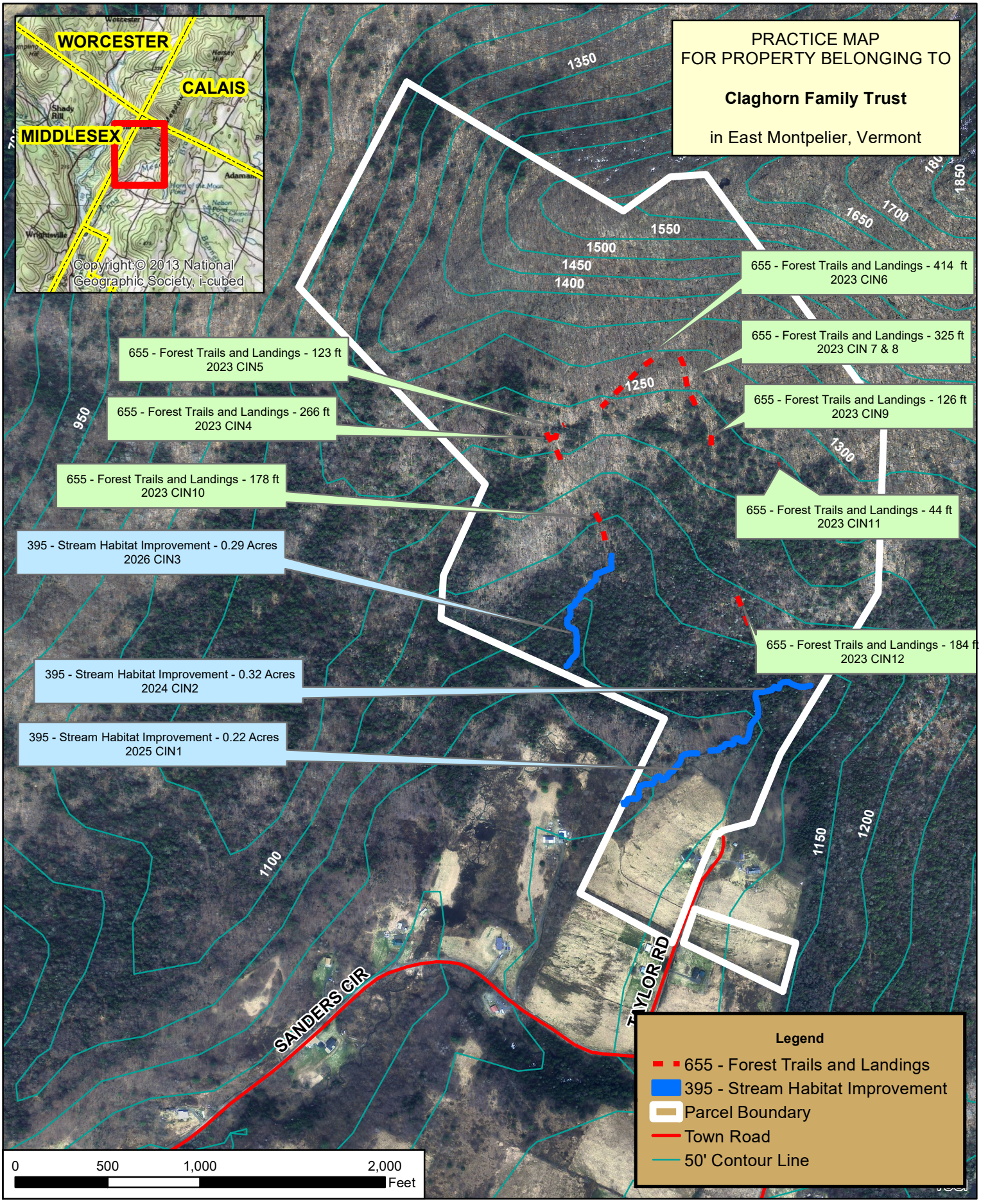
Hi James,

Sure, Wednesday is fine. It would have been pretty wet walking in the woods today !

Carley
[Quoted text hidden]

James King <james@redstartconsulting.com> Mon, Mar 31, 2025 at 4:31 PM
To: Carley <carley.claghorn@gmail.com>

Thank you!
[Quoted text hidden]



Coordinate System: NAD 1983 StatePlane Vermont FIPS 4400
This map was created from the Town tax maps, handheld GPS points, and on the ground observations.
*****THIS IS NOT A SURVEY*****

N

1:8,000

1 inch = 666.7 feet

Map Created By: C. Dana Hazen
March 2023

Redstart Natural Resource Management