

## APPLICATION FOR INDIVIDUAL SECTION 401 WATER QUALITY CERTIFICATION

Vermont Water Pollution Control Permit Regulation 10 VSA. 1258(6) Section 13.11 (b)

<b>For DEC Staff Use Only</b>		
Date of Receipt: _____ Certification number: _____		
<b>A. Pre-application Meeting:</b> Have you had your meeting yet? The Department of Environmental Conservation strongly encourages applicants to schedule and attend a pre-application meeting with affected programs prior to submitting an application.		
Yes, the meeting was held on _____ with DEC staff _____		
If you need to schedule a meeting, please call 802-490-1115 or email <a href="mailto:ANR.WSMD401@vermont.gov">ANR.WSMD401@vermont.gov</a> .		
<b>B. Applicant Contact Information</b>		
1. Name: _____		
2. Mailing Address: _____		
3. Town: _____	4. State: _____	5. Zip: _____
6. Phone: _____	7. Email: _____	
<b>C. Representative:</b> Consultant, engineer, or other representative that is responsible for filling out this application, if other than the applicant.		
1. Name: _____		
2. Mailing Address: _____		
3. Town: _____	4. State: _____	5. Zip: _____
6. Phone: _____	7. Email: _____	
<b>D. Landowner:</b> If the applicant is not the landowner, please provide a list of all landowners owning property that is part of the project site		
1. Name: _____		
2. Mailing Address: _____		
3. Town: _____	4. State: _____	5. Zip: _____
6. Phone: _____	7. Email: _____	
<b>E. 1. Resource Proposed for Alteration:</b>		<b>E. 2. Type(s) of Proposed Alteration(s):</b>
Wetlands      Stream / Rivers      Lake / Pond / Reservoir  Name of Resource(s) (Please use consistent ID#s throughout the application for identification of unnamed resources.)  _____ _____ _____		Stream / River Crossing      Utility Line or Linear Transportation Project  Intake / Outfall Structure      Stream or Wetland Restoration  Wetland Fill / Excavation      Dredging  Launch Ramp      Bank Stabilization  Impoundment  Other: _____

F. Project Details		
1. Project/Site Name:		
2. Address:	Please follow this link to the <a href="#">ANR Atlas Map</a>	
3. Town/County:	4. Longitude:	5. Latitude:
6. Compass Directions & Road(s): Compass direction of the project in relation to the road(s) or nearest intersection. Name the road(s) that the project is located on		
7. Geographic Features: Identify any distinguishing geographic features near project location site		
8. Project Description Summary: Give a short narrative summary describing what the project is		
9. Project Description Details: Give a detailed narrative description of the project, including phasing and a list of specific project components		
10. Project Purpose:		
11. Project acres:  _____	12. Site slope percent: (Please provide the maximum slope percent. For linear projects, please provide the minimum and maximum slope percentage across the project)  _____ %	13. Total disturbed area associated with the project:  _____

**14. Physical description of project area:**

**15. Soil K-Factor(s):**

**16. Hydrologic Soil Group(s)**

**17. Receiving Waters:** Identify all surface waters within the major basins (including streams/rivers, wetlands, and lakes) that drain from the project, beginning with waters within the proposed project area and progressing downstream. If the waterbody does not have a formal name, a descriptive name should be provided (e.g. unnamed tributary of the Mad River). (There are 17 major watershed basins defined by VTDEC in: <https://dec.vermont.gov/watershed/map/assessment>)

**18. Watershed Area Summary from Project Area to Receiving Waters**

Watershed(s)	Watershed Area (acres)	Disturbed Area (acres)	% Area Disturbed

**G. Cumulative Impacts:** For help identifying environmental features regarding your property use the VTANR Natural Resources Atlas: <https://dec.vermont.gov/maps>

**1. Impervious surface:** \_\_\_\_\_ surface % of property \_\_\_\_\_ sq. ft All existing impervious trail surface

**2. Land Use:** Describe current and prior uses of the project property, including activities such as logging and agriculture or other uses that may have impacted water quality.

**3. Land Cover:** Percent and type of change in land cover associated with the project relative to natural cover

If the Agency finds that additional information on the current condition of the receiving water(s) beyond what is available is needed to adequately assess potential impacts from the proposed activity, the applicant will be required to supply that information.

**H. Resource Descriptions:**

**1. Wetland Resources**

**a. Type of wetland(s):** Describe the wetland(s) in the project area including the total number of wetlands in the area, the square footage of each wetland, the number of Class II and III wetlands (according to the Vermont Wetland Rules). If more than two wetlands will be affected by the project, fill out Wetland Resource Table 2, Appendix II

**b. Wetland Pre-Project Cumulative Impacts:** Describe any known pre-project cumulative impacts to wetlands from land use, agriculture, forestry, development, etc.

**c. Wetlands Impacted:** Describe the proposed impacts to the wetlands and buffer area (include impacts from fill, clearing, temporary trenching, etc.)

**d. Wetland Impact Table:** Fill out the Wetland Impact Table, Appendix III

**e. Converted Wetlands:** List the square footage of wetlands converted from one type of wetland to another. Example would be conversion of forested wetland to shrub wetland for power line right of way clearing. Submit table if needed as an appendix.

**2. Stream/River Resources:**

**a. Streams/Rivers Impacted:** Describe the perennial streams impacted by the project.

**b. Stream/River Impact table:** Fill out the following table with perennial streams impacted by the project, Appendix IV

**c. Summary of Physical Impacts to Streams/Rivers**

**Proposed Stream Area Impacts**

Project Component	Permanent (s.f.)	Permanent (acres)	Temporary (s.f.)	Temporary (acres)	Total (s.f.)	Total (acres)

**d. Stream/Rivers Pre-project Cumulative Impacts:** Describe any known pre-project cumulative impacts to streams and rivers from land use and development, etc.

**e. Impacts to the Geomorphic Condition and Geomorphic Sensitivity of the Stream:** Describe using phase I & phase II stream geomorphic stream assessment protocols. Geomorphic condition means the degree of departure, if any, from the dimensions, pattern, and profile associated with the naturally stable channel that results from the unique set of natural stream processes or dynamic equilibrium conditions of a stream or river segment. Geomorphic sensitivity means the potential of a river, given its inherent characteristics and present geomorphic conditions, to be subject to a high rate of fluvial erosion and other river channel adjustments, including erosion, deposit of sediment, and flooding.

### 3. Physical, Chemical, & Biological Conditions.

**a. Physical Water Conditions:** Summarize the physical conditions of the waters the project impacts or discharges into, including, temperature regime, conductivity, pH, turbidity, suspended sediment, and substrate type. Document source of data, geo-referenced to sampling location. If data are from the Bio-monitoring Sites Layer or the DEC Watershed Data Portal on the VTANR Atlas <https://dec.vermont.gov/maps>, please reference specific station identification numbers. Data are also available at <https://dec.vermont.gov/watershed/business-support/water-quality-certification-section-401>

**b. Chemical Water Conditions:** Summarize the chemical conditions of the waters the project impacts or discharges into, including, as available, total phosphorus and nitrogen, biochemical & chemical oxygen demand, hardness, metals, *E. coli*, and other data relevant to evaluation of the chemical condition of waters. If data are from the Bio-monitoring Sites Layer or the DEC Watershed Data Portal on the VTANR Atlas <https://dec.vermont.gov/maps> please reference specific station identification numbers. Data are also available at <https://dec.vermont.gov/watershed/business-support/water-quality-certification-section-401>

**c. Biological Water Conditions:** Summarize the biological water conditions of the waters the project impacts or discharges into. If data are available, summarize biological condition in relation to DEC biological assessment endpoints as described by <https://dec.vermont.gov/watershed/map/monitor/biomonitoring>. Document the occurrence or absence of aquatic rare, threatened, or endangered plant or animal species. If data are from the DEC Watershed Data Portal on the VTANR Atlas <https://dec.vermont.gov/maps>, please reference specific station identification numbers. Follow-up with the Fish & Wildlife Department's Natural Heritage Inventory (802-371-7333) if any such species are present.

#### 4. Fish & Wildlife Resources

The Vermont Fish and Wildlife Department was consulted at multiple times through the development of the project plans to ensure that fisheries resources were adequately addressed by the Project. Locations where Project improvements were anticipated to affect perennial waterways (i.e., culverts and bridges) were shared with FWD in order to identify sites where aquatic organism passage (AOP) needed to be considered. These recommendations were taken into consideration and structures that were replaced provide bankfull channel width and embedment criteria that allow for AOP. Fisheries resources include the Lamoille River, Black River and their tributaries. During their review, FWD identified several locations where species such as brook trout, rainbow trout, longnose dace, blacknose dace, and others have been identified. In addition, from the Lamoille River Basin Water Quality Management Plan identifies additional fisheries resources within the Lamoille River watershed include populations of brown trout, rainbow, and brook trout in the upper reaches of the watershed (general up river from Cambridge). Down river from Cambridge where the gradient is lower and the channel is wider, trout are less common, and warmwater species are more common including smallmouth bass, rock bass, fallfish, and very occasionally walleye.

Wildlife: For help identifying wildlife habitat, natural communities, and rare, threatened, or endangered species use the VTANR Natural Resources Atlas: <https://dec.vermont.gov/maps>

**b. Habitat:** Provide an assessment of wildlife habitat within the project area. This must include a description of the methods employed to identify, map, and assess the habitats. Include a map that depicts all the wildlife habitat resources of the area (e.g., deer wintering habitat, riparian habitat, floodplain forest natural communities, wetland types).

**c. Natural Communities:** Provide an assessment of significant natural communities within the project area. This must include a description of the methods employed to identify, map and assess the communities. Include a map that depicts the natural communities.

**d. Rare, Threatened, and Endangered Species:** Provide a description of the anticipated and other possible impacts of the proposed project on the foregoing wildlife resources and how those will be avoided or minimized.

**e. Wildlife Affects & Minimization:** Provide a description of the anticipated and other possible impacts of the proposed project on the foregoing wildlife resources and how those will be avoided or minimized.


**I. Additional Permits and Supporting Documents:** Supporting Documents (Appendix I). Please list any additional Supporting Documents and attach to application labeled Appendix I. This should include, but not be limited to Memorandum of Understanding (MOU)'s with the Vermont Agency of Natural Resources (if applicable), applicable state and federal permits and permit applications, federal 404 permit application including alternatives analysis and mitigation package, site maps and plans, vegetation management plans, easement information, etc. Complete on an attached sheet if more room is needed. In the brief description column include page numbers for each appendix for quick reference. **\*\*Note, this section needs to be updated as supporting documents are updated.**

<u>Appendix</u>	<u>Document Title</u>	<u>Preparing Agent</u>	<u>Date of Last Revision</u>	<u>Brief Description</u>
Appendix IA				
Appendix IB				
Appendix IC				
Appendix ID				
Appendix IE				
Appendix IF				
Appendix IG				
Appendix IH				

**J. Fee:**

Pursuant to 3 V.S.A. § 2822(j)(30), use the following formula to calculate the certification fee: 1% of project cost with a minimum of \$200.00 and a maximum of \$20,000.00.

Project Cost: \$ \_\_\_\_\_ Total Enclosed: \$ \_\_\_\_\_

Exempt 

**K. Refund Policy**

- If an application is modified, withdrawn or denied after technical review has commenced, all fees are retained.
- If an application is withdrawn prior to administrative review, all fees will be refunded.
- If an application is withdrawn after administrative review but prior to commencement of technical review, deemed administratively incomplete and returned to the applicant, or determined that a permit is not required; administrative fees are retained, and permit application review fees will be refunded.

**By checking this box, the applicant certifies that they have read and understands the refund policy**

**L. Signature** (Original Signature Required):

I certify under penalty of law that this document and all attachments were prepared at my request or under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person who manages the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. I recognize that by signing this application, I am giving consent for the Commissioner of the Department, or a duly authorized representative, at reasonable times and upon presentation of credentials, to enter upon and inspect the subject property to verify information in and process the Section 401 application.

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Print Name: \_\_\_\_\_

Signor Contact Phone: \_\_\_\_\_ Signor Contact email: \_\_\_\_\_

**Follow the Transfer of State Funds instructions memo to submit the application fee, or Submit this form and application fee to:**

**State of Vermont - Vermont Department of Environmental Conservation Watershed Management Division  
1 National Life Drive, Davis 3  
Montpelier, VT 05620-3522**

Direct all correspondence or questions to 401 Certification at: [ANR.WSMD401@vermont.gov](mailto:ANR.WSMD401@vermont.gov).

For additional information visit: <https://dec.vermont.gov/watershed>



**Lamoille Valley Rail Trail - Rehabilitation Project - STP LVRT (11) (12) (13)**

Vermont Agency of Transportation

**401 Water Quality Certification Application - Document Tracking Table**

Prepared by VHB

April 13, 2021

Revised: May 25, 2021

<b>Appendix</b>	<b>Document Title</b>	<b>Preparer</b>	<b>Date of Document with Original Filing (4/13/2021)</b>	<b>Revised Filing Date (5-25-2021)</b>
<b>Appendix IA</b>	Appendix IA_LVRT 401_404 Stream and Wetland Impacts	VHB	3/17/2021	5/19/2021
	Appendix IA_LVRT 401_VWP Class II Wetland and Buffer Impacts	VHB	2/18/2021	5/6/2021
<b>Appendix IB</b>	Appendix IB_LVRT 401_Project Coordinates	VHB	3/31/2021	5/20/2021
<b>Appendix IC</b>	Appendix IC_LVRT 401_Location Maps	VHB	2/12/2021	n/a
<b>Appendix ID</b>	Appendix ID_LVRT 401_Project Narrative	VHB	3/31/2021	n/a
<b>Appendix IE</b>	Appendix IE_LVRT 401_Soil K Factor	VHB	4/7/2021	n/a
<b>Appendix IF</b>	Appendix IF_LVRT 401_Hydrologic Soil Groups	VHB	4/7/2021	n/a
<b>Appendix IG</b>	Appendix IG_LVRT 401_EPSC Plans	VHB	3/23/2021	5/11/2021
<b>Appendix IH</b>	Appendix IH_LVRT 401_Perennial Stream Impact List	VHB	4/1/2021	n/a
<b>Appendix II</b>	Appendix II_LVRT 401_Geomorphic Condition	VHB	4/1/2021	n/a
<b>Appendix IJ</b>	Appendix IJ_LVRT 401_Physical, Biological, Chemical Stream Conditions	VHB	11/25/2012	5/21/2021
<b>Appendix IK</b>	Appendix IK_LVRT 401_Findings of Facts 7C1321	VHB	4/1/2021	n/a
<b>Appendix IL</b>	Appendix IL_LVRT 401_2020 Natural Resource Memos	VHB	2020/2021	n/a
<b>Appendix IM</b>	Appendix IM_LVRT 401_Potential Impacts to Recreation	VHB	n/a	5/25/2021





May 25, 2021

Ref: 57294.11, 57294.12, and 57294.13

Ms. Bethany Sargent  
Vermont Department of Environmental Conservation – Watershed Management Division  
1 National Life Drive, Main 2  
Montpelier, VT 05620-3522

Re: Vermont Agency of Transportation  
Lamoille Valley Rail Trail Project – VTrans Project STP - LVRT(11): Cambridge to Sheldon; LVRT(12):  
Hardwick to Morrisville; LVRT(13): Danville to Hardwick  
Revised Individual Section 401 Water Quality Certification Request: Response to Comments

Dear Bethany:

On behalf of Vermont Agency of Transportation (“VTrans” “Applicant” or “Project proponent”), VHB submitted an application for an Individual Section 401 Water Quality Certification (“WQC” or “401”) on April 13, 2021, which is triggered by a Section 404 Individual Permit application to the US Army Corps of Engineers, for the purpose of conducting work within Waters of the U.S. and State, associated with the proposed Lamoille Valley Rail Trail (“LVRT”) rehabilitation project (“Project”). VHB is now providing a complete, revised WQC application in response to comments and questions provided in a letter sent to the Applicant and VHB, via electronic mail message on May 19, 2021, and our phone discussion on May 21, 2021. For ease of review, your comments are contained below as bold italicized text, followed by VHB’s responses.

***• F.4. Include starting and ending latitudes and longitudes for each trail segment – LVRT(11), LVRT(12), and LVRT(13).***

Starting and ending latitude and longitude coordinates for each trail section have been added to the revised Appendix IB.

***• F.17. Add Joe’s Pond in West Danville as a receiving water. Review of the EPSC plans show construction within Joe’s Pond watershed and within 250 feet of the shore.***

Joe’s Pond was added to F.17 to acknowledge this waterbody as a Project receiving water.



• **F.18. The Watershed Area ROW total acres do not add up to the ROW total in F.11.**

The ROW, LOD, and watershed totals were updated so that the acreage values in F.18 and F.11 align.

• **F.18. The % Area Disturbed was calculated incorrectly – 0.00012%. The % Area Disturbed is 0.012.**

The % Area Disturbed calculation error has been corrected.

• **H. and Appendix IA. Update Wetland Resources information per revised Wetlands Individual Permit Application.**

Appendix IA has been updated to reflect Class II wetland and buffer impact revisions under the Vermont Wetland Rules.

Since the original submittal, the Project has undergone some changes to the limit of disturbance (“LOD”) alignment, however the Project purpose and need remain unchanged and will involve repair and refurbishment of the remaining segments of the former Lamoille Valley Railroad (“LVRR”) to complete its conversion to the LVRT.

The following environmental permit applications under review are being amended to reflect the impact change subsequent to the LOD change:

Clean Water Act (“CWA”) Section 404 Permit NAE-2008-03594, U.S. Army Corps of Engineers (Vermont Office), submitted March 19, 2021, Revised 5-25-2021;

- Updated for increased stream and wetland impact area from LOD adjustments to the size of the temporary work/staging areas and the addition of Culvert 86K and Cattlepass 41E.

Vermont Individual Wetland Permit 2008-402, DEC Wetlands Program, submitted February 18, 2021, Revised May 11, 2021 to include:

- Updated using the bridge specific LODs, extension of the 50-foot Class II wetland buffer across the trail, and increased impacts for Pause Place locations.

• **H.2.c. Please confirm the proposed Stream Area Impacts are accurate.**

See response above. Appendix IA has been updated to reflect stream and wetland impact revisions under Section 404.

• **H.3.a. Add Joe’s Pond in West Danville to Appendix IJ.**

Joe’s Pond was added to updated Appendix IJ.

• **H.4.a. Fisheries resources within the waters that the project impacts, not fishing access areas, must be described. Please coordinate with the Department of Fish and Wildlife regarding fisheries resources.**

See revised 401 application for descriptions of coordination with the Department of Fish and Wildlife staff and descriptions of fisheries resources within the subject waters.

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• **H.4.b. and c. Include the remaining portions of SECTION 6086 (a)(8)(A) in Appendix IK re: Necessary Wildlife Habitat.**

The entire *Facts of Findings* has been provided in Appendix IK to include findings and conclusions related to SECTION 6086 (a)(8)(A) *Necessary Wildlife Habitat*. See pages 50, and 57-58.

• **Document Tracker. Appendix IJ and Appendix IK are mislabeled. Appendix IJ is the Physical, Biological, and Chemical Water Quality Conditions.**

Labels have been corrected in the updated Document Tracker.

• **Appendix IJ. Lyford Pond does not need to be listed as the Project is not within the Lyford Pond watershed. The Project is within the Joe's Pond watershed.**

Lyford Pond has been removed from revised Appendix IJ.

• **Describe any potential impacts to recreation, both land-based and water-based, due to construction.**

Please see narrative description of potential impacts to recreational use of waters during and following Project construction (new Appendix IM).

Thank you for your time and attention in this matter. Please do not hesitate to contact us if you have any questions, comments, or require further information regarding the revised WQC certification request or supporting materials.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Patti B. Kallfelz-Werts', with a large, sweeping flourish at the end.

Patti B. Kallfelz-Werts  
Environmental Scientist

A handwritten signature in blue ink, appearing to read 'Allison L. Slaney', with a large, sweeping flourish at the end.

Allison L. Slaney  
Environmental Scientist

cc (electronic copies only):

Pete Laflamme, Director, Watershed Management Division  
Billy Coster, Director of Planning, ANR  
Amanda Sayles, Project Engineer, USACE (Cover letter only)  
Glenn Gingras, Senior Biologist, VTrans  
Jeff Ramsey, Environmental Permitting Coordinator, VTrans  
Ken Brown, VAST LVRT Project Manager  
Joel Perrigo, VTrans Project Manager  
Julie Follensbee, DEC District Wetlands Ecologist (cover letter only)

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List of Revised/New Appendices:

- Appendix IA\_LVRT 401 404 Impact Summary
- Appendix IA\_LVRT 401 VWP Impact Summary
- Appendix IB\_LVRT 401 Project Coordinates
- Appendix IG\_LVRT 401 EPSC Plans
- Appendix IJ\_LVRT 401 Physical Biological Chemical Conditions
- Appendix IK\_LVRT 401 Findings of Facts (Act 250 #7C1321)
- Appendix IM\_LVRT 401 Potential Impacts to Recreation (new)

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