



# FY17 Vermont Better Roads Grant Application

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

Town/Organization: \_\_\_\_\_ Contact Person(s): \_\_\_\_\_

Address: \_\_\_\_\_

*Street Address*

*Town*

*Zip*

Email: \_\_\_\_\_ Phone: ( ) \_\_\_\_\_ - \_\_\_\_\_

DUNS #: \_\_\_\_\_ Fiscal Year End Month (MM): \_\_\_\_\_

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
- D. Structure/culvert upgrades

Town/Organization: \_\_\_\_\_

Project Name: \_\_\_\_\_

Road Name: \_\_\_\_\_ 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: \_\_\_\_\_

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

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):

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



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:

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Is there an emergency reason this project must be completed quickly? If yes, please explain:

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: \_\_\_\_\_

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.):

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

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



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

How do you plan to meet the required 20% match on this grant?:

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

Estimated Total Project Cost (including 20% local match): \_\_\_\_\_

Estimated Completion Date: \_\_\_\_\_

**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: \_\_\_\_\_ Title: \_\_\_\_\_

**Priority # 2-Better Backroads Category B 2016 Grant Application:**

**Project Name:**

Taylor, Arthur John, & Head of Pond final phase

**Description of Problem:**

This grant submission is the final phase of a four phase project. This submission is accompanying a Priority # 1 submission which, if approved, will complete phases two and three of the overall project. This fourth and final phase involves installing enhancements that are necessary to prevent marginal areas from eroding during High Run-off Events. Also, until these enhancements are completed, minor sediment flows will be pushed into previous completed project areas contaminating stone-linings at culverts and eventually reaching streams. There is also one small culvert in this fourth phase that is defective and has plugged easily in past High Run-off events. This culvert accepts run-off from Taylor Road (a steep hill that feeds down to this culvert). A recent new culvert on Taylor will prevent stream waters from topping the road and reaching this culvert but the steep incline will continue to send road run-off water down to the culvert at high velocities. Currently, the ditches are made up of loose sandy soils and are not well defined. Under current conditions, there is a high probability that eroding ditch soils will continue to plug this culvert over time. It has been difficult, due to sediment infiltration, to maintain a sump area at this culvert. Any erosion at this culvert will find its way to the stream via the roadside ditch on Head of the Pond Road (Please refer to pictures below and the drawing on the next page for further clarification). This culvert's outflow proceeds 500 ft. downgrade directly to the stream.

**See photos of previous storms below.** The **Red** area shows where culvert will be replaced. The **Blue** circle in the background shows where culvert outflow ditch empties into stream. Second picture shows water turning to stream.

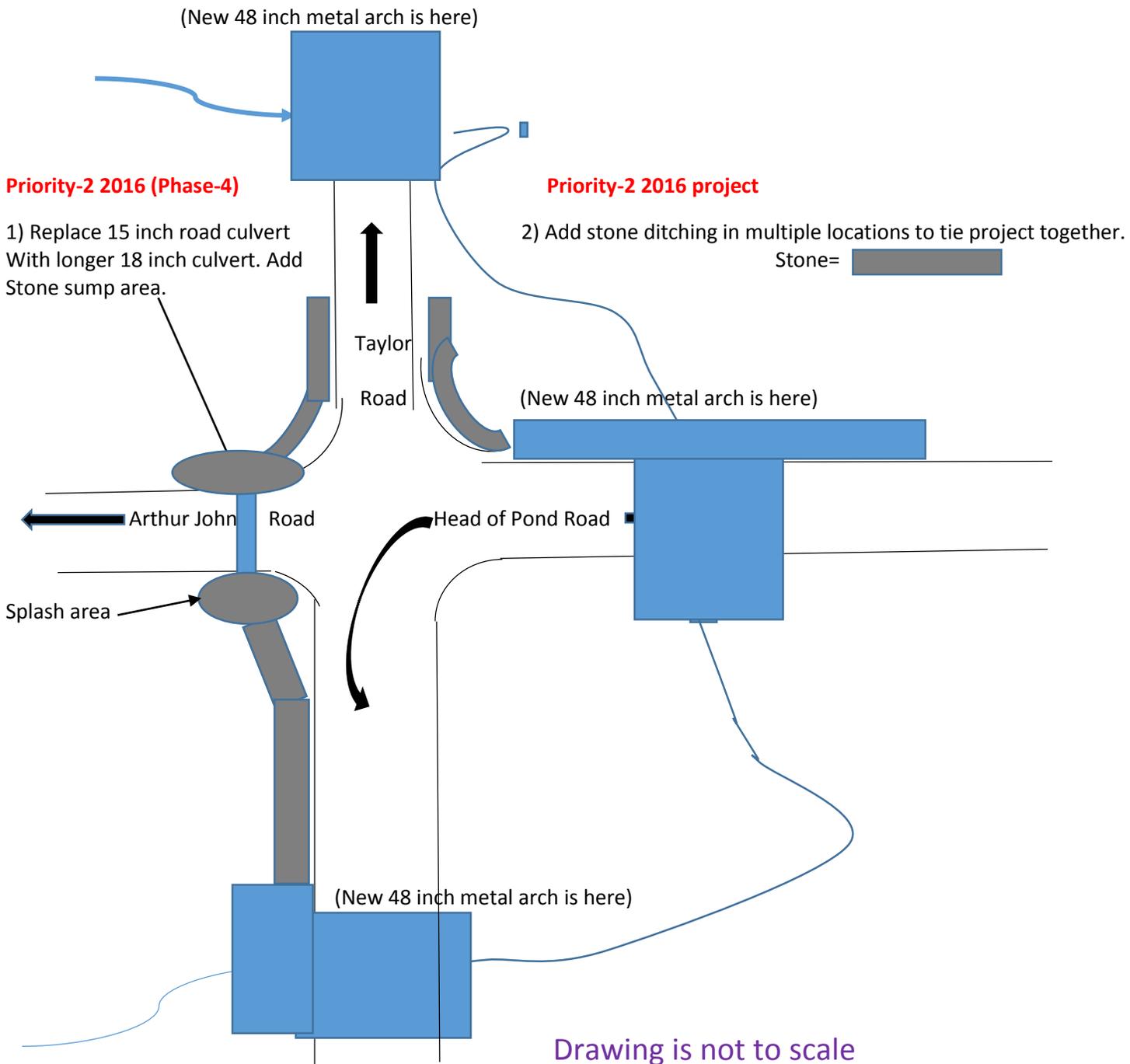


The **Blue** circle is showing where roadside ditch turns and enters into the stream.

PROJECT DRAWING

Priority #2 Project 2016

Replace small culvert and connect stone lined ditching. The areas being stone lined all have a probability of erosion during High Run-off Events.



**Description of Project:**

The objective of this project is to complete erosion prevention enhancements that will stop sediment from reaching newly installed culverts creating sediment back-up that will clog stone lining at new culvert inverts. This project will extend stone armor on all ditches feeding new culvert invert areas. **In addition**, one culvert is being improved to prevent road erosion.

- 1) Culvert Upgrade-One culvert is upsized and the installation process is improved to make this culvert function better. The culvert invert is extended away from a vertical drop at the edge of the travel lane outward to the toe of the shoulder slope. A stone sump area will be established at the culvert's invert and a splash area will be installed at the outflow.
- 2) Stone Ditches-All recent new culverts on the project will have stone armored inlet ditches extended as needed. This will involve extending stone that was placed during the Culvert installations. This will occur (per drawing submitted) in areas where ditch erosion is most prevalent. Approximately 700 total feet of stone ditching will be added.

**Expected Effect on Water Quality:**

This final enhancement project is part of a larger in-stream project. Site visits along with statements from town staff indicate the stream has some flow throughout the year and every year. However, the stream does not appear to be mapped or named. The ANR mapping has only some segments showing on the maps. Site visits indicate this may be a small branch of Goupee Brook. It branches off at an elevation just above the project area and rejoins the main stream below the project area. Goupee brook eventually joins with the Nulhegan River. As seen in the photos supplied in the 2015 and 2016 BBR grant applications, the Erosion Event that has occurred during high run-off is very significant and sends vast amounts of sediment into this branch stream. This is the final phase to insure that no significant erosion problems will remain in this project area.

**Distance from Water:**

All ditching has connectivity to the stream that varies in distance from the stream. For the culvert being replaced, the culvert outflow goes directly to the stream via a roadside ditch (500 feet from culvert to stream). Some other ditching is less than 75 feet from the stream.

**Progress to Date:**

This application is part of a four phase project with phase one being completed last year. The additional funding now being offered by Better Backroads has enabled the town to combine phases two and three into a 2016 **Priority # 1** application. This final phase (**Priority # 2**) will be needed to tie stone ditches together and replace a smaller culvert on Arthur John Road which intersects with Taylor and Head of Pond Roads. If both priority 1 & 2 are approved in 2016, the whole project will be completed.

**Emergency Reason for doing project now:**

There is not an emergency reason for completing phase-4 immediately. However, it is a measure that protects over thirty five thousand in new investments in this overall project. It would not be prudent to ignore this work for an extended time period.

**Culvert and Road Inventory (BBR CAT-A GRANT):**

The Town of Brighton had a CAT-A Better Backroads Road and Culvert Inventory performed in 2014. This four phase project, due to the severity of road damage and quantity of sediment deposited in the stream, was selected as the Highest Priority among all selected projects. This is the fourth and final phase of the project.

**Project Consultation:**

The Town of Brighton has utilized multiple state resources for this project including ANR-Rivers & Streams, VTrans District technical assistance, and consistently uses the Regional Planning for general advice. The town utilizes the services of Municipal Public Works Consulting to assist with Better Backroads Inventories and Projects. This consulting firm works diligently with the Better Backroads Program, Regional Planners, and ANR to maintain program criteria updates and to be knowledgeable on providing the proper technical advice.

**Work In the Town Right-of-Way:**

All work for this project will be easily carried out within the town right of way.

**Will the town Road Crew Complete this Work:**

This work will be performed primarily by a sub-contractor with some assistance from the Brighton Highway Department. The Contractor will be responsible for carrying out items described in this application but the town will be available for any extra assistance needed and to provide needed oversight.

**Project Budget/Estimate:**

Culvert # 1:

**Cost Estimate for Equipment, Materials, and Labor:**

<u>EQUIPMENT/LABOR</u>	<u>RATE PER HOUR</u>	<u>TOTAL HOURS</u>	<u>COST</u>
Excavator	115.00	15 hours	\$ 1,725.00
Tandem Truck	85.00	10 hours	850.00
Labor	16.00	10 hours	<u>160.00</u>
Equipment and Labor Total=			\$ 2,735.00

<u>MATERIAL</u>	<u>UNIT COST</u>	<u>TOTAL UNITS</u>	<u>COST</u>
18 inch HI-P plastic culvert	15.00 per ft.	50-feet	\$ 750.00
8 inch minus stone	12.00 per yd.	170 yards	2,040.00
Seed-mulch-matting			125.00
Miscellaneous			<u>100.00</u>
<u>Materials Total=</u>			\$ 3,015.00

Culvert # 1 Total Estimated Project Cost= \$ 5,750.00

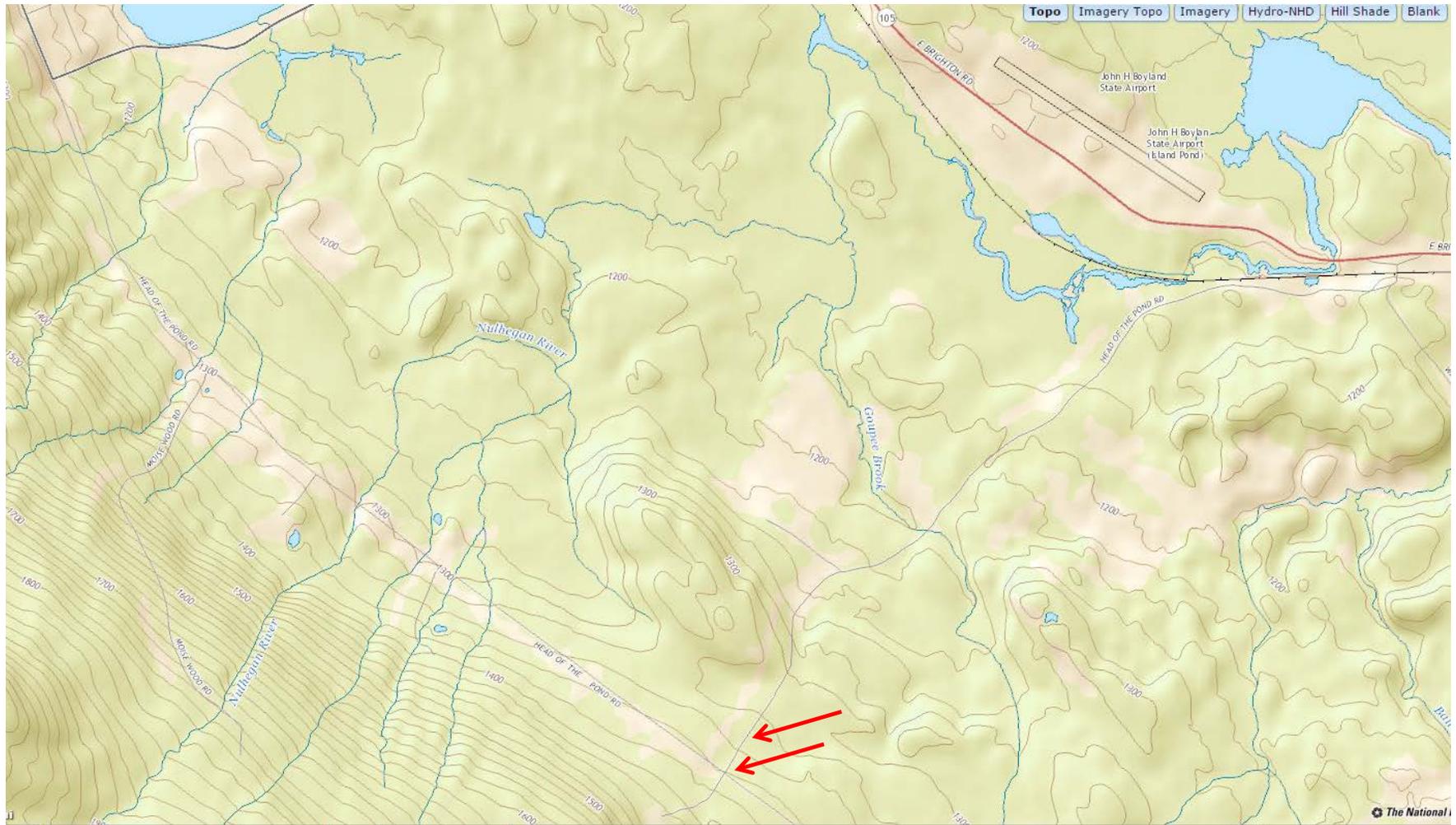
Grant Request= 4,600.00

Local Match= 1,150.00

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This document was prepared by David Antone, MPW consulting, for the Town of Brighton Vermont.

**Contact Information:**

David Antone  
802-355-8215  
[roadtech005@gmail.com](mailto:roadtech005@gmail.com)





**NVDA**  
*Northeastern Vermont  
Development Association*

April 21, 2016

Alan May  
Better Roads Coordinator  
Municipal Assistance Bureau  
Highway Division  
1 National Life Drive  
Montpelier, VT 05633

*RE: Category B Back Roads Application for Brighton*

Dear Alan,

I would like to express my support for the Category B Applications for Ditching and Culvert Improvements on Head of the Pond Road and Arthur John Road in the Town of Brighton. This project is part of an ongoing effort by the town to improve the drainage features along this area of town with the ultimate benefit of improving water quality. The town has worked with David Antone as a consultant to develop this project and I strongly support this application. Please let me know if you have questions or if I can be of further assistance.

Sincerely,

Doug

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**Douglas C. Morton**  
Senior Transportation Planner  
Northeastern Vermont Development Association  
P.O. Box 630  
36 Eastern Ave  
St. Johnsbury VT 05819  
Ph [\(802\) 748-1221](tel:8027481221)  
Fx [\(802\) 748-1223](tel:8027481223)

[dmorton@nvda.net](mailto:dmorton@nvda.net)

PO Box 630 36 Eastern Avenue, Suite 1 St. Johnsbury, Vermont 05819-0630 802 748-5181 Fax: 802 748-1223

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