



**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: <ul style="list-style-type: none"> • 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)	
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)	

1. Applicant Information

Organization/Municipality Name:

Primary Contact:

Title:

Mailing Address:

Phone Number:

E-mail Address:

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.

2. Project Information

Project Title:

Watershed Projects Database ID*:

* 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.*

* 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:

Project GPS coordinates (e.g. 44.26278, -72.58054):

Project Sub-basin:

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)*

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

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):

Project description (250 words max):

Reference contact information:

Name:

Affiliation:

Phone:

Email:

Example Project 2:

Watershed Projects Database ID (if applicable):

Project staff & their project role(s):

Project description (250 words max):

Reference contact information:

Name:

Affiliation:

Phone:

Email:

Example Project 3:

Watershed Projects Database ID (if applicable):

Project staff & their project role(s):

Project description (250 words max):

Reference contact information:

Name:

Affiliation:

Phone:

Email:

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):

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 (\$0.725 / 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:

State matching funds:

Non-State matching funds:

Total project budget:

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:

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?

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)?

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

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?

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?

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:

b) **LANDOWNER RELATIONS**

◇ PROPERTY OWNERSHIP: The project will be located on:

◇ 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.

◇ 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:

◇ O & M AGREEMENT: There is a signed operations & maintenance agreement for this project:

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:

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.

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

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:

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.

Marshfield Road Calais Gully Project

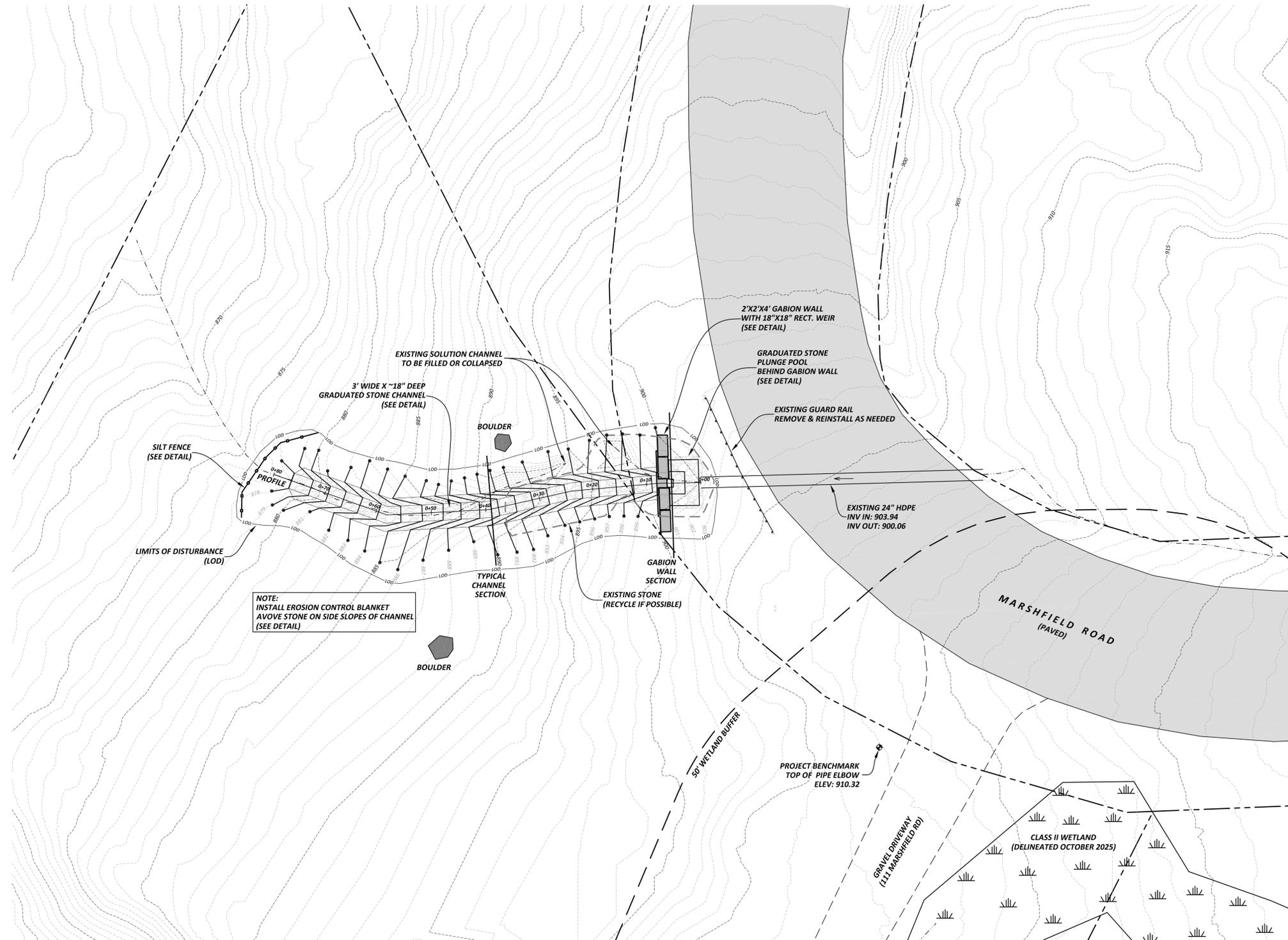
2/27/2026

Calais, VT

Opinion of Probable Costs



<i>Vtrans Code</i>	<i>Item</i>	<i>Description</i>	<i>Amount</i>	<i>Unit</i>	<i>Amount</i>	<i>Unit</i>	<i>Total</i>
General Construction							
Site Preparation							
653.475	Silt Fence	Silt fence	24	LF	\$ 10.00	\$/LF	\$ 240
653.2002	Erosion Blankets	Stabilization of side slopes	7	SY	\$ 5.60	\$/SY	\$ 39
203.2	Muck Excavation	Excavation of stone channel	67	CY	\$ 45.00	\$/CY	\$ 3,033
613.10	Stone Fill (type I)	Stone fill for top 12" of stone channel and gabions	29	CY	\$ 81.44	\$/CY	\$ 2,374
301.26	1-1/2" Coarse Aggregate	Crushed stone	14	CY	\$ 86.78	\$/CY	\$ 1,205
301.15	Crushed Gravel	Base of stone channel	12.6	CY	\$ 88.08	\$/CY	\$ 1,110
NA	Gabion Cages	2' x 2' x 4' Gabion Cages	7	Each	\$ 30.00	\$/Each	\$ 210
NA	Tree clearing	Clear site for access		Lump		\$	\$ 5,000
621.02	Guardrail	Remove and Rest	28	LF	\$ 12.00	\$/LF	\$ 336
NA	Seed (Vermont Conservation Seed Mix)	Grass seed coverage	8	LB	\$ 14.00	\$/LB	\$ 112
NA	Allowance for Difficult Access	Additional cost added for challenging access (40%)		%	40%	\$	\$ 5,464
Subtotal Construction Cost:							\$ 19,123
Mobilization/Demobilization							\$10,000
Legal/Easement							\$5,000
Construction Engineering							\$12,000
Contingency (40%)							\$7,649
Total (rounded to the next highest \$1,000) =							\$54,000

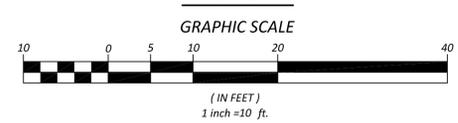


LEGEND

- PROPERTY LINE
- EXISTING CONTOUR
- FINISH GRADE CONTOUR
- - - - SURFACE DRAINAGE
- GUARDRAIL
- LOD
- LIMITS OF DISTURBANCE
- SILT FENCE
- ⊕ PROJECT BENCHMARK

NOTE:
INSTALL EROSION CONTROL BLANKET
ABOVE STONE ON SIDE SLOPES OF CHANNEL
(SEE DETAIL)

SITE PLAN



FOR CONSTRUCTION

MARSHFIELD ROAD ERODED CHANNEL
EAST CALAIS, VERMONT

CHANNEL STABILIZATION PLAN

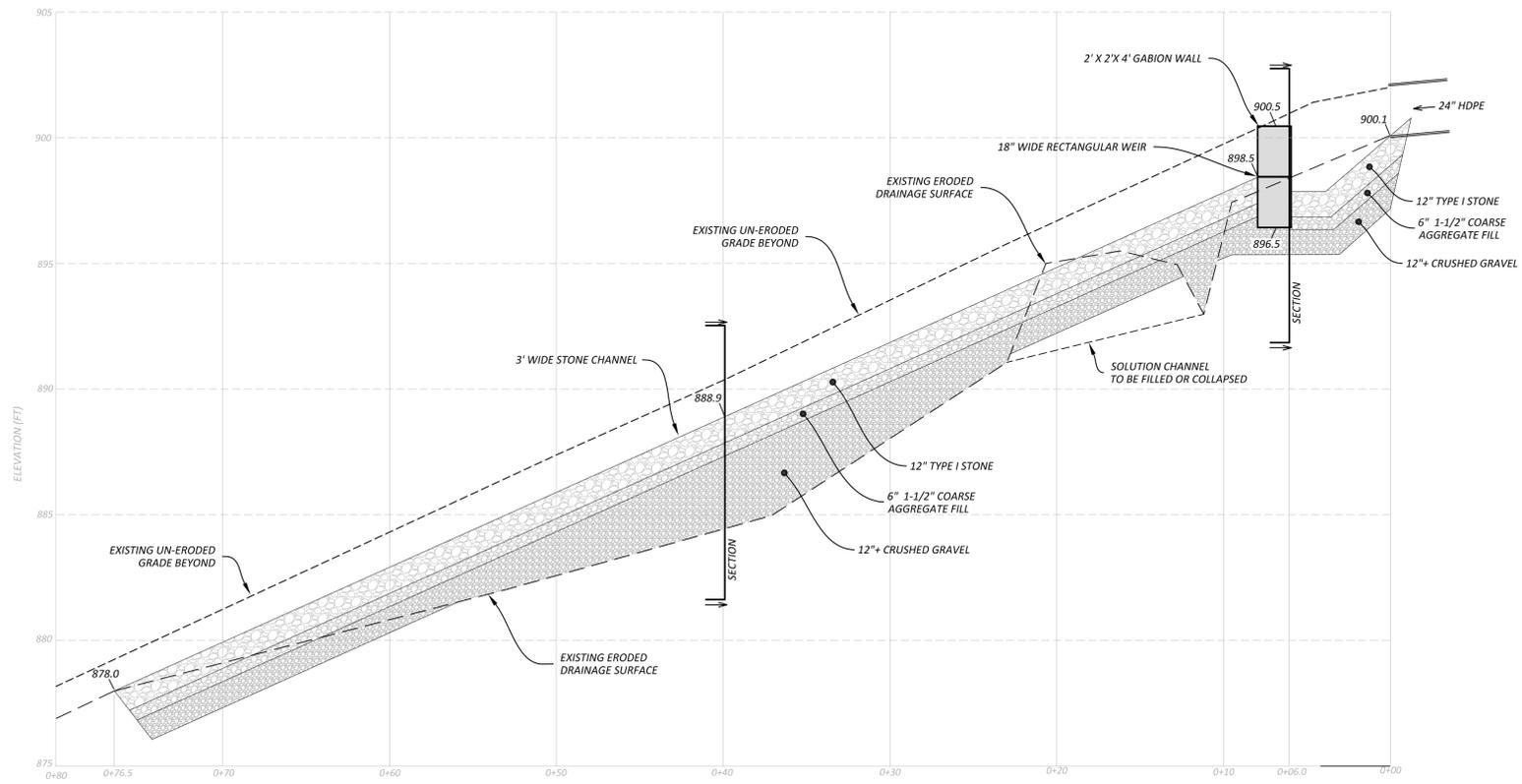
Stormwater Management | Water Quality | Erosion Control
208 Flynn Ave, Suite 2H P.O. Box 4413
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Mobile: 802.922.4871 | Main: 802.497.2367
www.watershedca.com



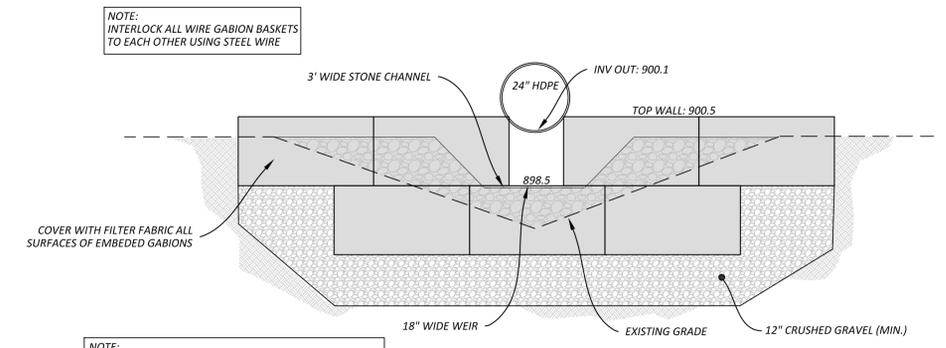
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DATE:	2/20/26	CHECKED BY:	AT/TMC	SHEET:	1 OF 3

- NOTES**
1. THIS IS NOT A BOUNDARY SURVEY. PROPERTY BOUNDARIES ARE FROM TAX MAPS AND ARE APPROXIMATE.
 2. EXISTING ELEVATION DATA IS FROM VT LIDAR DATA AND SUPPLEMENTED WITH TOTAL STATION SURVEY BY THIS OFFICE ON 6/13/2025.
 3. THE PRESENCE OF UNDERGROUND UTILITIES MUST BE VERIFIED PRIOR TO ANY CONSTRUCTION OR DISTURBANCE.

MARSHFIELD RD.dwg



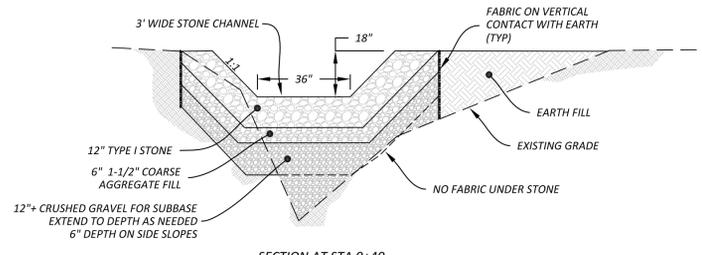
STONE CHANNEL PROFILE
NTS



NOTE:
INTERLOCK ALL WIRE GABION BASKETS TO EACH OTHER USING STEEL WIRE

NOTE:
GABION BASKETS TO BE CONSTRUCTED IN ACCORDANCE WITH N.R.C.S. VERMONT CONSTRUCTION SPECIFICATION 45 FOR WIRE MESH GABIONS.

SECTION AT STA 0+06.0
GABION WALL DETAIL
NTS



TYPICAL STONE CHANNEL DETAIL
NTS

AGGREGATE SPECIFICATIONS:

TYPE I STONE FILL
(VTRANS SEC. 706.04(A))
THE LONGEST DIMENSION OF THE STONE SHALL VARY FROM 1 INCH TO 12 INCHES, AND AT LEAST 50 PERCENT OF THE VOLUME OF THE STONE IN PLACE SHALL HAVE A LEAST DIMENSION OF 4 INCHES.

CRUSHED GRAVEL FOR SUBBASE
(VTRANS SEC. 704.05(A))
SHALL BE PRODUCED FROM NATURAL GRAVELS OR CRUSHED QUARRIED ROCK

SIEVE DESIGNATION	PERCENT PASSING BY WEIGHT
2 inch (50.0 mm)	100
1-1/2 inch (37.5 mm)	90 - 100
No. 4 (4.75 mm)	30 - 60
No. 100 (0.150 mm)	0 - 12
No. 200 (0.075 mm)	0 - 6

COURSE AGGREGATE 1-1/2"
(VTRANS SEC. 704.02C)
SHALL CONSIST OF CLEAN, HARD, CRUSHED STONE OR WASHED CRUSHED GRAVEL

SIEVE DESIGNATION	PERCENT PASSING BY WEIGHT
2 inch (50.0 mm)	100
1-1/2 inch (37.5 mm)	95 - 100
3/4 inch (19.0 mm)	35 - 70
3/8 inch (9.50 mm)	10 - 30
No. 4 (4.75 mm)	0 - 5

FOR CONSTRUCTION

MARSHFIELD ROAD ERODED CHANNEL
EAST CALAIS, VERMONT

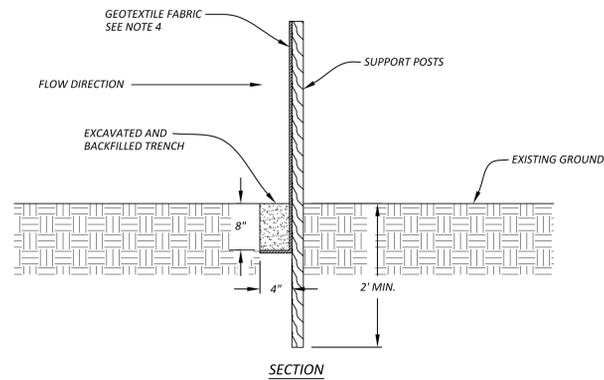
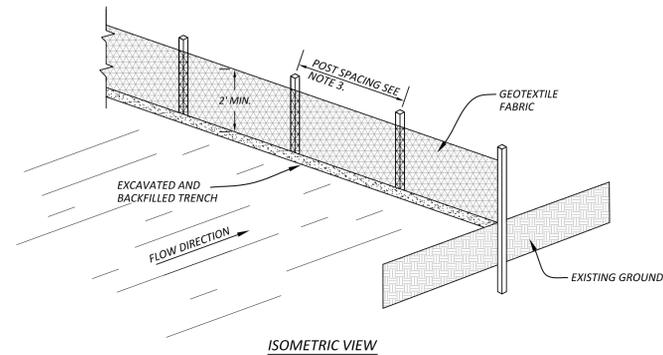
CONSTRUCTION DETAILS

WATERSHED CONSULTING
Stormwater Management | Water Quality | Erosion Control
208 Flynn Ave, Suite 2H P.O. Box 4413
Burlington, VT 05406
Mobile: 802.922.4871 | Main: 802.497.2367
www.watershedca.com

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MARSHFIELD RD.dwg



SILT FENCE DETAIL
NTS

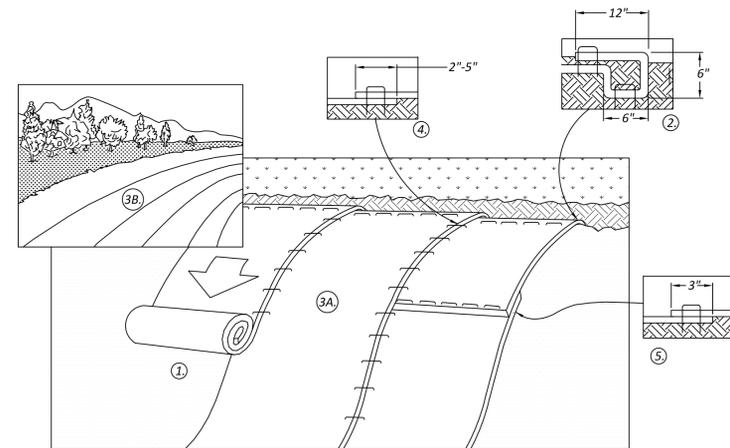
SILT FENCE NOTES

- SILT FENCE WILL BE USED IN AREAS TO PREVENT SEDIMENT TRANSPORT FROM UPSLOPE AREAS AWAITING STABILIZATION. IT SHALL ALSO BE USED AS PART OF THE TEMPORARY EROSION CONTROL MEASURES AROUND MATERIAL STOCKPILES AND DOWN SLOPE OR EQUIPMENT STAGING AREAS.
- THE GEOTEXTILE FABRIC SHALL BE PLACED IN THE EXCAVATED TRENCH, BACKFILLED AND COMPACTED TO THE EXISTING GROUND SURFACE.
- WOODED SUPPORT POSTS SHALL BE A MINIMUM DIMENSION OF 1-1/8" X 1-1/8" AND 4 FEET LONG. STEEL POSTS SHALL BE STUDDED "TEE" OR "U" TYPE AND 5 FEET LONG. POST SPACING SHALL BE A MAXIMUM OF 8 FEET FOR WOVEN FABRIC AND 3 FEET FOR NON-WOVEN FABRIC.
- THE GEOTEXTILE FABRIC SHALL BE ATTACHED DIRECTLY TO THE UPSLOPE SIDE OF WOODEN POSTS WITH 0.5 INCH STAPLES IN AT LEAST 3 PLACES, OR WITH WOODEN LATH AND NAILS. ATTACHMENT TO STEEL POSTS WILL BE BY WIRE FASTENERS OR 50 POUND PLASTIC TIE STRAPS ON THE UPSLOPE SIDE.
- THE GEOTEXTILE FABRIC SHALL CONSIST OF EITHER WOVEN OR NON-WOVEN POLYESTER, POLYPROPYLENE, STABILIZED NYLON, POLYETHYLENE, OR POLYVINYLIDENE CHLORIDE. NON-WOVEN FABRIC MAY BE NEEDLE PUNCHED, HEAT BONDED, RESIN BONDED, OR COMBINATIONS THEREOF.
- SILT FENCE SHALL BE INSTALLED AS SHOWN ON PLAN.
- SILT FENCES BARRIERS SHALL BE INSPECTED FOR ANY TEARS OR BREAKS. ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY.
- SEDIMENT SHOULD BE REMOVED WHEN IT REACHES 1/3 HEIGHT OF THE FENCE. THE REMOVED SEDIMENT MAY BE USED AS FILL ELSEWHERE ON SITE AND SHALL BE VEGETATED OR OTHERWISE STABILIZED.
- REMOVE SILT FENCE, AS DIRECTED, WHEN NO LONGER NEEDED. BEFORE THE SILT FENCE IS REMOVED, STABILIZE WITH VEGETATION ANY SEDIMENT WHICH IS PERMITTED TO REMAIN IN PLACE.

LIMITS OF DISTURBANCE:

PRIOR TO COMMENCING LAND DISTURBANCE ACTIVITY, THE LIMITS OF LAND DISTURBANCE SHALL BE CLEARLY AND ACCURATELY DEMARCATED WITH 3-FOOT HIGH ORANGE "CONSTRUCTION" SAFETY FENCE OR 4-INCH THICK ORANGE CONSTRUCTION CORDON, AND SHALL BE LOCATED AS SHOWN ON PLAN.

- FENCE OR CORDON TAPE SHALL BE SUPPORTED BY STEEL OR WOOD TYPE POSTS PLACED AT MAXIMUM 16-FOOT INTERVALS.
- FENCE OR CORDON TAPE SHALL BE WIRED OR "ZIP" TIED TO THE SUPPORT POSTS.
- THE FENCE AND CORDON TAPE SHALL BE MAINTAINED IN A WORKMAN LIKE MANNER, AND SHALL REMAIN IN PLACE UNTIL FINAL SITE STABILIZATION IS ACHIEVED.



USE NORTH AMERICAN GREEN 150BN EROSION CONTROL BLANKET OR APPROVED EQUIVALENT.

- PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED. NOTE: WHEN USING CELL-O-SEED DO NOT SEED PREPARED AREA. CELL-O-SEED MUST BE INSTALLED WITH PAPER SIDE DOWN.
- BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE BLANKET IN A 6" (15 CM) DEEP X 6" (15 CM) WIDE TRENCH WITH APPROXIMATELY 12" (30CM) OF BLANKET EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE BLANKET WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" (30 CM) APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" (30 CM) PORTION OF BLANKET BACK OVER SEED AND COMPACTED SOIL. SECURE BLANKET OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" (30 CM) APART ACROSS THE WIDTH OF THE BLANKET.
- ROLL THE BLANKETS (A.) DOWN OR (B.) HORIZONTALLY ACROSS THE SLOPE. BLANKETS WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL BLANKETS MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE. WHEN USING THE DOT SYSTEM, STAPLES/STAKES SHOULD BE PLACED THROUGH EACH OF THE COLORED DOTS CORRESPONDING TO THE APPROPRIATE STAPLE PATTERN.
- THE EDGES OF PARALLEL BLANKETS MUST BE STAPLED WITH APPROXIMATELY 2" - 5" (5 CM - 12.5 CM) OVERLAP DEPENDING ON BLANKET TYPE.
- CONSECUTIVE BLANKETS SPICED DOWN THE SLOPE MUST BE PLACED END OVER END (SHINGLE STYLE) WITH AN APPROXIMATE 3" (7.5 CM) OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" (30 CM) APART ACROSS ENTIRE BLANKET WIDTH.
NOTE: IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" (15 CM) MAY BE NECESSARY TO PROPERLY SECURE THE BLANKETS.

SOURCE: NORTH AMERICAN GREEN

EROSION CONTROL BLANKET SLOPE INSTALLATION DETAIL
NTS

FOR CONSTRUCTION

MARSHFIELD ROAD ERODED CHANNEL
EAST CALAIS, VERMONT

EROSION PREVIENTION & SEDIMENT CONTROL DETAILS



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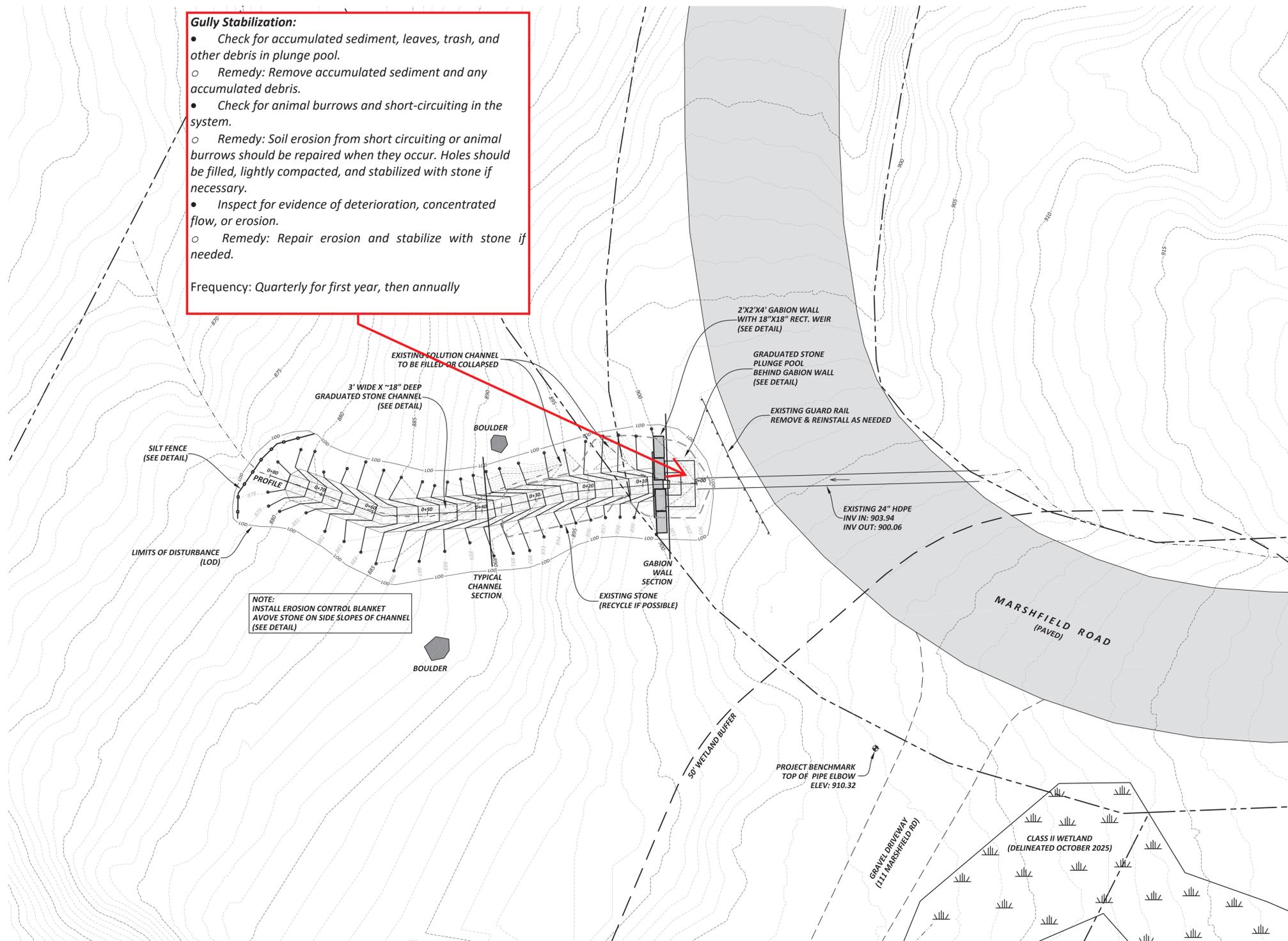


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DATE:	2/20/26	CHECKED BY:	AT/TMC	SHEET:	3 OF 3

Gully Stabilization:

- Check for accumulated sediment, leaves, trash, and other debris in plunge pool.
- Remedy: Remove accumulated sediment and any accumulated debris.
- Check for animal burrows and short-circuiting in the system.
- Remedy: Soil erosion from short circuiting or animal burrows should be repaired when they occur. Holes should be filled, lightly compacted, and stabilized with stone if necessary.
- Inspect for evidence of deterioration, concentrated flow, or erosion.
- Remedy: Repair erosion and stabilize with stone if needed.

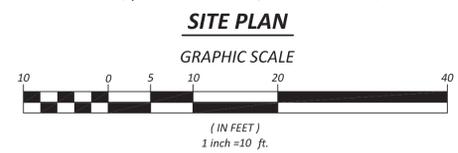
Frequency: Quarterly for first year, then annually



- LEGEND**
- PROPERTY LINE
 - EXISTING CONTOUR
 - FINISH GRADE CONTOUR
 - SURFACE DRAINAGE
 - GUARDRAIL
 - LIMITS OF DISTURBANCE
 - SILT FENCE
 - PROJECT BENCHMARK

OPERATION AND MAINTENANCE PLAN

FOR CONSTRUCTION



- NOTES**
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MARSHFIELD ROAD ERODED CHANNEL
EAST CALAIS, VERMONT

CHANNEL STABILIZATION PLAN

Stormwater Management | Water Quality | Erosion Control
208 Flynn Ave, Suite 2H P.O. Box 4413
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Mobile: 802.922.4871 | Main: 802.497.2367
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Gully or Outlet Stabilization Estimated Phosphorus Reduction Calculator

Sediment Erosion Rate = [volume of erosion treated (ft³) * sediment bulk density (kg / ft³)] / age of erosion (years)

TP Loading Rate = sediment erosion rate (kg/year) * sediment to TP weight conversion (kg P / kg sediment)

Variable	Value	Unit	Notes
Average sediment P content	0.000694	kg TP / kg sediment	The calculation of estimated annual phosphorus reduction in this tab applies only to gully or outlet stabilization implemented ephemeral streams adjacent to roads or other developed lands with curbs and catch basins. For projects that stabilize gully erosion that is adjacent to and entering a perennial stream, use the 'Stabilize Gully' practice type in the Floodplain Stream - Structure tab of this tool. For projects that address non-jurisdictional erosion on uncurbed roads without catch basins, use the Private Road tab. Rill erosion is generally characterized by a depth of less than 1ft Gully erosion is generally characterized by a depth of greater than 1ft If actual age of erosion is unknown, default values are as follows: - rill = 5 years - gully = 15 years
Sediment bulk density	35.08	kg / ft ³	
Phosphorus reduction efficiency (partial mitigation)	40%	percent of load	
Phosphorus reduction efficiency (full mitigation)	80%	percent of load	

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.

Fully mitigated = project has addressed the full extent of gully erosion.

Partially mitigated = project has addressed a portion of the gully erosion, for instance by stabilizing the area immediately around the outlet and within the right-of-way, but did not address the full extent of erosion.

Input	Input*	Input*	Input*	Dropdown*	Input*	Output value	Output value
Project Identifier	Average Length of Gully (ft)	Average Width of Gully (ft)	Average Depth of Gully (ft)	Level of Erosion Mitigation	Estimated Gully Age (years)	Gully Volume (ft ³)	Estimated P Load Reduction (kg/yr)
Marshfield Road Gully	60	12		6 Fully mitigated	15	4,320.00	5.61

2. Calais – Marshfield Road Gully

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:	

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	
Watershed Project Database Project Name	

Step 4: Conduct Eligibility Criteria #4 Screening: Natural Resource Impacts³

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 permit⁷)?
 - 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.”

¹⁰Note 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		
<p>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.</p> <p>Regulatory Point of Contact Name/Position:</p>		
III. Rivers, River Corridors, and Flood Hazard Areas		
<p>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 area¹²? (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.</p>	Yes	No
<p>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.</p> <p>Regulatory Point of Contact Name/Position:</p>		
<p>2. Is any portion of the project site within a perennial river or stream channel? <small>¹³</small></p>	Yes	No
<p>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.</p> <p>Regulatory Point of Contact Name/Position:</p>		
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."

<p>1. Does the Wetland Screening Tool¹⁴ provide a result of wetlands likely, very likely, or present at the project site?</p>	<p style="text-align: center;">Yes No</p>
<p>2. Does your project site involve land that is in or near an area that has <u>any</u> of the following characteristics:</p> <ul style="list-style-type: none"> 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.) 	<p style="text-align: center;">Yes</p> <p style="text-align: center;">No</p> <p style="text-align: center;">Not Sure</p>
<p>If you answered yes or not sure to <u>either</u> 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 <u>either</u> 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.</p> <p>Regulatory Point of Contact Name/Position:</p>	
<p>1. Is your project a Wetland Restoration project type?</p>	<p style="text-align: center;">Yes No</p>
<p>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.</p> <p>Regulatory Point of Contact Name/Position:</p>	
<p>V. Fish and Wildlife</p>	
<p>State law protects endangered and threatened species. No person may take or possess such species without a Threatened & Endangered Species Takings permit.</p> <p>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</p>	<p style="text-align: center;">Yes No</p>

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

2. Is the project site within 1 mile of a mapped¹⁵ Significant Natural Community or Rare, Threatened, or Endangered Species?	Yes	No
<p>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.</p> <p>Regulatory Point of Contact Name/Position:</p>		
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
<p>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.</p> <p>Regulatory Point of Contact Name/Position:</p>		
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
<p>If yes, connect with the Waste Management & Prevention Division (dennis.fekert@vermont.gov 802-522-0195) to discuss your project and any necessary permitting.</p> <p>Regulatory Point of Contact Name/Position:</p>		
<p>Provide below or attach a narrative summary of Table 4 findings. Please include:</p> <ol style="list-style-type: none"> Which permits or permit amendment are needed or might be needed? What type might be needed? (e.g. a general or individual permit)? What concerns were voiced by permitting staff? 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.

<p>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.</p>	<p>No¹⁸ - There is no additional requirements related to agricultural review for these projects.</p>
<p>2. Is the proposed project an agricultural project?</p> <p>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.</p>	<p>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.</p> <p>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 (VAAFAM) to ensure a consistent approach on farms statewide that follows rules, regulations, and laws in place. Please follow Steps 1 & 2 below.</p> <p>Step 1- Please submit a detailed description of the project, project site, project details, landowner, farm operation, and any other relevant information to VAAFAM at AGR.WaterQuality@Vermont.gov .</p> <p>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.</p>
<p>Agricultural Project Review Status & Summary:</p>	
<p>Check as Applicable</p>	<p>Status</p>
	<p>Submitted/ Pending</p>
	<p>Approved</p>
	<p>Denied</p>

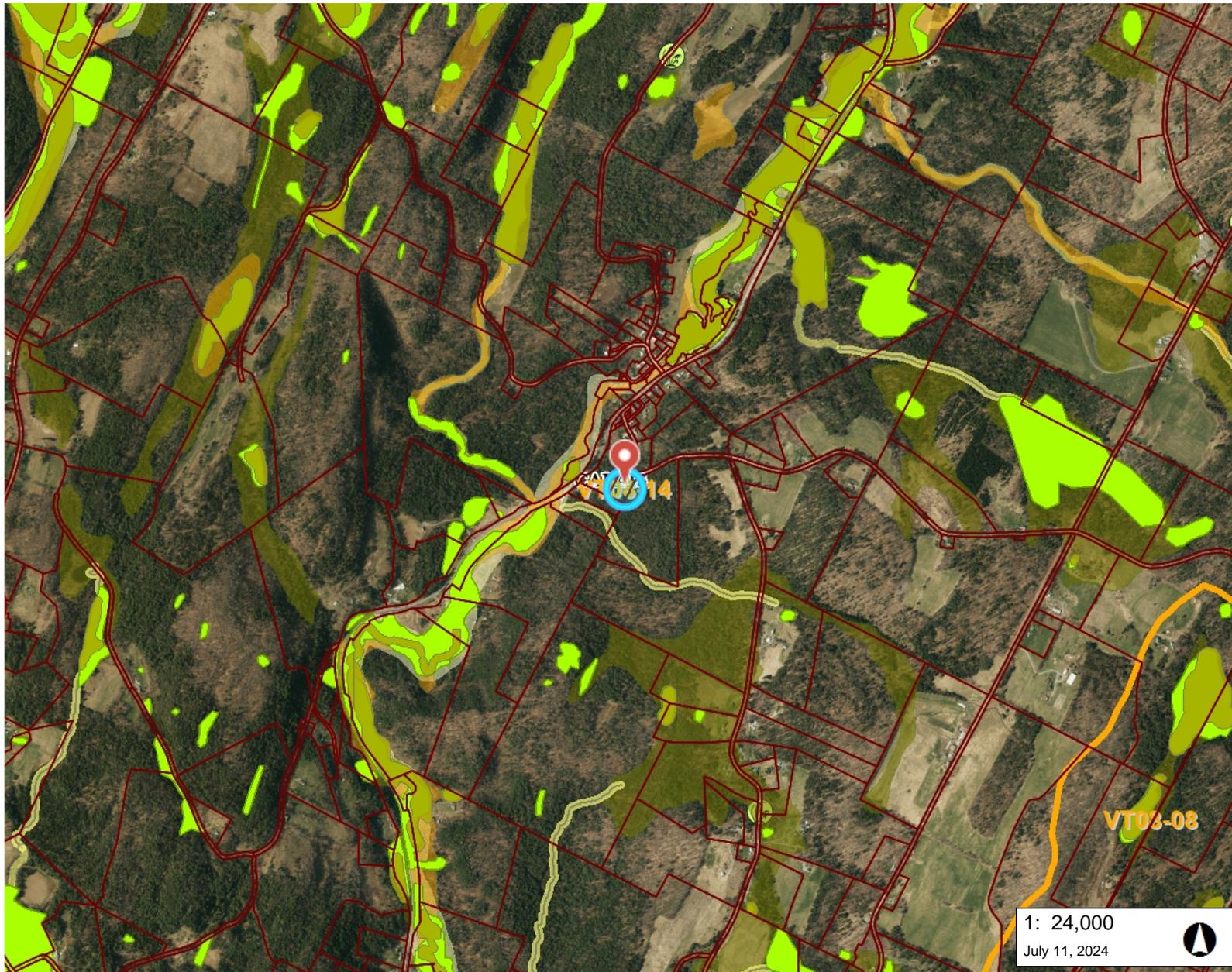
¹⁸ Note CWIP’s Agricultural Pollution Prevention project type eligibility is limited to land where owner or operator is not a jurisdictional farm (i.e., not required to meet the Required Agricultural Practices (RAPs)). As such, projects that meet the definition of the Agricultural Pollution Prevention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

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.

2. Calais – Gully stabilization on Marshfield

Vermont Agency of Natural Resources



LEGEND

- Wetland - VSWI**
 - Class 1 Wetland
 - Class 2 Wetland
 - Wetland Buffer
- Wetlands Advisory Layer
- River Main Stem Waterbodies
- WBID Watersheds
- Flood Hazard Areas (Only FEM)**
 - AE (1-percent annual chance flood)
 - A (1-percent annual chance floodpl.)
 - AO (1-percent annual chance zone feet)
 - 0.2-percent annual chance flood ha
- River Corridors (Aug 27, 2019)
 - .5 - 2 sqmi.
 - .25-.5 sqmi.
- Soils - Hydric
- Parcels (standardized)
- ACT250 Permits
- Town Boundary

1: 24,000
July 11, 2024

NOTES

Map created using ANR's Natural Resources Atlas

1,219.0 0 610.00 1,219.0 Meters

WGS_1984_Web_Mercator_Auxiliary_Sphere 1" = 2000 Ft. 1cm = 240 Meters

© Vermont Agency of Natural Resources THIS MAP IS NOT TO BE USED FOR NAVIGATION

DISCLAIMER: This map is for general reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable. ANR and the State of Vermont make no representations of any kind, including but not limited to, the warranties of merchantability, or fitness for a particular use, nor are any such warranties to be implied with respect to the data on this map.

Supporting Email Documentation:

From: Teegan Dykeman-Brown <townclerk@calaisvermont.gov>
Sent: Wednesday, August 28, 2024 9:38 AM
To: Lincoln Frasca <frasca@cvregion.com>; Kari Bradley <townadmin@calaisvermont.gov>
Cc: Brian Voigt <Voigt@cvregion.com>
Subject: RE: CVRPC Upper Winooski Water Quality Restoration - Project Development

Hi Lincoln,
We're all on board with going ahead with the gully stabilization project. Thanks!

Teegan

Teegan Dykeman-Brown
(she/her)
Calais Town Clerk
3120 Pekin Brook Road
East Calais, VT 05650
(802) 456-8720
www.CalaisVermont.gov

From: Lincoln Frasca <frasca@cvregion.com>
Sent: Monday, August 26, 2024 1:46 PM
To: Teegan Dykeman-Brown <townclerk@calaisvermont.gov>; Kari Bradley <townadmin@calaisvermont.gov>
Cc: Brian Voigt <Voigt@cvregion.com>
Subject: RE: CVRPC Upper Winooski Water Quality Restoration - Project Development

Hi Teegan and Kari,
I received word from the DEC that the culvert project is not currently eligible for Clean Water Funding because there are not currently methods to credit Phosphorus reductions for unmapped crossing structures on unmapped streams. I will keep you updated if there are any changes to unmapped crossing/unmapped stream guidance.

For now, I'd suggest we move forward with an application for preliminary design work to be completed for the gully stabilization project if there is continued support from the Town and Teegan. If everyone is still on board, I will begin drafting the application and we will know whether or not funds have been awarded by mid-October.

Thank you,
Lincoln

Central Vermont Regional Planning Commission: Marshfield Road Stormwater Gully Implementation

Project Timeline

Task		Deliverable(s)	Delivery Date
0	Award Start	Execute subgrant documents	4 May 2026
1	Kick-off meeting held	Copy of kick-off meeting notes	11 May 2026
2	Operations & Maintenance Plan	Signed 10-year minimum DEC Operations & Maintenance Plan	15 June 2026
3	Access license	Signed 10-year minimum access license.	15 June 2026
4	Construction bid solicitation & contractor selection	<ul style="list-style-type: none"> • Bid solicitation issued • Pre-bid site visits • Contractor selected 	27 July 2026
5	Final Permitting	Required permits secured	27 July 2026
6	Pre-construction kick-off meeting	Copy of Pre-construction kick-off meeting notes	17 August 2026
7	Clean Water Project Sign Installed	Photo of sign installed on site during construction	1 September 2026
8	Stormwater BMP(s) implemented & Final walkthrough	Final construction walkthrough notes and photos of site(s) post-implementation.	30 September 2026
9	Completion of permit-required activities / VDHP Treatment Plan Implementation (if applicable)	Final construction walkthrough notes and photos of site(s) post-implementation.	30 September 2026
10	Return of Clean Water Project sign	Signed and returned to CVRPC office	30 September 2026
11	Final project report	<ul style="list-style-type: none"> • As built drawings / red-lined 100% designs • Lit of change orders describing adjustments made during construction • Final Performance Report / ANR Online Clean Water Project – Closeout Form 	26 October 2026

Project Budget

Expense	Funding Request
PROJECT MANAGEMENT	
Project Management (Voigt)	\$1,350.00
Mileage Charges	\$39.15
Indirect	\$837.00
Project Management Sub-total	\$2,226.15
SUBCONTRACTORS	
Construction Oversight (engineering sub-contract)	\$12,000.00
Implementation (construction sub-contract)	\$42,000.00
Subcontractor Sub-total	\$54,000.00
Project Completion Total	\$56,226.15

Brian Voigt, Project Manager:

FY25 Rates Salary + Benefits (per hour): $\$54 \times 25 \text{ hours} = \$1,350$

Mileage Charges:

CVRPC Office (Montpelier) to Marshfield Road: 27 miles round trip x 2 trips x $\$0.725/\text{mi} = \39.15

FY26 Indirect Rate (salary and benefits only): $62\% \times \$1,350 = \837.00