



Vermont Better Roads Grant Program



Cover Sheet

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

Town/Organization: Town of Panton

Primary Contact Person (Responsible for Signing Grant Agreement): Maggie McCormick
Title: Town Clerk/Treasurer

Address: 3176 Jersey Street, Panton, VT 05491

Street Address

Town

Zip

Primary Contact Person Email: clerk-treasurer@pantonvt.us Phone: (802) 475 - 2333

SAM unique ID #: FWJQCF26HR58 Fiscal Year End Month (MM): 06

Town Clerk / Admin email: Maggie McCormick clerk-treasurer@pantonvt.us

Road Foreman Name: Rick Cloutier Road Foreman Email: rcloutier@pantonvt.us



Vermont Better Roads Grant Program



Please provide the Road Segment ID (RSID) for your project. If several, please list all. In addition to the RSID please indicate what the resulting rating of each segment before construction as well as after construction in accordance with the MRGP.* (i.e., Fully Meets Standard, Partially Meets, Does Not Meet) For assistance, please contact Better Roads Staff (802)828-4585.

RSID	Hydrologically Connected?		Pre-construction MRGP Conformance			Post-construction MRGP Conformance		
	Yes	No	Fully Meets	Partially Meets	Does Not Meet	Fully Meets	Partially Meets	Does Not Meet
	X				X	X		

*In order to "Fully Meet" the standards the road segment must have proper crown, removal of shoulder berms, proper ditching, proper conveyance and no erosion present at culvert inlets and outlets.



Vermont Better Roads Grant Program



Environmental Concerns:

All projects require a review of potential impacts by our environmental team. To expedite the review process, please check the boxes below that describe existing structures/conditions to be replaced/maintained (if any) and the project description that applies (if any).

Existing Structures:	
<input checked="" type="checkbox"/> Steel/Plastic Culvert	<input type="checkbox"/> Concrete Box Culvert
<input type="checkbox"/> Stone Culvert – Take pictures	<input type="checkbox"/> Concrete Bridge
<input checked="" type="checkbox"/> Ditch	<input type="checkbox"/> Rolled Beam/Plate Girder Bridge
<input type="checkbox"/> Foundation remains, mill ruins, stone walls, other – Take pictures	<input type="checkbox"/> Stone abutments or piers – Take pictures
<input type="checkbox"/> Buildings within 300 feet of work - Take pictures	
Project Description:	
<input type="checkbox"/> New ditches will be established	<input checked="" type="checkbox"/> All work will be completed from the existing road or shoulder
<input type="checkbox"/> Reestablishing existing ditches only	<input type="checkbox"/> There will be excavation within 300 feet or a river or stream – Take pictures
<input checked="" type="checkbox"/> The structure is being replaced on existing location/alignment	<input type="checkbox"/> Road reclaiming, reconstruction, or widening
<input type="checkbox"/> Excavation within a floodplain – Take pictures	<input type="checkbox"/> Temporary off-road access is required
<input type="checkbox"/> Tree cutting/clearing – Take pictures	<input type="checkbox"/> The roadway will be realigned

Please describe the project and how it will create a positive water quality benefit (ex. Reshape 500' of ditch and line with 12 inch minus stone, to prevent sediment from entering the Lamoille River at the bottom of the hill):

Restore proper stormwater drainage, allow free flow

Please list any professionals or partners that assisted with planning this project (ANR River Management Engineer, Army Corps of Engineers, VTrans staff, Basin Planner, RPC staff, etc.):

Jaron Borg, River Management Engineer, and Zapata Courage, District Wetlands Ecologist,

State of VT, Environmental Conservation, Jim Cota and Ashley Kane, District 5, Al May, Better Back

Roads, Mike Winslow, ACRPC

Is the project located in the town "Right of Way? (select one) Yes No Both

Please be aware, Municipalities are required to have an Agreement for Entry & Liability Release for any impacted properties (prior to the start of construction.) **None**



Vermont Better Roads Grant Program



Budget:

Please attach a project budget and confirm below that is attached:

Project budget IS attached

Are you applying to other grant programs to help fund this project? If so, what programs? Please note that Better Roads requires a 20% local match and Better Roads funding may not be used as match for other state or federally funded programs.

Requested Grant Amount:	\$ 60000.00	Requested Grant Amount Max: \$20,000 Category B \$40,000 Category C \$60,000 Category D
+		
Local Match:	\$ 12000.00	
=		
Total Project Cost:	\$ 72000.00	

See page 6 for more information on calculating match

Estimated Completion Date: 11/01/2024

Type text here

REQUIRED ATTACHMENTS:

Please use the documentation checklist below to ensure that all of the relevant items regarding your application have been included. **It is preferred that your application is a single PDF file.**

- Grant application cover sheet
- Grant application form, including chart with RSID and MRGP compliance before and after project completion
- 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).
- Detailed Project Location Map
- Sketch of proposed project and 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 and limits of work
- Photos must be color and clear to see.**
 - Please make sure there are enough photos to get a good idea of the project area**
- 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:

Name:

Title:

Select Board Chair

MUST BE TOWN ADMINISTRATOR/MANAGER OR SELECT BOARD CHAIR













Vermont Better Roads Grant Program



Vermont Better Roads Category B/C/D Grant Proposal Scoring Criteria

All applications will be scored on a sliding scale elected by the Better Roads Grant Selection Committee. Road BMP upgrades are considered the highest priority for grant funding when road segments are “hydrologically-connected,” currently “not meeting” MRGP standards, and road slopes are greater than 10%

1. Is the project using Best Management Practices (BMPs) that are proven and likely to maximize long term success, such as practices contained within the new VTrans Better Roads Manual and/or VT DEC MRGP Standards?? [maximum 20 points]

- The proposed project utilizes appropriate BMPs and has maximized the likelihood of long-term success (16-20 points)
- The proposed project utilizes some appropriate BMPs but more could be done to increase the likelihood of success (11-15 points)
- The proposed project does not utilize appropriate BMPs, or it is unclear whether the BMPs will be used appropriately and the likelihood of success is uncertain (0-10 points)

2. What are the expected Water Quality Benefits within the watershed? [maximum 25 points]

- Project will lead to significant improvements to water quality (21-25 points)
- Project will lead to moderate improvements to water quality (16-20 points)
- Project will lead to small improvements to water quality (1-15 points)
- Project will lead to no obvious improvements to water quality (0 points)

3. Is the project in or does stormwater runoff from the project area drain into a hydrologically connected segment? [maximum 20 points]

- Yes; the entire project is in connected segment(s) (20 points)
- Partially; part(s) of the project are in connected segments (5-19 points)
- No; this project is not in a connected segment (0-5 points)

4. Will the project result in full compliance of one or more segments in accordance with the Municipal Roads General Permit (MRGP)? [maximum 25 points]

- All segments within the project will be in full compliance (25 points)
- One or more segments will be in full compliance, with all other segments in partial compliance (11 – 24 points)
- One or more segments will be a minimum of partial compliance (1- 10 points)
- Project does not meet compliance or not applicable (does not have hydrologically connected segments) (0 points)

5. Is the project cost effective? [maximum 10 points]

- The cost of the project is low and the expected benefits are high (8-10 points)
- The cost of the project is average and the expected benefits are average (5-7 points)
- The cost of the project is high and the expected benefits are low (0-4 points)



Vermont Better Roads Grant Program



Cost Estimate Worksheet

Town and Road Name:

Project Name:

Labor	Rate	# Hours	Total (Rate x Hours)
Rick Cloutier	35.56	40	\$1,422.40
Jeff Stone	35.00	30	\$1050.00
Contracted Services Parker Excavation			\$47,500.00
Labor Total			\$49,972.40

Equipment	Rate	# Hours	Total (Rate x Hours)
Trucks (2)	110.00	30 (2)	\$6,600.00
Grader	185.00	5	\$925.00
Loader	140	15	\$2100.00
Equipment Total			\$9625.00

Materials	Rate	Amount	Total (Rate x Amount)
Erosion Stone (Pikes)	14	126 tons	\$1,764.00
HP Dual Wall	179.92	60'	\$10,795.20
Materials Total			\$12,559.20

Miscellaneous	Rate	Amount	Total (Rate x Hours)
Miscellaneous Total			

Grand Total \$72,156.60

Match \$12,000.00

PARKER EXCAVATION

57A Parker Lane
New Haven, VT 05472
802.877.3434

Proposal/Estimate

Date	Estimate #
12/14/2023	036

Name / Address
Town of Panton ATTN: Rick Cloutier 3176 Jersey Street Panton, VT 05491

Account #	Terms
	Net 15

Description	Total
West Street Project Excavate and remove existing culvert Install new (6) foot PVC culvert Town of Panton to provide culvert and trucking	47,500.00

*Prices are subject to change after 90 days from date of estimate.
By signing below, I accept te terms of this estimate as shown above. I agree to pay the balance in full immediately upon completion of the job. Any changes or adjustments made during the job process will be billed per time and materials.*

Subtotal	\$47,500.00
Sales Tax (6.0%)	\$0.00
Total	\$47,500.00

Signature _____ Date _____

TEAM EJP So. Burlington
 E.J. PRESCOTT INC.
 P.O. BOX 350002
 BOSTON, MA 02241-0502

WAREHOUSE
 TEAM EJP So. Burlington
 1235 AIRPORT PARKWAY
 SO. BURLINGTON, VT 05403
 Phone # 802 865 3958

DATE 11/29/23 TIME 9:05:39
 SALES ORDER
 ACKNOWLEDGEMENT
 Payment Type CHARGE
 Document No. 6266647
 Document Date 11/29/23
 Customer Ref. 013700
 Warehouse 090

PANTON HIGHWAY DEPT.
 3176 JERSEY STREET
 PANTON, VT 05491

PANTON HIGHWAY DEPT.
 1235 AIRPORT PARKWAY
 SO. BURLINGTON, VT 05403

SPECIAL INSTRUCTIONS

Customer P.O. Number Job Name Job No. Sls Sales Order Date Shipping Method

0" CULVERT 194 RMN 11/29/23 PICKUP

Product No. / Description	U/M	Ordered	Shipped	B/O	Unit Price	Disc	Ext Amount
01 /NON02890688 60" HP DUAL WALL W/T PIPE	EA	60	60	0	179.92000		60 E.
02 /NON02890690 60" 120# SKI CMP PIPE GALV	EA	50	50	0	102.05000		50 E.
03 /NON02890692 60" STD BAND	EA	1	1	0	326.68000		1 E.

FRT FOR METAL CULVERT
 APPOX \$500.00

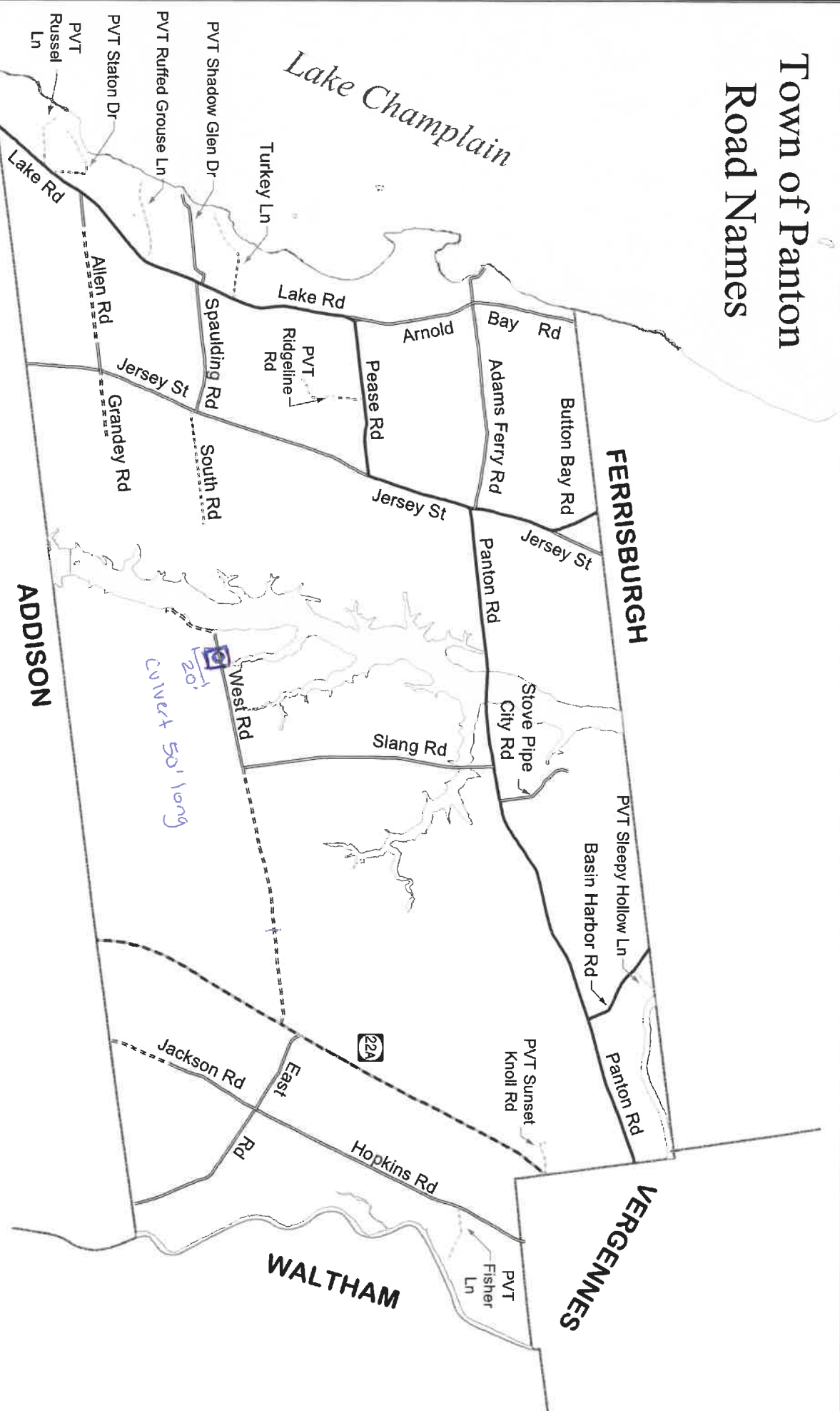
Product To be shipped on or before
 scheduled promise date: 1/01/24
 Thank you for your order. Please review this acknowledgement for
 any errors. If you have any questions or problems, please call your
 local sales office listed above.

Prepaid Collect Pick Up	CTNS	Wt.	Shipped Via	Ship Date	Pick By	Fill By	Pack By	chk By	Amount Taxamt

RECHARGE CANNOT BE RETURNED WITHOUT PERMISSION
 All discrepancies must be reported within 24 hours.

Received By END OF ORDER Date Received TOTAL

Town of Panton Road Names



Road Class

- US Highway
- State Route or Class 1
- Town Class 2
- Town Class 3
- Legal Trail
- Forest Rd
- Private Rd
- Town Class 4



State of Vermont
Structures and Hydraulics Section
Barre City Place
219 North Main Street | Barre, VT 05641
vtrans.vermont.gov

Agency of Transportation

[phone] 802-371-7326
[fax] 802-828-3566
[ttd] 800-253-0191

TO: Alysha Kane, District 5 Project Manager
Jim Cota, District 5 Technician

CC: Jaron Borg, ANR River Management Engineer

FROM: Madeline Glow, Hydraulics Project Engineer

DATE: October 6, 2023

SUBJECT: Panton, TH-13, over unnamed tributary to Dead Creek
Site location: **West Road, 2.0 miles West of VT-22A**
Coordinates: [44.129278, -73.323389](#)

We have completed our hydraulic study for the above referenced site and offer the following for your use.

Hydrology

The following physical characteristics are descriptive of this drainage basin:

Drainage Area	0.45 square miles
Water Bodies and Wetlands (NLCD 2006)	3.4%
Mean Annual Precipitation	35.8 inches

Using the USGS hydrologic method, the following design flow rates were selected:

Annual Exceedance Probability (AEP)	Flow Rate in Cubic Feet per Second (cfs)	
50 % (Q2)	13	
10 % (Q10)	27	
4 % (Q25)	36	Design Flow – Local Road
2 % (Q50)	44	
1 % (Q100)	53	Check Flow

Channel Morphology

The channel for this perennial stream is straight with an estimated local channel slope of 1%. The channel both up and downstream of the existing structure was too wide to get an accurate bankfull width measurement in the field. The existing structure may act as an equalizer pipe during some storm flows.

Existing Conditions

The existing structure is a 5-foot diameter corrugated metal pipe partially filled with sediment with an effective clear rise of 3 feet, providing a waterway opening of approximately 12.3 square feet. Our calculations, field observations and measurements indicate the existing structure does meet current standards of the VTrans Hydraulic Manual. However, it does not meet the state stream equilibrium standards for bankfull width (span

length). The existing structure constricts the channel width, resulting in an increased potential for debris blockage. This complication is known to cause ponding at the inlet, increase stream velocity and scour at the outlet, and may also lead to erosion and failure of channel banks.

This structure results in a headwater depth of approximately 2.3 feet at 4% AEP and 3.0 feet at 1% AEP.

Replacement Recommendations

In sizing a new structure, we attempt to select structures that meet both the current VTrans hydraulic standards, state environmental standards with regard to span length and opening height, and consider roadway grade and other site constraints.

Based on the above considerations and the information available, we recommend any of the following structures as a replacement at this site:

- A corrugated metal pipe with a minimum diameter of 6 feet and the invert buried 1 foot. This will result in a clear height of 5 feet above streambed, providing 25.2 square feet of waterway area. Bed retention sills should be added in the bottom of the structure. Sills should be 12 inches high at the edges of the box and 6 inches high in the center, creating a V-shape across the full width of the pipe. Sills should be spaced no more than 8 feet apart throughout the structure with one sill placed at both the inlet and the outlet. The structure should be filled level to the streambed with E-Stone, Type I, allowing flow to be kept above the surface, providing the conditions necessary for aquatic organism passage. This structure results in a headwater depth of 2.2 feet at 4% AEP and 2.8 feet at 1% AEP.
- A pipe arch with a clear span of 73 inches and height of 55 inches. The invert should be buried 1 foot. This will result in a clear height of 3.6 feet above streambed, providing 17.4 square feet of waterway area. Bed retention sills need to be added with a height of 12 inches and filled as described for the pipe above. This structure results in a headwater depth of 2.1 feet at 4% AEP and 2.7 feet at 1% AEP.

Note: Any similar structure that fits the site conditions could be considered. Any structure with a closed bottom should have bed retention sills and a buried invert as described above.

To match the approximate slope of the existing culvert, the structures recommended above have been modeled with a culvert slope of 1%. The local stream slope should be verified prior to installation of the new culvert.

Stone Fill, Type II should be used to protect any disturbed channel banks or roadway slopes at the structure's inlet up to a height of at least one foot above the top of the opening. The stone fill should not constrict the channel or structure opening.

Prior to any action toward the implementation of any recommendations received from VTrans, stream type and structure size must be confirmed, by the VT ANR River Management Engineer to ensure compliance with state environmental standards for stream crossing structures. This structure is within the mapped FEMA flood insurance study floodplain.

General Comments

It is always desirable for a new structure to have flared wingwalls, matched into the channel banks at the inlet and outlet, to smoothly transition flow and protect the structure and roadway approaches from erosion. It is also recommended that full height concrete headwalls be constructed at the inlet and outlet. Any closed bottom structure should also be equipped with cutoff walls, extending to a depth equal to the culvert rise, up to 4 feet, or to ledge, to serve as undermining prevention.

Any new structure should be properly aligned with the channel, span the natural channel width, and be constructed on a grade that matches the channel.

Please note that while a site visit was made, these recommendations were made without the benefit of a survey and are based on limited information. The final decision regarding replacement of this structure must comply with state regulatory standards, and should take into consideration matching natural channel conditions, roadway grade, safety, and other requirements.

Please contact us if you have any questions or if we may be of further assistance. We can always check other options if the town settles on something not noted above.



Vermont Better Roads Grant Program



River Management Engineer Support Letter

I am providing this letter of support to the Town/City/Village of Town of Panton for their Better Roads grant application on West Road, Panton TH-13, which will have an impact on over unnamed tributary to Dead Creek (Coordinates: 44.129278 - 73.323389)

Mile Marker, Road Name/TH Number
Name of River/Stream

Type text here

Stream Alteration Permit Required for this project: Yes No

Upon review of the site, I have determined that the proposed project is eligible for a Stream Alteration Permit. Additionally, if this project is constructed according to the recommendations described below (see Comments), the following stream equilibrium and connectivity benefits will be achieved:

- Restores or enhances floodplain/access to floodplain
- Restores or enhances natural channel dimensions
- Establishes tree/shrub buffer
- Restores habitat (including aquatic organism passage)
- No additional benefits
- Further restricts or impacts the stream

N/A

Thank you for your consideration,

Signature

Comments: