FY17 Vermont Better Roads Grant Application

Please complete this page ONCE and return with your Grant Category Application(s)

Town/Organization: PAWLET Contact Person(s): Timothy Hughes-Muse

Address: PO BOX 128 PAWLET VT 05761
Street Address *Town* *Zip*

Email: pawletselectbrd@vermontel.ne Phone: ( ) 325 - 3099

DUNS #: 035883610 Fiscal Year End Month (MM): 06

Accounting System: ☐ Automated ☐ Manual ☐ Combination

Please use the suggested documentation checklist below to ensure that all of the relevant items regarding your application have been included.

- ☐ Grant application cover sheet (Only submit one)
- ☐ Grant application form (One per category/project)
- ☐ Itemized Cost estimate for labor, equipment, and materials (see enclosed Cost Estimate Worksheet). If applicable, please break down funding by source (i.e. different grant sources)
- ☐ Project Location Map (please show location of affected water)
- ☐ Sketch of proposed erosion control measures or other management practices, including distances in feet
  - Also show approximate location of town/other right-of-way and/or property lines
- ☐ Photo(s) of the project area
- ☐ Letters of Support (RPC, VTrans District Technical Staff, ANR Rivers and Streams Engineers, etc.)
- ☐ If Category C River/Road Conflict or Category D River/Stream Structure or Culvert, you must attach ANR/ACOE consultation

Vermont Better Roads Grant Program Application

Please complete one application per category and/or project you are applying for. You may make copies of the application for multiple applications per category and/or multiple categories.

Please check the Category you are applying for:

- [ ] B. Correction of a Road Related Erosion Problem and/or Stormwater Mitigation Retrofit for both gravel and paved roads
- [ ] C. Correction of a Stream Bank or Slope Related Problem
- [x] D. Structure/culvert upgrades

Town/Organization: PAWLET

Project Name: Rt 153 Culvert Replacement

Road Name: RT 153 Th# 1 TH #:_____ Structure # (if applicable):_____

Road Type: (Paved) or Unpaved (circle one) Curbed or (Uncurbed) (circle one)

Class 1 (Class 2) Class 3 Class 4 (circle one)

Watershed: Mettowee River

Please provide a thorough description of the problem (ex. Roadway has steep slope with no ditch which is causing roadway erosion):

Very deep and steep bank along road causes asphalt to sag near shoulder. Culvert outlet creating gullying above wetland causing sedimentation of wetland.

Description of Project and how you plan to complete the work (ex. Stone line 500' of ditch by reshaping ditch and stone lining, working from the top of the project down to the bottom):

Eliminate the use of one undersized culvert crossing Rt 153. Install a 24" culvert uphill of existing culvert. This will eliminate the use of another undersized private entrance culvert in the roadside ditch. The downstream end of the culvert will be an armored splash pool. Fill in roadside ditch below culvert with shot rock making it safer for vehicle traffic and provide road bed stability.

Expected Effects (+ & -) on water quality (ex. Erosion will be eliminated by placing the stone ditch):

Reduce sediment and nutrient load in Mettowee River.

Eliminate gullying by installing an armored splash pool.

Distance from end of project to nearest water (stream, lake, or stormwater system that outlets directly to water). Please circle one: 0-50' 50-250' 250'+

Progress to Date:
The town has designed and planned the project and has developed an estimate of costs.

Is there an emergency reason this project must be completed quickly? If yes, please explain:
No.

Has this project been identified through a municipal road inventory, capital budget plan, tactical basin plan, culvert inventory, or other management plan? If yes, please list which.

Yes: Capital budget plan to be complete this summer. No

Please list any professionals you may have contacted for assistance with this project (ANR River Management Engineer, Army Corps of Engineers, VTrans District Technical staff, Basin Planner etc.):
Josh Carvajal, ANR
Hilary Solomon, Poultney-Mettowee Natural Resources Conservation District

Is the project located in the town "Right of Way?" Yes, No, Both (if "Both" please explain further).
Yes

Will the town road crew complete this work? Yes, No, Some (if "some" please explain further).
Yes

Describe how the grant funds will be spent and/or attach a project budget: Please see attached budget.

How do you plan to meet the required 20% match on this grant?: Pawlet will provide labor, equipment, and in-kind materials.

Requested Grant Amount ($20,000 max Category B, $40,000 max Categories C & D): $13,116.20

Estimated Total Project Cost (including 20% local match): $16,395.25

Estimated Completion Date: August 2016

REQUIRED ATTACHMENTS:

- ☐ Itemized Cost Estimate (labor, equipment, materials)
  (For assistance, call Better Backroads at 802-828-4585)
- ☐ Project Location Map
  (Please show location of affected water; 1:12,000 USGS map, if possible)
- ☐ Sketch of proposed erosion control measures, including:
  - ☐ Distances (ft.)
  - ☐ Estimate of waste & borrow quantities
  - ☐ Approx. location of town/other right-of-way and/or property lines
- ☐ Photo(s) of the project area.
- ☐ Agreement for Entry and/or Deed of Easement (if project is outside Town ROW).
- ☐ If project involves stream or river/road conflict, include documentation of consultation with a River Management Engineer.
- ☐ Other appropriate supporting documents.

By signing this application I certify that all the information provided is accurate to the best of my knowledge. We will comply with all the requirements of the grant including making our books available for audit if required.

SIGNATURE OF APPLICANT: (Must be Town Administrator/Manager or Select Board Chair)

Name: Deborah Boucher Title: Selectboard chair

Cost Estimate Worksheet

Town and Road Name: Pawlet VT Rte 153 TH#1 **Project Name:** Rt 153 culvert replacement

Labor	Rate	# Hours	Total (Rate x Hours)
Highway Crew	$26.00/ Hr	160	$4,160.00
		Labor Total	$4,160.00

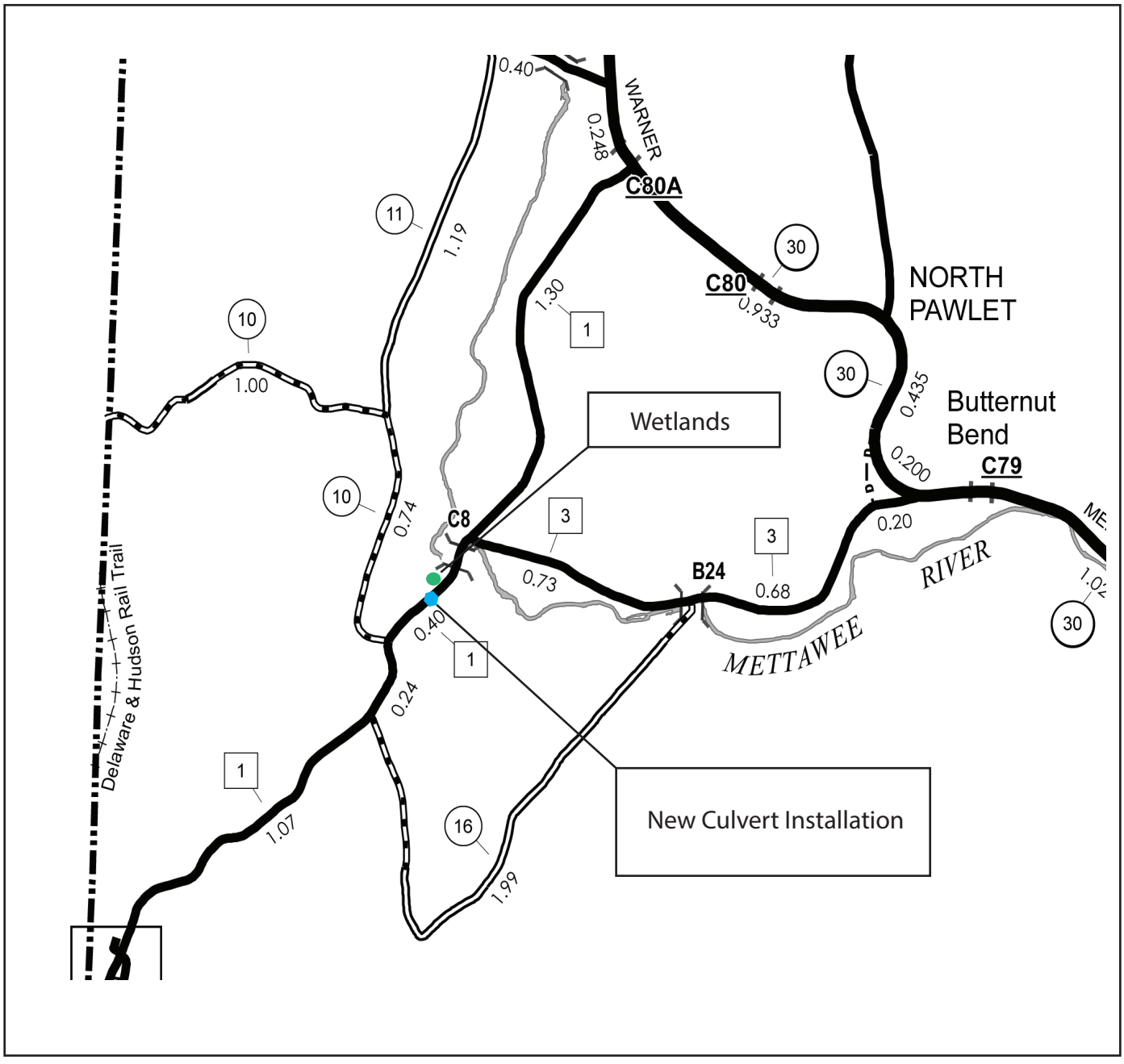
Equipment	Rate	# Hours	Total (Rate x Hours)
Excavator 28,000 lb - 1 week rental	$170	4	$680.00
Tandem Truck 18 cubic Yard	$75	40	$3,000.00
Town Owned Backhoe	$45	40	$1,800.00
Asphalt Cutting tool	$50	8	$400.00
Tamper rental	$50	20	$1,000.00
		Equipment Total	$6,880.00

Materials	Rate	Amount	Total (Rate x Amount)
25' x 24" HDPE culvert	$15.33/ ft	25'	$383.25
Bitumous Asphalt	$80/ ton	24 Tons	$1,920.00
Bank Run Gravel	$5.25/ cu yard	448 cu yds	$2,352.00
Shot Rock	$4.00/ cu yard	50 cu yds	$200.00
Stone Fill	$10.00/ cu yard	50 cy yard	$500.00
		Materials Total	$5355.25

Miscellaneous	Rate	Amount	Total (Rate x Hours)
		Miscellaneous Total	

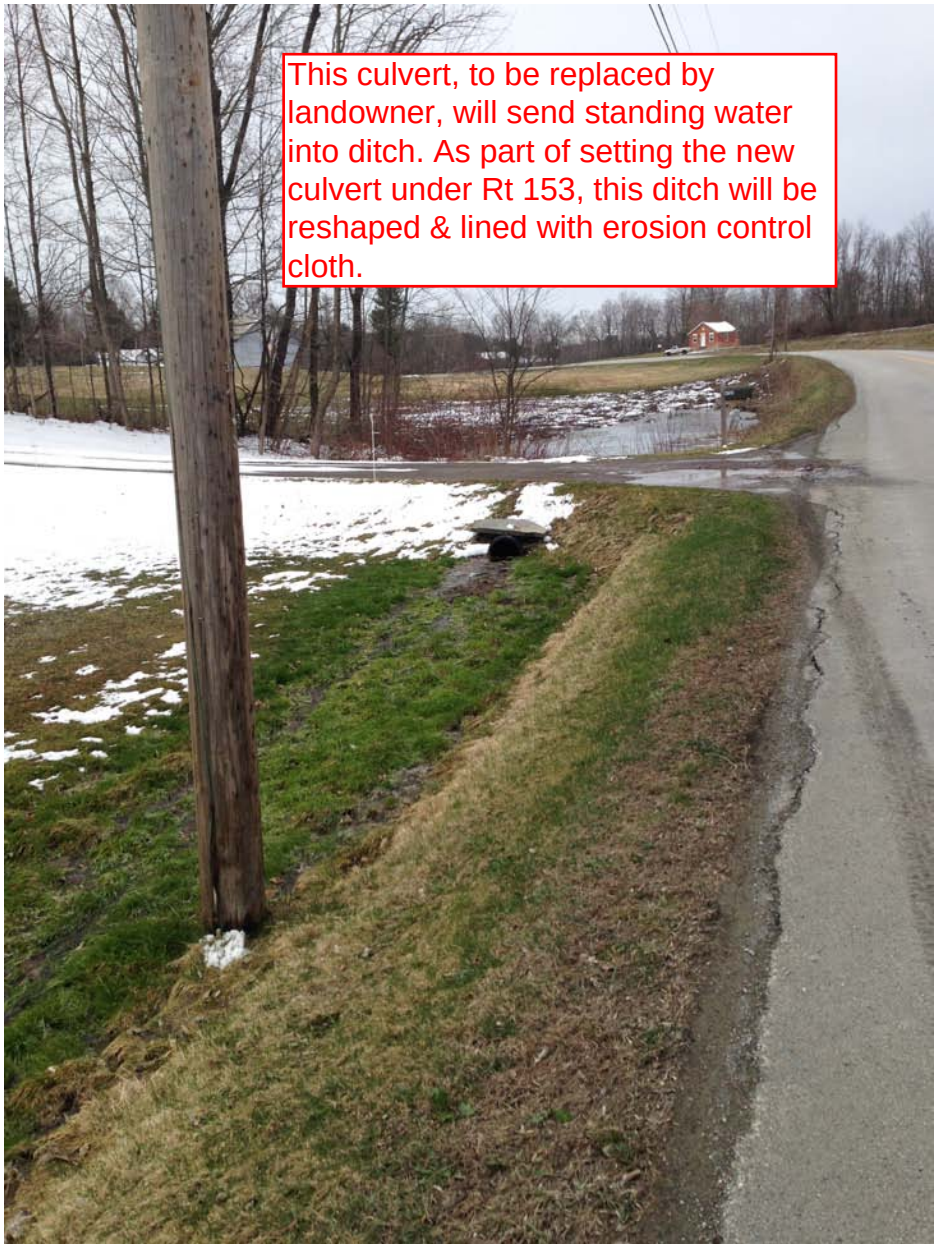
Grand Total	$16,395.25
Match	$3,279.05

Pawlet Rte 153 Culvert Replacement Project



This ditch would be filled in with shot rock, stabilizing road shoulder and creating a stone-lined ditch. The far end of this ditch is excessively deep and the shoulder is too narrow for adequate road stability.

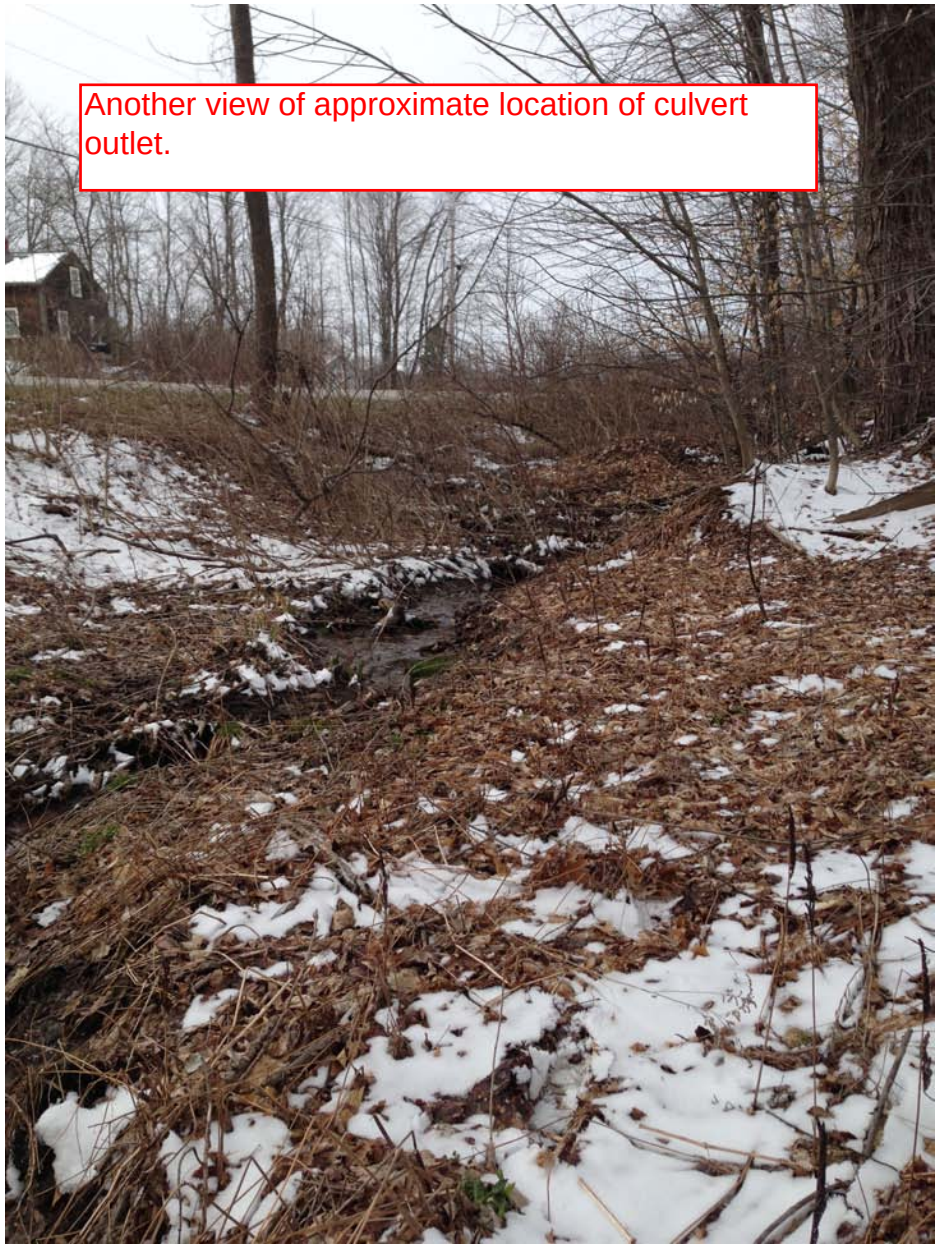

This culvert, under private drive is to be removed.

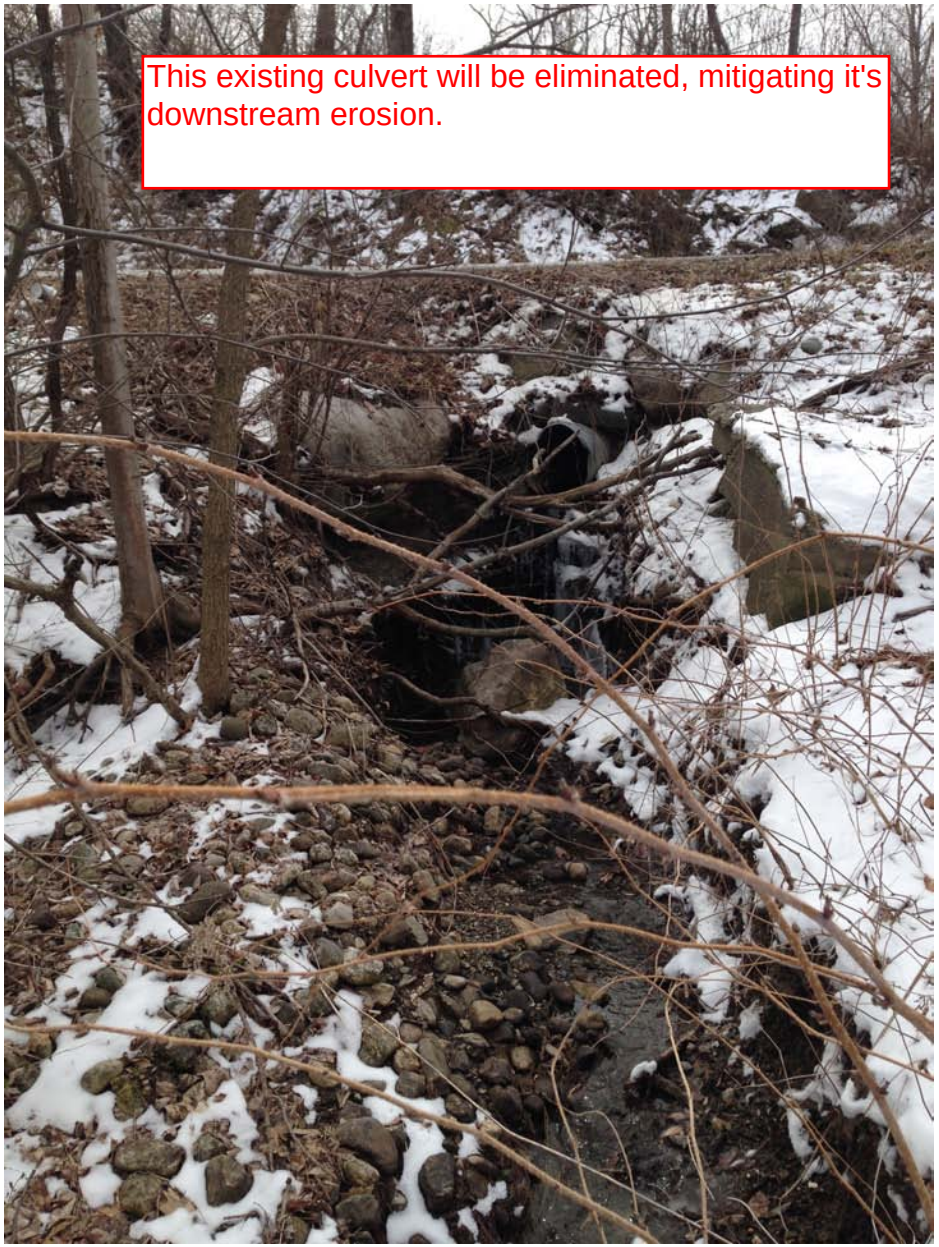

This culvert, to be replaced by landowner, will send standing water into ditch. As part of setting the new culvert under Rt 153, this ditch will be reshaped & lined with erosion control cloth.

These photos detail the pooled water that will be traveling into this new culvert.


Location of new culvert, crossing Rte 153


Approximate area where culvert will drain. An armored splash pool will be installed here to catch sediment and prevent erosion.


Another view of approximate location of culvert outlet.


This existing culvert will be eliminated, mitigating it's downstream erosion.

Photos illustrate the erosion issues at the outlet of the culvert, which deposits sediment into the adjacent wetland.

Downstream of culvert outlet there are bank instability issues

Close-up view of erosion on outlet of culvert

Below existing culvert, the roadside ditch is of adequate size while not being excessive.

This ditch will be filled with shot rock, stabilizing road. The resulting ditch will be a stone-lined ditch that is not as deep as current one, safer for vehicles and improves road bed stability. Post is marking the start of the existing culvert that will be eliminated.

From: **Carvajal, Joshua** Joshua.Carvajal@vermont.gov
Subject: Re: Pawlet_Warren Switch Road and RT 153
Date: April 5, 2016 at 7:09 AM
To: Timothy Hughes-Muse pawletselectbrd@vermontel.net
Cc: PMNRCD pmnrcd@gmail.com, Keith Mason pawletroads@vermontel.net

CJ

From: Carvajal, Joshua
Sent: Tuesday, April 5, 2016 7:07 AM
To: Timothy Hughes-Muse
Cc: PMNRCD; Keith Mason
Subject: Pawlet_Warren Switch Road and RT 153

Tim,

The proposed improvements to roadside swales along this section of Warren Switch Road and RT 153 is not jurisdictional under the Stream Alteration General Permit (SAGP) because the streams are not be perennial.

We also discussed potential improvement outside the Town ROW to stabilize eroding swales that appear to be wetlands. I would suggest contacting the Army Corps of Engineers and the VT Wetland Program to discuss this your project and get a better understanding of the regulatory requirements associated with wetlands.

Please let me know if you need additional assistance on these projects.

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Josh Carvajal, P.E. CFM
Rivers Program
Agency of Natural Resources
Department of Environmental Conservation

cell: (802) 490-6163

www.watershedmanagement.vt.gov/rivers.htm
floodready.vermont.gov

Our email addresses have changed (@vermont.gov)
NEW: joshua.carvajal@vermont.gov
Please update your address book!