MEMORANDUM

To: James Reardon, Commissioner of Finance & Management
From: Nathan Lavery, Fiscal Analyst
Date: April 25, 2012
Subject: JFO #2556, #2557, #2558

No Joint Fiscal Committee member has requested that the following items be held for review:

**JFO #2556** – $159,776 grant from the Federal Emergency Management Agency (FEMA) to the Vermont Department of Public Safety. This grant is pass-through funding for hazard mitigation projects in the towns of Pawlet and Waitsfield in response to the December 2010 ice storm.

*JFO received 3/22/12*

**JFO #2557** – $10,000 grant from National Alcohol Beverage Control Association to the Vermont Department of Liquor Control. This grant will be used to create, produce and purchase community outreach and educational materials designed to prevent underage drinking.

*JFO received 3/22/12*

**JFO #2558** – $15,000 grant from National Historic Publications and Records Commission to the Vermont Secretary of State. This grant will be used to establish a program support local officials and other archives in the state to preserve and make accessible Vermont’s historical records.

*JFO received 3/22/12*

The Governor’s approval may now be considered final. We ask that you inform the Secretary of Administration and your staff of this action.

cc: Keith Flynn, Commissioner
    Michael Hogan, Commissioner
    Jim Condos, Secretary of State
MEMORANDUM

To: Joint Fiscal Committee Members
From: Nathan Lavery, Fiscal Analyst
Date: March 23, 2012
Subject: Grant Requests

Enclosed please find four (4) items that the Joint Fiscal Office has received from the administration.

**JFO #2555** – $790,018 grant from the U.S. Department of Health and Human Services to the Vermont Department of Mental Health. This grant will be used to provide regular crisis counseling services to survivors of Tropical Storm Irene in Addison, Bennington, Caledonia, Chittenden, Franklin, Lamoille, Orange, Rutland, Washington, Windham and Windsor Counties.
[JFO received 3/19/12]

**JFO #2556** – $159,776 grant from the Federal Emergency Management Agency (FEMA) to the Vermont Department of Public Safety. This grant is pass-through funding for hazard mitigation projects in the towns of Pawlet and Waitsfield in response to the December 2010 ice storm.
[JFO received 3/22/12]

**JFO #2557** – $10,000 grant from National Alcohol Beverage Control Association to the Vermont Department of Liquor Control. This grant will be used to create, produce and purchase community outreach and educational materials designed to prevent underage drinking.
[JFO received 3/22/12]

**JFO #2558** – $15,000 grant from National Historic Publications and Records Commission to the Vermont Secretary of State. This grant will be used to establish a program support local officials and other archives in the state to preserve and make accessible Vermont’s historical records.
[JFO received 3/22/12]

Please review the enclosed materials and notify the Joint Fiscal Office (Nathan Lavery at (802) 828-1488; nlavery@leg.state.vt.us) if you have questions or would like an item held for legislative review. Unless we hear from you to the contrary by April 9 we will assume that you agree to consider as final the Governor’s acceptance of these requests.
STATE OF VERMONT
FINANCE & MANAGEMENT GRANT REVIEW FORM

<table>
<thead>
<tr>
<th>Grant Summary:</th>
<th>Pass-thru financial assistance from the Federal Emergency Management Agency (FEMA) for hazard mitigation projects in the towns of Pawlet and Waitsfield in response to the December 2010 ice storm.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date:</td>
<td>3/19/2012</td>
</tr>
<tr>
<td>Department:</td>
<td>Department of Public Safety - Vermont Emergency Management (VEM)</td>
</tr>
<tr>
<td>Legal Title of Grant:</td>
<td>Hazard Mitigation Grant Program</td>
</tr>
<tr>
<td>Federal Catalog #:</td>
<td>97.039</td>
</tr>
<tr>
<td>Grant Period:</td>
<td>From: 1/30/2012 To: 1/29/2014</td>
</tr>
<tr>
<td>Grant/Donation</td>
<td>159,776</td>
</tr>
<tr>
<td>SFY 1</td>
<td>SFY 2</td>
</tr>
<tr>
<td>Grant Amount:</td>
<td>$0</td>
</tr>
</tbody>
</table>

Position Information:

<table>
<thead>
<tr>
<th># Positions</th>
<th>Explanation/Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>NA</td>
<td></td>
</tr>
</tbody>
</table>

Additional Comments:

Department of Finance & Management  
Secretary of Administration  
Sent To Joint Fiscal Office  

[Initial]  3/19/12  03/19/12  3/19/12  3/19/12
STATE OF VERMONT REQUEST FOR GRANT ACCEPTANCE

BASIC GRANT INFORMATION

1. Agency: 
2. Department: Public Safety 
3. Program: Emergency Management 
4. Legal Title of Grant: Hazard Mitigation Grant Program 
5. Federal Catalog #: 97.039 
6. Grant/Donor Name and Address: 
   U.S. Dept. of Homeland Security/FEMA Region I 
   99 High St, Sixth Floor 
   Boston, MA 02110-2132 
8. Purpose of Grant: 
   The Hazard Mitigation Grant Program provides States and local governments financial assistance to implement measures that will permanently reduce or eliminate future damages and losses from natural hazards through safer building practices and improving existing structures and supporting infrastructure. 
9. Impact on existing program if grant is not Accepted: 
   The severe storm that occurred December 2010 resulted in Vermont cities and towns suffering ice storms. The President declared this a federal disaster (#1951) and made federal aid available to mitigate future reoccurring flood problems. 
10. BUDGET INFORMATION

<table>
<thead>
<tr>
<th>Expenditures:</th>
<th>SFY 1</th>
<th>SFY 2</th>
<th>SFY 3</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal Services</td>
<td>$</td>
<td>$</td>
<td>$</td>
<td></td>
</tr>
<tr>
<td>Operating Expenses</td>
<td>$</td>
<td>$</td>
<td>$</td>
<td></td>
</tr>
<tr>
<td>Grants</td>
<td>$106,517</td>
<td>$106,518</td>
<td>$</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>$106,517</td>
<td>$106,518</td>
<td>$</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Revenues:</th>
</tr>
</thead>
<tbody>
<tr>
<td>State Funds:</td>
</tr>
<tr>
<td>Cash</td>
</tr>
<tr>
<td>In-Kind</td>
</tr>
<tr>
<td>Federal Funds:</td>
</tr>
<tr>
<td>(Direct Costs)</td>
</tr>
<tr>
<td>(Statewide Indirect)</td>
</tr>
<tr>
<td>(Departmental Indirect)</td>
</tr>
<tr>
<td>Other Funds:</td>
</tr>
<tr>
<td>Grant (source Local Match)</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Appropriation No:</th>
<th>2140030000</th>
<th>Amount:</th>
<th>$159,776</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>$</td>
<td>$</td>
</tr>
</tbody>
</table>

Department of Finance & Management
Version 1.4_12/15/08
Page 1 of 2
STATE OF VERMONT REQUEST FOR GRANT ACCEPTANCE  (Form AA-1)

| Total | $159,776 |

PERSONAL SERVICE INFORMATION

11. Will monies from this grant be used to fund one or more Personal Service Contracts?  ☐ Yes ☑ No
If "Yes", appointing authority must initial here to indicate intent to follow current competitive bidding process/policy.

Appointing Authority Name:  Agreed by:  (initial)

12. Limited Service Position Information:

<table>
<thead>
<tr>
<th># Positions</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Total Positions

12a. Equipment and space for these positions:

☐ Is presently available.  ☐ Can be obtained with available funds.

13. AUTHORIZATION AGENCY/DEPARTMENT

I/we certify that no funds beyond basic application preparation and filing costs have been expended or committed in anticipation of Joint Fiscal Committee approval of this grant, unless previous notification was made on Form AA-1PN (if applicable):

Signature:  Commissioner
Title:  
Date:  3/13/12

14. ACTION BY GOVERNOR

☐ Check One Box:  Accepted

☐ Rejected  (Governor’s signature)
Date:  3/19/12

15. SECRETARY OF ADMINISTRATION

☐ Check One Box:  Request to JFO

☑ Information to JFO  (Secretary’s signature or designee)
Date:  03/19/12

16. DOCUMENTATION REQUIRED

Required GRANT Documentation

☐ Request Memo
 ☐ Dept. project approval (if applicable)
☐ Notice of Award
 ☐ Grant Agreement
☐ Grant Budget
☐ Notice of Donation (if any)
☐ Grant (Project) Timeline (if applicable)
☐ Request for Extension (if applicable)
☐ Form AA-1PN attached (if applicable)

End Form AA-1
February 27, 2012

Mr. Joe Flynn, Director  
Vermont Emergency Management Agency  
103 South Main Street  
Waterbury, VT. 05617

Re: FEMA-DR-1951-VT  
Hazard Mitigation Grant Program (HMGP) Project # 1-R  
Betts Bridge road Culvert, Pawlet, VT

Dear Mr. Flynn:

Enclosed please find the obligation reports for the following Hazard Mitigation Grant Program project:

<table>
<thead>
<tr>
<th>Project #</th>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>1951-1-R</td>
<td>Town of Pawlet, Vermont</td>
<td>$ 51,431</td>
</tr>
<tr>
<td></td>
<td>Betts Bridge road Culvert</td>
<td></td>
</tr>
</tbody>
</table>

**Total:** $ 51,431

The project performance period shall be three years from the date of this letter.

If you have any questions, please do not hesitate to call Richard Verville with the FEMA Region I Mitigation Division at (617) 956-7524.

Sincerely,

Michael Goetz, Branch Chief  
Risk Analysis Branch

Enclosures
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1 - R</td>
<td>0</td>
<td>1</td>
<td>2012</td>
<td>$51,431</td>
<td>$0</td>
<td>$0</td>
<td>$51,431</td>
<td>$51,431</td>
<td>$51,431</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td><strong>TOTALS</strong></td>
<td></td>
<td></td>
<td></td>
<td><strong>$51,431</strong></td>
<td><strong>$0</strong></td>
<td><strong>$0</strong></td>
<td><strong>$51,431</strong></td>
<td><strong>$51,431</strong></td>
<td><strong>$51,431</strong></td>
<td><strong>$0</strong></td>
<td><strong>$0</strong></td>
</tr>
</tbody>
</table>

**Comments**

Date: 02/21/2012 User Id: RVERVIL1
Comment: Allocation of $51,431 approved by MA

Date: 02/21/2012 User Id: SLEYDON
Comment: Allocation of $51,431 approved by HMO

**Authorization**

Preparer Name: RICHARD VERVILLE
Preparation Date: 02/21/2012

HMO Authorization Name: STEPHANIE LEYDON
HMO Authorization Date: 02/21/2012

Authorizing Official Signature

Authorizing Official Title

Authorization Date

Page 1 of 1
## Estimated Costs

### TH 16  Betts Bridge Road

#### Equipment Rental

<table>
<thead>
<tr>
<th>Item</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dozer</td>
<td>$3,000.00</td>
</tr>
<tr>
<td>Compactor</td>
<td>$300.00</td>
</tr>
<tr>
<td>Excavator - 38000 lbs. rental</td>
<td>$13,000.00</td>
</tr>
<tr>
<td>Trucking - 56 hours</td>
<td>$4,260.00</td>
</tr>
<tr>
<td>Loader - 18 hours</td>
<td>$990.00</td>
</tr>
<tr>
<td>Backhoe - 12 hours</td>
<td>$600.00</td>
</tr>
<tr>
<td>Crane</td>
<td>$2,900.00</td>
</tr>
<tr>
<td>Mulcher</td>
<td>$150.00</td>
</tr>
</tbody>
</table>

**Equipment Total** $25,200.00

#### Gravel

<table>
<thead>
<tr>
<th>Item</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bank Run (160 yards)</td>
<td>$1,600.00</td>
</tr>
<tr>
<td>3/4 inch Crushed (96 yards)</td>
<td>$1,152.00</td>
</tr>
<tr>
<td>2 inch Crushed Stone (32 yards)</td>
<td>$307.20</td>
</tr>
</tbody>
</table>

**Gravel Total** $3,059.20

#### Other

<table>
<thead>
<tr>
<th>Item</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Joint Grout</td>
<td>$600.00</td>
</tr>
<tr>
<td>Membrane</td>
<td>$375.00</td>
</tr>
<tr>
<td>Mulch Hay</td>
<td>$75.00</td>
</tr>
<tr>
<td>Silt Fence</td>
<td>$200.00</td>
</tr>
<tr>
<td>Grass Seed</td>
<td>$100.00</td>
</tr>
</tbody>
</table>

**Other Total** $1,350.00

#### Concrete Box Culvert

8'0" Span x 3'0" Rise x 32' Long including wing walls, headwalls, and cutoff walls

**Culvert Total** $33,440.00

#### Labor

including equipment operator and regular labor

**Labor Total** $5,526.00

**Total Estimated Cost** $68,575.20
January 30, 2012

Mr. Joe Flynn, Director  
Vermont Emergency Management Agency  
103 South Main Street  
Waterbury, VT. 05617

Re:   FEMA-DR-1951-VT  
     Hazard Mitigation Grant Program (HMGP) Project # 2-R  
     Project Title, City/Town, VT

Dear Mr. Flynn:

Enclosed please find the obligation reports for the following Hazard Mitigation Grant Program project:

<table>
<thead>
<tr>
<th>Project</th>
<th>Town of Waitsfield, Vermont</th>
</tr>
</thead>
<tbody>
<tr>
<td>1951-2-R</td>
<td>Mad River Bank Stabilization Project</td>
</tr>
</tbody>
</table>

Total: $108,345

The project performance period shall be three years from the date of this letter.

If you have any questions, please do not hesitate to call Richard Verville with the FEMA Region I Mitigation Division at (617) 956-7524.

Sincerely,

Michael Goetz, Branch Chief  
Risk Analysis Branch

Enclosures
<table>
<thead>
<tr>
<th>FEMA Proj State</th>
<th>Project Amend Appl ID</th>
<th>FY</th>
<th>Project Total</th>
<th>Admin Est</th>
<th>Subgrantee Admin Est</th>
<th>Total Allocation</th>
<th>Proj Fed Share</th>
<th>Proj Share</th>
<th>Max Avail for Curr Alloc</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>TOTALS</strong></td>
<td><strong>$108,346</strong></td>
<td><strong>$0</strong></td>
<td><strong>$108,345</strong></td>
<td><strong>$108,345</strong></td>
<td><strong>$108,345</strong></td>
<td><strong>$0</strong></td>
<td><strong>$108,345</strong></td>
<td><strong>$108,345</strong></td>
<td><strong>$0</strong></td>
</tr>
</tbody>
</table>

**Comments**

- Date: 01/25/2012  User Id: RVERVIL1  
  Comment: Allocation of $108,345 approved by MA

- Date: 01/25/2012  User Id: RNADEAU1  
  Comment: HMO approves allocation of $108,345

**Authorization**

Preparer Name: RICHARD VERVILLE
Preparation Date: 01/25/2012

HMO Authorization Name: ROBERT NADEAU
HMO Authorization Date: 01/25/2012

Authorizing Official Signature  
Authorizing Official Title  
Authorization Date
26. Great Eddy Bridge (1833)

This combination multiple king-post and Burr truss covered bridge was entered in the National Register of Historic Places on September 6, 1974. For a complete description of the bridge, please refer to that nomination form.

27. Old Barber Shop; Italianate Revival style (c.1900)

This building functioned as the village barber shop for a number of years. The building is a small, one story, flat roofed, rectangle, three bays in length across its front, north facade, by one bay in width. The building sits on a fieldstone and concrete foundation behind a concrete retaining wall which extends in front of the building along the south edge of the street, and has a partially exposed basement story. It is of wood frame construction with clapboard siding, and is detailed with wide corner boards and fascias, and a boxed cornice overhang around the top of the roof parapet. Across the length of the facade, a one story, shed roofed porch with exposed rafter tails bridges the gap between the facade and the retaining wall along the edge of the street. The porch is supported by four square chamfered posts and is enclosed by a double-rail railing. The entrance is located in the center bay of the facade and consists of a paneled door with single upper light. The windows are two-over-two double-hung sash except for the window to the right of the entrance which is a fixed sash- four-over-four-light display window. A small shed roofed addition, supported on square posts with diagonal braces, projects from the rear elevation, and a brick chimney stack crowns the rear edge of the roof.

28. Blue Building; Italianate Revival style (c.1860)

This building consists of two large rectangular blocks of equal size and height which adjoin each other and share a common facade line on their north elevations. The right-hand section is an irregularly spaced six bays in length by three bays in width across its front facade. Attached at right angles to the right-hand section is a number of brick chimney stacks, and most prominently placed of which is one on the east gable end. The gable facade of the right-hand section contains an original storefront, three windows across its second floor, and a single window in the gable peak. The storefront is composed of a center paneled and upper light door and two flanking, three sided polygonal display windows which extend from floor to ceiling and from the corners of the building to the edge of the door. The display windows are three panes on the side and nine on the front, are supported on stone columns set into the ground, and are capped by a shed roof which extends across
Memo

To: David Beatty, Budget & Management Analyst
From: Karen Mae Smith, Grants Management Specialist
Date: 3/13/2012
CC: file
Re: Request for Grant Acceptance

Attached you will find a Request for Grant Acceptance (AA-1) for the Hazard Mitigation Grant Program, Disaster #1951, received from FEMA.

If you have any questions, please contact me at 802-241-5458 or KarenMae.Smith@state.vt.us.

Thank you.
<table>
<thead>
<tr>
<th>Disaster No</th>
<th>FEMA Project No</th>
<th>Amendment No</th>
<th>Application ID</th>
<th>Action No</th>
<th>Supplemental No</th>
<th>State</th>
<th>Grantee</th>
</tr>
</thead>
<tbody>
<tr>
<td>1951</td>
<td>1-R</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>VT</td>
<td>VT Statewide</td>
<td></td>
</tr>
</tbody>
</table>

Subgrantee: Pawlet  
Statewide  
Subgrantee FIPS Code: 021-54175  
Project Title: Pawlet- Betts Bridge Road Culvert

<table>
<thead>
<tr>
<th>Total Amount Previously Allocated</th>
<th>Total Amount Previously Obligated</th>
<th>Total Amount Pending Obligation</th>
<th>Total Amount Available for New Obligation</th>
</tr>
</thead>
<tbody>
<tr>
<td>$51,431</td>
<td>$51,431</td>
<td>$0</td>
<td>$0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Project Amount</th>
<th>Grantee Admin Est</th>
<th>Subgrantee Admin Est</th>
<th>Total Obligation</th>
<th>IFMIS Date</th>
<th>IFMIS Status</th>
<th>FY</th>
</tr>
</thead>
<tbody>
<tr>
<td>$51,431</td>
<td>$0</td>
<td>$0</td>
<td>$51,431</td>
<td>02/22/2012</td>
<td>Accept</td>
<td>2012</td>
</tr>
</tbody>
</table>

Comments:

- **Date:** 02/22/2012  
  **User Id:** RVERVIL1  
  **Comment:** Obligation of $51,431 approved by MA

- **Date:** 02/22/2012  
  **User Id:** DNELSO15  
  **Comment:** Second obligation of $51,431, approved by HMO

Authorization:

- **Preparer Name:** RICHARD VERVILLE  
  **Preparation Date:** 02/22/2012

- **HMO Authorization Name:** DONNA NELSON  
  **HMO Authorization Date:** 02/22/2012

[Signatures and Authorizing Official Titles]

Page 1 of 1
## Mitigation Project Description

**Amendment Status**: Approved  
**Approval Status**: Approved  
**Project Title**: Pawlet- Betts Bridge Road Culvert  
**Grantee**: Statewide  
**Subgrantee**: Pawlet  
**Grantee County Name**: Rutland  
**Grantee County Code**: 21  
**Grantee Place Name**: Pawlet  
**Grantee Place Code**: 0  
**Subgrantee County Name**: Rutland  
**Subgrantee County Code**: 21  
**Subgrantee Place Name**: Pawlet  
**Subgrantee Place Code**: 54175  
**Project Closeout Date**: 00/00/0000

## Work Schedule Status

<table>
<thead>
<tr>
<th>Amend #</th>
<th>Description</th>
<th>Time Frame</th>
<th>Due Date</th>
<th>Revised Date</th>
<th>Completion Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Set-up site</td>
<td>30 days</td>
<td>00/00/0000</td>
<td>00/00/0000</td>
<td>00/00/0000</td>
</tr>
<tr>
<td>0</td>
<td>Remove existing culvert</td>
<td>30 days</td>
<td>00/00/0000</td>
<td>00/00/0000</td>
<td>00/00/0000</td>
</tr>
<tr>
<td>0</td>
<td>Excavate for new culvert</td>
<td>30 days</td>
<td>00/00/0000</td>
<td>00/00/0000</td>
<td>00/00/0000</td>
</tr>
<tr>
<td>0</td>
<td>Install new box culvert</td>
<td>30 days</td>
<td>00/00/0000</td>
<td>00/00/0000</td>
<td>00/00/0000</td>
</tr>
<tr>
<td>0</td>
<td>Grade Road</td>
<td>30 days</td>
<td>00/00/0000</td>
<td>00/00/0000</td>
<td>00/00/0000</td>
</tr>
</tbody>
</table>

## Approved Amounts

<table>
<thead>
<tr>
<th></th>
<th>Total Approved</th>
<th>Federal Share Percent</th>
<th>Total Approved Federal Share Amount</th>
<th>Non-Federal Share Percent</th>
<th>Total Approved Non-Fed Share Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>$56,575</td>
<td>75.0000000000</td>
<td>$51,431</td>
<td>25.0000000000</td>
<td>$17,144</td>
</tr>
</tbody>
</table>

## Allocations

<table>
<thead>
<tr>
<th>Allocation Number</th>
<th>IFMIS Status</th>
<th>IFMIS Date</th>
<th>Submission Date</th>
<th>FY</th>
<th>ES Support Req ID</th>
<th>ES Amend Number</th>
<th>Proj Alloc Amount Fed Share</th>
<th>Grantee Admin Amount</th>
<th>Subgrantee Admin Amount</th>
<th>Total Alloc Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>A</td>
<td>02/22/2012</td>
<td>02/21/2012</td>
<td>2012</td>
<td>2154660</td>
<td>1</td>
<td>$51,431</td>
<td>$0</td>
<td>$0</td>
<td>$51,431</td>
</tr>
</tbody>
</table>

**Total**: $51,431

## Obligations

<table>
<thead>
<tr>
<th>Action Nr</th>
<th>IFMIS Status</th>
<th>IFMIS Date</th>
<th>Submission Date</th>
<th>FY</th>
<th>ES Support Req ID</th>
<th>ES Amend Number</th>
<th>Suppl Nr</th>
<th>Project Obligated Amnt - Fed Share</th>
<th>Grantee Admin Amount</th>
<th>Subgrantee Admin Amount</th>
<th>Total Obligated Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>A</td>
<td>02/22/2012</td>
<td>02/22/2012</td>
<td>2012</td>
<td>2177410</td>
<td>1</td>
<td>1</td>
<td>$51,431</td>
<td>$0</td>
<td>$0</td>
<td>$51,431</td>
</tr>
</tbody>
</table>

**Total**: $51,431
<table>
<thead>
<tr>
<th>Projected</th>
<th>Total Allocated in NEMIS</th>
<th>Available</th>
<th>Total Obligated in NEMIS</th>
<th>Available</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>B</td>
<td>C (A - B)</td>
<td>D</td>
<td>E (A - D)</td>
</tr>
<tr>
<td>HMGP Project Funds</td>
<td>$338,662</td>
<td>$159,776</td>
<td>$178,886</td>
<td>$159,776</td>
</tr>
<tr>
<td>Regular Projects</td>
<td>$298,023</td>
<td>$159,776</td>
<td>$138,247</td>
<td>$159,776</td>
</tr>
<tr>
<td>Initiative Projects</td>
<td>$16,933</td>
<td>$0</td>
<td>$16,933</td>
<td>$0</td>
</tr>
<tr>
<td>Planning Projects</td>
<td>$23,706</td>
<td>$0</td>
<td>$23,706</td>
<td>$0</td>
</tr>
<tr>
<td>Subtotal</td>
<td>$338,662</td>
<td>$159,776</td>
<td>$178,886</td>
<td>$159,776</td>
</tr>
<tr>
<td>State Management Cost</td>
<td>$16,561</td>
<td>$0</td>
<td>$16,561</td>
<td>$0</td>
</tr>
<tr>
<td>TOTALS</td>
<td>$355,223</td>
<td>$159,776</td>
<td>$195,447</td>
<td>$159,776</td>
</tr>
</tbody>
</table>

For disasters declared on or after 11/13/2007:

HMGP Project funds = Regular Projects + Initiative Projects + Planning Projects.
State Management Cost is separate from the HMGP Project Funds.
Record of Environmental Consideration


**Project Name/Number:** Betts Bridge Road Culvert / HMGP-DR-1951-1R

**Project Location:** Latitude 43.3644 Longitude -73.2348

**Project Description:** The Town proposes to replace the existing undersized 24" culvert with an 8’x3’x32’ concrete box culvert to prevent the overtopping of Betts Bridge Road.

**Documentation Requirements**

- [ ] No Documentation Required (Review Concluded)

- (Short version) All consultation and agreements implemented to comply with the National Historic Preservation Act, Endangered Species Act, and Executive Orders 11988, 11990 and 12898 are completed and no other laws apply. (Review Concluded)

- (Long version) All applicable laws and executive orders were reviewed. Additional information for compliance is attached to this REC.

**National Environmental Policy Act (NEPA) Determination**

- [ ] Statutorily excluded from NEPA review. (Review Concluded)

- [x] Categorical Exclusion - Category xv & xvi Type Single Project

  - [x] No Extraordinary Circumstances exist.
  - Are project conditions required? [x] Yes (see section V) [ ] No (Review Concluded)

  - [ ] Extraordinary Circumstances exist (See Section IV).
  - [ ] Extraordinary Circumstances mitigated. (See Section IV comments)
  - Are project conditions required? [ ] Yes (see section V) [ ] No (Review Concluded)

  - [ ] Environmental Assessment required. See FONSI for determination, conditions and approval.

- [ ] Environmental Assessment required. See FONSI for determination, conditions and approval.

**Comments:** This project has been determined to be Categorically Excluded from the need to prepare either an Environmental Impact Statement or Environmental Assessment in accordance with 44 CFR Part 10.8(d)(2)xv & xvi). Particular attention should be given to the project conditions before and during project implementation. Failure to comply with these conditions may jeopardize federal assistance including funding.

**Correspondence/Consultation/References:** 44 Code of Federal Regulation: Emergency Management and Assistance, Part 10—Environmental Considerations.

Record of Environmental Consideration 1 12/06/11
**Reviewer and Approvals**

FEMA Environmental Reviewer.
Name: Richard H. Verville
Signature: [Signature]
Date: 11/30/11

FEMA Regional Environmental Officer or delegated approving official.
Name: John P. Sullivan
Signature: [Signature]
Date: 12/6/11

**I. Compliance Review for Environmental Laws (other than NEPA)**

**A. National Historic Preservation Act**

☐ Not type of activity with potential to affect historic properties. *(Review Concluded)*

☒ Applicable executed Programmatic Agreement May 2011. Otherwise, conduct standard Section 106 review.

☐ Activity meets Programmatic Allowance # Appendix C III Roads & Bridges B&C

☐ Are project conditions required?  ☐ Yes (see section V)  ☐ No *(Review Concluded)*

**HISTORIC BUILDINGS AND STRUCTURES**

☒ No historic properties 50 years or older in project area. *(Review Concluded)*

☐ Building or structure 50 years or older in project area and activity not exempt from review.

☐ Determination of No Historic Properties Affected (FEMA finding/SHPO/THPO concurrence on file)

☐ Are project conditions required?  ☐ Yes (see section V)  ☐ No *(Review Concluded)*

☐ Determination of Historic Properties Affected (FEMA finding/SHPO/THPO concurrence on file)

☐ Property a National Historic Landmark and National Park Service was provided early notification during the consultation process. If not, explain in comments

☐ No Adverse Effect Determination (FEMA finding/SHPO/THPO concurrence on file).

☐ Are project conditions required?  ☐ Yes (see section V)  ☐ No *(Review Concluded)*

☐ Adverse Effect Determination (FEMA finding/SHPO/THPO concurrence on file)

☐ Resolution of Adverse Effect completed. (MOA on file)

☐ Are project conditions required?  ☐ Yes (see section V)  ☐ No *(Review Concluded)*

**ARCHEOLOGICAL RESOURCES**

☒ Project affects only previously disturbed ground. *(Review Concluded)*

☐ Project affects undisturbed ground.

☐ Project area has no potential for presence of archeological resources

☐ Determination of no historic properties affected (FEMA finding/SHPO/THPO concurrence or consultation on file). *(Review Concluded)*

☐ Project area has potential for presence of archeological resources

☐ Determination of no historic properties affected (FEMA finding/SHPO/THPO concurrence on file)

☐ Are project conditions required?  ☐ Yes (see section V)  ☐ No *(Review Concluded)*

☐ Determination of historic properties affected

☐ NR eligible resources not present (FEMA finding/SHPO/THPO concurrence on file).

☐ Are project conditions required?  ☐ Yes (see section V)  ☐ No *(Review Concluded)*

☐ NR eligible resources present in project area. (FEMA finding/SHPO/THPO concurrence on file)

☐ No Adverse Effect Determination. (FEMA finding/SHPO/THPO concurrence on file)

☐ Are project conditions required?  ☐ Yes (see section V)  ☐ No *(Review Concluded)*

☐ Adverse Effect Determination. (FEMA finding/SHPO/THPO concurrence on file)

☐ Resolution of Adverse Effect completed. (MOA on file)

☐ Are project conditions required?  ☐ Yes (see section V)  ☐ No *(Review Concluded)*

**Record of Environmental Consideration**

2 11/30/11
B. Endangered Species Act

- No listed species and/or designated critical habitat present in the action area. (Review Concluded)
- Listed species and/or designated critical habitat present in the action area.
  - No effect to species or designated critical habitat. (See comments for justification) (Review Concluded)
  - May affect, but not likely to adversely affect species or designated critical habitat (FEMA determination/USFWS/NMFS concurrence on file) (Review Concluded)
  - Likely to adversely affect species or designated critical habitat
    - Formal consultation concluded. (Biological Assessment and Biological Opinion on file)
      - Are project conditions required? □ YES (see section V) □ NO (Review Concluded)

Comments: There are no listed Species or critical habitat in this project area
Correspondence/Consultation/References: http://www.fws.gov/newengland/EndangeredSpeciesConsultation_Project_Review.htm

C. Coastal Barrier Resources Act

- Project is not located in Coastal Barriers Resource System or Otherwise Protected Area.
- Project does not affect a coastal barrier within the COBRA System (regardless of in or out) (Review Concluded)
- Project is located in a coastal barrier system and/or affects a coastal barrier. (FEMA determination/USFWS consultation on file)
  - Proposed action an exception under Section 3505.a.6? (Review Concluded)
  - Proposed action not excepted under Section 3505.a.6.
    - Are project conditions required? □ YES (see section V) □ NO (Review Concluded)

Comments:
Correspondence/Consultation/References:

D. Clean Water Act

- Project site located outside of and would not affect any waters of the U.S. (Review Concluded)
- Project site located in or would affect waters, including wetlands, of the U.S.
  - Project exempted as in kind replacement or other exemption. (Review Concluded)
  - Project may require Section 404/401/10 permit, including qualification under Nationwide Permits or Programmatic General Permit.
    - Are project conditions required? □ YES (see section V) □ NO (Review Concluded)

Comments: The Applicant shall ensure that Best Management Practices are implemented to prevent erosion and sedimentation to surrounding, nearby or adjacent wetlands. This includes equipment storage and staging of construction to prevent erosion and sedimentation to ensure that wetlands are not adversely impacted per the Clean Water Act and Executive Order 11990.

E. Coastal Zone Management Act

- Project does not affect a coastal zone area (regardless of in or out)- (Review concluded)
- Project is not located in a coastal zone area – (Review concluded)
- Project is located in a coastal zone area and/or affects the coastal zone
  - State administering agency does not require consistency review. (Review Concluded)
  - State administering agency requires consistency review.
    - Are project conditions required? □ YES (see section V) □ NO (Review Concluded)

Comments:

Record of Environmental Consideration 3 12/06/11
Reviewer Name: Stephanie Leydon
Disaster/Emergency/Program/Project Title: 1951-VT / HMGP / Betts Bridge Road Culvert
Applicant: Town of Pawlet, Vermont

☐ Project adversely affects Essential Fish Habitat (FEMA determination/USFWS/NMFS concurrence on file)
  ☐ NOAA Fisheries provided no recommendation(s) (Review Concluded).
  ☐ NOAA Fisheries provided recommendation(s)
  ☐ Written reply to NOAA Fisheries recommendations completed.
  Are project conditions required?  ☐ YES (see section V)  ☐ NO (Review Concluded)

Comments: 
Correspondence/Consultation/References:

K. Wild and Scenic Rivers Act
☒ Project is not along and does not affect Wild or Scenic River - (Review Concluded)
☐ Project is along or affects Wild or Scenic River
  ☐ Project adversely affects WSR as determined by NPS/USFS. FEMA cannot fund the action. (NPS/USFS/USFWS/BLM consultation on file)
  ☐ Project does not adversely affect WSR. (NPS/USFS/USFWS/BLM consultation on file)
  Are project conditions required?  ☐ YES (see section V)  ☐ NO (Review Concluded)

Comments: 
Correspondence/Consultation/References:

L. Other Relevant Laws and Environmental Regulations
Identify relevant law or regulations, resolution and any consultation/references

II. Compliance Review for Executive Orders

A. E.O. 11988 - Floodplains
☒ Outside Floodplain and No Effect on Floodplains/Flood levels - (Review Concluded)
☐ Located in Floodplain or Effects on Floodplains/Flood levels
  ☐ No adverse effect on floodplain or can be adversely affected by the floodplain. (Review Concluded).
  ☐ Beneficial Effect on Floodplain Occupancy/Values (Review Concluded).
  ☐ Possible adverse effects associated with investment in floodplain, occupancy or modification of floodplain environment
    ☐ 8 Step Process Complete - documentation on file
    Are project conditions required?  ☐ YES (see section V)  ☐ NO (Review Concluded)

Comments: The project is outside the flood plain
Correspondence/Consultation/References: FIRM 50021CO655D Panel # 0655D

B. E.O. 11990 - Wetlands
☐ Outside Wetland and No Effect on Wetland(s) - (Review Concluded)
☒ Located in Wetland or effects Wetland(s)
  ☒ Beneficial Effect on Wetland - (Review Concluded)
  ☐ Possible adverse effect associated with constructing in or near wetland
    ☐ Review completed as part of floodplain review
    ☐ 8 Step Process Complete - documentation on file
    Are project conditions required?  ☐ YES (see section V)  ☐ NO (Review Concluded)

Comments: The Applicant shall ensure that Best Management Practices are implemented to prevent erosion and sedimentation to surrounding, nearby or adjacent wetlands. This includes equipment storage and staging of construction to prevent erosion and sedimentation to ensure that wetlands are not adversely impacted per the Clean Water Act and Executive Order 11990.

Record of Environmental Consideration 5 12/06/11
C. E.O. 12898 - Environmental Justice For Low Income and Minority Populations

☑ No Low income or minority population in, near or affected by the project - (Review Concluded)
☑ Low income or minority population in or near project area
- ☐ No disproportionately high and adverse impact on low income or minority population - (Review Concluded)
☐ Disproportionately high or adverse effects on low income or minority population
- Are project conditions required? ☐ YES (see section V) ☐ NO (Review Concluded)

Comments:

Correspondence/Consultation/References:

III. Other Environmental Issues

Identify other potential environmental concerns in the comment box not clearly falling under a law or executive order (see environmental concerns scoping checklist for guidance).

Comments:

Correspondence/Consultation/References:

IV. Extraordinary Circumstances

Based on the review of compliance with other environmental laws and Executive Orders, and in consideration of other environmental factors, review the project for extraordinary circumstances.

* A “Yes” under any circumstance may require an Environmental Assessment (EA) with the exception of (ii) which should be applied in conjunction with controversy on an environmental issue. If the circumstance can be mitigated, please explain in comments. If no, leave blank.

Yes
☐ (i) Greater scope or size than normally experienced for a particular category of action
☐ (ii) Actions with a high level of public controversy
☐ (iii) Potential for degradation, even though slight, of already existing poor environmental conditions;
☐ (iv) Employment of unproven technology with potential adverse effects or actions involving unique or unknown environmental risks;
☐ (v) Presence of endangered or threatened species or their critical habitat, or archaeological, cultural, historical or other protected resources;
☐ (vi) Presence of hazardous or toxic substances at levels which exceed Federal, state or local regulations or standards requiring action or attention;
☐ (vii) Actions with the potential to affect special status areas adversely or other critical resources such as wetlands, coastal zones, wildlife refuge and wilderness areas, wild and scenic rivers, sole or principal drinking water aquifers;
☐ (viii) Potential for adverse effects on health or safety; and
☐ (ix) Potential to violate a federal, state, local or tribal law or requirement imposed for the protection of the environment.
☐ (x) Potential for significant cumulative impact when the proposed action is combined with other past, present and reasonably foreseeable future actions, even though the impacts of the proposed action may not be significant by themselves.

Comments:

Record of Environmental Consideration 12/06/11
V. Environmental Review Project Conditions

General comments:

1. If ground disturbing activities occur during implementation, the applicant will monitor excavation activity, and if any artifacts or human remains are found during the excavation process all work is to cease and the applicant will notify FEMA, Grantee, and SHPO/THPO.

2. The applicant must follow all applicable local, state, and federal laws, regulations, and requirements for the abatement and disposal of lead, asbestos, and other routinely encountered hazardous substances. If there is an unusual material encountered or there is an extraordinary amount of lead, asbestos, or other routinely encountered material the applicant must contact the Grantee and the Grantee must contact FEMA. The applicant must also contact the relevant agency with authority for regulation of the material.

3. If deviations from the proposed scope of work result in design changes, the need for additional ground disturbance, additional removal of vegetation, or result in any other unanticipated changes to the physical environment, the Grantee must contact FEMA, and a re-evaluation under NEPA and other applicable environmental laws will be conducted by FEMA.

Other Required Project Specific Conditions

1. The culvert must be constructed in such a way as to not inhibit the movement of aquatic organisms, particularly fish. The culvert invert must be placed approximately 6” in the streambed or an arch or bottomless structure must be used.

2. As long as the appropriate soil erosion/siltation control measures and the best management practices for roads and culverts (e.g. placing culvert inverts at or slightly below grade in the bed of the stream to accommodate fish passage, working during low flow summer periods, etc.) are utilized, harm to fish and wildlife will be minimized.

3. The applicant must seed, mulch, and replant any disturbed ground with native shrubs and vegetation. A special effort shall be made to plant native vegetation at higher bank elevations.

4. The applicant must ensure that best managing practices for roads and culverts are utilized, and installation of erosion control. Construction activities that result in disturbed ground must be protected against erosion into the stream. The Town must follow the Clean Water Act’s: “Best Management Practices, BMP” for erosion control during construction of this project. This includes, the applicant applying for all local, state, and federal permits and easements necessary to complete the project and obtaining these permits prior to commencement of any work. Any conditions of these permits become conditions of this grant, project, and environmental review. In accordance with FEMA Guidelines, applicants are required to comply with the federal law provisions of: the Water Pollution Control Act, as amended; Section 10 of the Rivers and Harbors Act; and Section 404 of the Clean Water Act, requirements regarding acquisition of appropriate permits or determinations from the U.S. Army Corps of Engineers (USACE) for projects funded by FEMA. All correspondence (including copies of any permits issued by USACE) regarding these determinations should be coordinated with and copies forwarded to FEMA. The applicant must follow all applicable local, state, and federal laws, regulations, and requirements and/or obtain proper local, state, and federal permit concerning this project. Any
conditions of this process or these regulations, laws, and policies become conditions of this grant, project, and environmental review.

5. The applicant is required to obtain any applicable permits with the Vermont Department of Environmental Protection and the U.S. Army Corps of Engineers prior to construction if this project will impact wetlands. All conditions of any permit acquired become conditions of this grant, and a copy of such permit(s) should be forwarded to FEMA.

6. Applicant must obtain floodplain permit or approval from the local floodplain administrator before work begins.

Monitoring Requirements:

Quarterly Reports and final inspection of scope of work, accounting records and copies of any easements and permits are required.
October 13, 2011

Ms. Deb Hawkins, Town Administrator
Town of Pawlet
P.O. Box 128
Pawlet, VT 05761

Dear Ms. Hawkins,

The State Mitigation Project Selection Subcommittee met recently to review grant applications for FEMA's Hazard Mitigation Grant Program (HMGP) in connection with disaster DR 1951. I am pleased to inform you that the proposal for the Betts Bridge Road culvert upgrade project has been selected and was forwarded to FEMA for their review and approval.

The next step in the process entails a full FEMA review of the technical aspects of the proposal as well as an environmental review. Once FEMA has concluded its final review and approval, the project must be submitted to the state's Joint Fiscal Office in Montpelier for additional state review and concurrence. Once we receive the final FEMA and state approvals for the project, the town will be issued a sub-grant agreement and then work may proceed on the project. No work should begin on the project before the town has received all the final approvals from FEMA and the state's Joint Fiscal Office. Also, all necessary state and federal permits must be in place before work can commence on the project.

Feel free to contact me at your convenience if you have any questions or concerns regarding the HMGP grant process.

Sincerely,

Ray Doherty, State Hazard Mitigation Officer
Vermont Emergency Management
103 South Main Street
Waterbury, VT 05671
Tel (802) 241-5258
Email rdoherty@dps.state.vt.us
State of Vermont
Hazard Mitigation Grant Program
Project Application
FEMA- DR- 1951 VT Date Submitted: October 3, 2011

Part 1:

<table>
<thead>
<tr>
<th>Applicant Information</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Applicant Name:</strong></td>
</tr>
<tr>
<td>(Eligible Applicant is local government, state agency, non-profit)</td>
</tr>
<tr>
<td><strong>County:</strong></td>
</tr>
<tr>
<td><strong>Name of Local Hazard Mitigation Plan:</strong></td>
</tr>
<tr>
<td><strong>Date of FEMA approval of Local Plan:</strong></td>
</tr>
</tbody>
</table>

Primary Contact Information

| Name: | Clarence Decker |
| Title: | Selectboard Member and Board Liaison for Highways |
| Organization: | Town of Pawlet |
| Mailing Address: | PO Box 128, Pawlet, VT 05761 |
| Work Phone Number: | (802) 325-3309 |
| Alternate Phone Number: | (802) 325-3121 (home) |
| Fax Number: | (802) 325-6109 |
| Email: | pawletclerk@vermontel.net |

Secondary Contact Information

| Name: | Deb Hawkins |
| Title: | Town Clerk |
| Organization: | Town of Pawlet |
| Mailing Address: | PO Box 128, Pawlet, VT 05761 |
| Work Phone Number: | (802) 325-3309 |
| Alternate Phone Number: | |
| Fax Number: | (802) 325-6109 |
| Email: | pawletclerk@vermontel.net |

Part 2:

<table>
<thead>
<tr>
<th>Problem Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Location of Project:</strong></td>
</tr>
<tr>
<td>Identify adjacent roads/streets and bodies of water:</td>
</tr>
<tr>
<td><strong>Required Maps:</strong></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

**Problem Statement:** (What's Happening?)

This project will replace a 2-foot culvert that is not large enough to accept the water discharge that is required during spring snow melts and during flash flooding. The water overflows on this Class III road that serves several residents, businesses, and agricultural operations. When flooded, the road is impassable for response for fire and rescue vehicles, forcing responders to detour up to 6 miles.

**Supporting Documentation:** (Attach)

- Photos
- Engineering Studies
- Site Diagrams

Part 2: Problem Description continued
### Statement of Damages

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
<th>Description of Direct Damages</th>
<th>Description of Indirect Damages</th>
<th>Cost of Damage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Annual Spring Flooding 2002-2011</td>
<td>Flooding</td>
<td>Water overtopping roadway and causing surface and subsurface damage</td>
<td>Closure of road for 2 days to allow repair; requires detour of up to 6 miles for residents and visitors</td>
<td>$6000 repair costs + emergency measures + detour costs</td>
</tr>
</tbody>
</table>

#### Part 3: Project Objective

**Project Objective**

The project objective is to reduce the impact of high water events on Betts Bridge Road. The result will reduce regular repair costs, reduce the need to close the road, and reduce required travel distances for residents, visitors, and emergency vehicles.

#### Part 4: Analysis of Alternative Solutions

**Alternative Solutions**

<table>
<thead>
<tr>
<th>Alternative Solution</th>
<th>Brief Title</th>
<th>Description of Alternative</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Concrete Box Culvert (chosen)</td>
<td>This alternative uses a pre-cast concrete box culvert that is 8 ft x 3 ft x 32 ft to reduce the impact of high water events on Betts Bridge Road.</td>
</tr>
<tr>
<td>2</td>
<td>Corrugated aluminum culvert</td>
<td>This alternative uses a corrugated metal culvert to address high water flows.</td>
</tr>
<tr>
<td>3</td>
<td>No Action</td>
<td>No Action</td>
</tr>
</tbody>
</table>

**Supporting Documentation:** (Attach)

- Yes
- No

Did any of the alternatives have significant impacts or limitations?

- Yes
- No

If Yes, provide additional information concerning these impacts

- Is the information attached?

- Yes
- No

Hydrology/hydraulics reports, if applicable

- Yes
- No

Supporting documentation for the alternatives (i.e. drawings, designs, pictures) (Attached)

**Preferred Alternative:**

- Alternative 1 - Concrete Box Culvert

**Justification:**

This project matches the recommendation provided in the Hydraulics Report completed by the Agency of Transportation, which also reports "very little height from the stream bed to the road," requiring replacement with a wide, low structure. In addition, the concrete box culvert will have a longer lifespan than metal culvert alternatives.
Part 5: Project Description

This project will install a pre-cast concrete box culvert that is 8 feet wide by 3 feet high by 32 feet long to reduce the impact of high water events on Betts Bridge Road.

Expected Life of Project

FEMA Expected Life is 30 years. Anecdotal evidence suggests culvert will last far longer, likely between 60-75 years.

Supporting Documentation:

- Stamped Engineering Studies will be provided by contractor, as noted
- Site Diagrams

Project Costs for Preferred Alternative

<table>
<thead>
<tr>
<th>Item</th>
<th>Unit Qty.</th>
<th>Unit Measurement</th>
<th>Unit Cost</th>
<th>Cost Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equipment Rental</td>
<td></td>
<td></td>
<td></td>
<td>$25,200.00</td>
</tr>
<tr>
<td>Gravel</td>
<td></td>
<td></td>
<td></td>
<td>$3,059.20</td>
</tr>
<tr>
<td>Other (grout, membrane, and erosion measures)</td>
<td></td>
<td></td>
<td></td>
<td>$1,360.00</td>
</tr>
<tr>
<td>Pre-cast box culvert</td>
<td></td>
<td></td>
<td></td>
<td>$33,440.00</td>
</tr>
<tr>
<td>Labor</td>
<td></td>
<td></td>
<td></td>
<td>$5,626.00</td>
</tr>
</tbody>
</table>

Total Project Cost Estimate: $68,575.20

Summary of Project Costs

<table>
<thead>
<tr>
<th>A</th>
<th>Total Project Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>B</td>
<td>FEMA Share (75% of Line A)</td>
</tr>
<tr>
<td></td>
<td>$51,431.40</td>
</tr>
<tr>
<td>C</td>
<td>Local Share (25% of Line A)</td>
</tr>
<tr>
<td></td>
<td>Note: The sum of lines 1-3 must equal Line C</td>
</tr>
<tr>
<td></td>
<td>1. Cash</td>
</tr>
<tr>
<td></td>
<td>$17,143.80</td>
</tr>
<tr>
<td></td>
<td>2. In-Kind Service</td>
</tr>
<tr>
<td></td>
<td>$16,000.00</td>
</tr>
<tr>
<td></td>
<td>3. Other</td>
</tr>
<tr>
<td></td>
<td>$143.80</td>
</tr>
<tr>
<td>D</td>
<td>Total Local Share (Equal to Line C)</td>
</tr>
<tr>
<td></td>
<td>$17,143.80</td>
</tr>
<tr>
<td>E</td>
<td>Total Project Costs (Line B + Line D)</td>
</tr>
<tr>
<td></td>
<td>$68,575.20</td>
</tr>
</tbody>
</table>

Identify source of local non-federal match:

Local funds, in-kind service, and other materials will be provided by the Town of Pawlet and town officials.
## Part 6: Benefit/Cost Analysis

<table>
<thead>
<tr>
<th>Estimated Project Cost</th>
<th>$68,575</th>
<th>Future Maintenance costs for life of project</th>
<th>$2,482</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total Cost</strong></td>
<td>Project Cost + Future Maintenance</td>
<td><strong>Total Cost</strong></td>
<td>$71,057</td>
</tr>
<tr>
<td>Benefit/Cost Ratio</td>
<td>Anticipated Loss or Benefit /Total Cost</td>
<td>Benefit/Cost Ratio</td>
<td>1.21</td>
</tr>
</tbody>
</table>

Only those projects with a benefit-cost ratio of 1.0 or greater will be considered; please attach a separate benefit-cost analysis (BCA). Planning applications do not require a BCA.

## Part 7: Scope of Work

<table>
<thead>
<tr>
<th>Task Description</th>
<th>Days to Complete</th>
</tr>
</thead>
<tbody>
<tr>
<td>Set-up site</td>
<td>0.5</td>
</tr>
<tr>
<td>Remove existing culvert</td>
<td>1</td>
</tr>
<tr>
<td>Excavate for new culvert</td>
<td>1</td>
</tr>
<tr>
<td>Install new box culvert</td>
<td>1</td>
</tr>
<tr>
<td>Grade road</td>
<td>0.5</td>
</tr>
</tbody>
</table>

## Part 8: Technical Confirmation

<table>
<thead>
<tr>
<th>Supporting Documentation: (Attach)</th>
<th>Has the hydrology/hydraulics/structural design of this project been endorsed by the local Vtrans District Engineer, ANR Stream Alteration Engineer, consulting engineer or other technical expert?</th>
<th>Supporting letter(s) (attached)</th>
</tr>
</thead>
<tbody>
<tr>
<td>☑</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## Part 9: Authorized Signature

I certify that I am the authorized agent for the applicant and have responsibility for the development and completion of this application and all the information contained herein is true and accurate.

Authorized Agent's Signature: Clarence Decker, Selectboard Member

Date:  Sept. 29, 2011
Red marker indicates project location

Town of Pawlet
HMGP Application
October 3, 2011
TO: Town of Pawlet

Deck

PHONE: 325-3309

DATE: 2/3/11

FAX: 325-6109

JOB NAME: TH#16 (Betts Bridge Rd.)

Pawlet, VT

Precast Reinforced Box Culvert

2'-0" Span x 3'-0" Rise x 22'-0" Long Precast Reinforced Concrete Box Culvert

Includes: MANITO RS-20 Load rating assuming a minimum of 0'-2" earth cover. Waterpassing area of culvert will be based on a 24' square foot.

Precast Reinforced Box Culvert Section's will consist of the following:

(5) 6'-0" Long Precast sections that weigh approximately (10 -1-1) tons each.

Outlet Box section will have a 18" high header affixed

(2) Precast Reinforced concrete cutoff walls that measure 18" wide x 28" high x 9'-4" long.

(2) 6'-0" long reinforced concrete tapered wing-walls on inlet end of culvert will be fabricated with 12" thick x 4'-0" wide cantilever footings.

(2) 6'-0" long reinforced concrete wing-walls on outlet end of culvert will be fabricated with a 12" thick x 4'-0" wide cantilever footings.

(4) 6'-0" Long Separate Wingwall Footings that measure 36" wide x 24" High will be supplied.

Camp Precast will supply stamped engineered working drawings and design computations for engineer's approval.

Total Cost $29,870.00

Note: Price includes delivery of box culverts and related sections to Pawlet on flatbed trailers only.

Crane Service for unloading & setting & grouting will be provided by Camp Precast.

Exclusions: All guardrail posts and all related items for guardrail connections, 0-Bolts for guardrail connections if required, sheet membrane waterproofing if required, compaction, all site excavation, backfill, de-watering if necessary, are all excluded and therefore are to be provided by others.

ESTIMATED: Mark Pfenning

This estimate is for completing the job as described above. It is based on our evaluations and does not include material price increases or additional labor and materials which may be required should unforeseen problems or adverse weather conditions arise after the work has started. The prices of a quotation does not include any electrical wiring. All prices are subject to state and P.C.B. jobsite unless otherwise stated. Prices of tanks and pumpstations are set in a properly prepared hole at our discretion unless otherwise stated. Any item not specifically mentioned in this quote is not included and was not intended to be included. Quote valid for 30 days.
We have completed our preliminary hydraulic study for the above referenced site, and offer the following information for your use:

**Hydrology**
This site has a hilly drainage basin. It is a mixture of forested and open areas with some wetlands. The total contributing drainage area is about 0.7 sq. mi. There is an overall length of 7920 feet from the divide to the site, with a 720-foot drop in elevation, giving an average overall channel slope of 9.1%. The stream slope at the site was estimated to be about 0.5%. Using several hydrologic methods, we came up with the following design flow rates:

<table>
<thead>
<tr>
<th>Recurrence Interval in Years</th>
<th>Flow Rate in Cubic Feet per Second (CFS)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q2.33</td>
<td>40</td>
</tr>
<tr>
<td>Q10</td>
<td>80</td>
</tr>
<tr>
<td>Q25</td>
<td>100 - Town Highway Design Flow</td>
</tr>
<tr>
<td>Q50</td>
<td>120</td>
</tr>
<tr>
<td>Q100</td>
<td>140 - Check flow</td>
</tr>
</tbody>
</table>

**Existing Conditions**
The existing structure is a 30" corrugated metal pipe, providing a waterway opening of 4.9 sq. ft. There is a scour pool at the outlet.

Our calculations show the existing pipe is not adequate hydraulically. Water overtops to road below the design Q25, and headwater to depth ratios exceed the allowable values.

**Recommendations**
In sizing a new structure we attempted to select structures that met the hydraulic standards, fit the natural channel width, the roadway grade and other site conditions. There is very little height from the stream bed to the road, so replacement options are limited to wide, low structures. We recommend any of the following structures as a replacement at this site:

1. A concrete box with an 8' wide by 3' high inside opening, providing 24-sq. ft. of waterway area. This structure will result in a headwater depth at Q25 = 2.9' and at Q100 = 3.7', with no roadway overtopping at Q100.
2. Any similar structure with a minimum clear span of 6' and at least 24-sq. ft. of waterway area, that fits the site conditions, could be considered.

**General comments**

If a new box is installed, we recommend it have full headwalls at the inlet and outlet. The headwalls should extend at least four feet below the channel bottom, or to ledge, to act as cutoff walls and prevent undermining.

It is always desirable for a new structure of this size to have flared wingwalls at the inlet and outlet, to smoothly transition flow through the structure, and to protect the structure and roadway approaches from erosion. The wingwalls should match into the channel banks. Any new structure should be properly aligned with the channel, and constructed on a grade that matches the channel.

Stone Fill, Type II should be used to protect any disturbed channel banks or roadway slopes at the structure's inlet and outlet, 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.

The Agency of Natural Resources (ANR), Corps of Engineers, or other permitting agency may have additional concerns regarding replacement of this structure, or any channel work. The Stream Alteration Engineer should be contacted with respect to these concerns, before a replacement culvert is ordered. If ANR requires the invert of the box to be buried to provide a natural bottom, the size of the structure will have to be larger to provide the required waterway area.

Please keep in mind 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 the replacement of this structure should take into consideration matching the natural channel conditions, the roadway grade, environmental concerns, safety, and other requirements of the site.

Please contact us if you have any questions or if we may be of further assistance.

DCW

cc: Chris Brunelle, A.N.R. Stream Alteration Engineer
Hydraulics Project File via NJW
Hydraulics Chrono File
TOP VIEW
OF BOX SECTION

SECTION

END VIEW
OF BOX SECTION

WING WALLS

CUT OFF WALL
# ANR-DEC-WQD-RIVER MANAGEMENT PROGRAM FIELD FORM

**DATE:** 05/21/09  
**TOWN:** PAWLET  
**RIVER/STREAM:** VARIES  

**PROJECT LOCATION:** VARIES  

**Project Description**  
**Bridge:**  
**Culvert:**  
**Bank stabilization:**  
**Utility crossing:**  
**Other:**  

**Property Owner:**  
**NAME:** TOWN OF PAWLET  
**ADDRESS:** 128 SCHOOL ST  
**PHONE#:** 325-3121  

**Contractor:**  
**NAME:** CLARENCE DECKER  
**ADDRESS:**  
**PHONE#:**  

**Conditions:**  
1. All in-stream work shall be restricted to the period from 7/15 to 10/1. Construction in or adjacent to flowing water outside the working dates must be isolated from stream flow and must receive prior approval.  
2. Strictly limit extent of any riverbank disturbance. Maintain all established vegetation possible.  
3. Any stone fill use is only to stabilize the banks according to the field sketch, no new encroachment is permitted.  
4. Erosion and sediment control measures shall be employed to maintain water quality.  
5. All construction equipment shall be clean and well maintained, free of fuel, hydraulic and gear oil leaks.  
6. This form does not relieve you of the responsibility of obtaining permission from the affected property owners, nor the responsibility of obtaining other necessary local, state, or federal permits.  
7. This authorization expires on 12/31/12.  
8. **CULVERT INVEST SHALL MATCH STREAM SLOPE AND BE EMBANKED.**  
9. **PROJECT SHALL COMPLY WITH HYDRAULIC STUDIES PERFORMED BY VITRAS AND AS**  
**LISTED BELOW:**  

**Field sketch:**  
- PAWLET TH 12 (STAGGER ROAD), DATED 4/6/09  
- PAWLET VT 153, DATED 11/12/09  
- PAWLET TH 16 (BETTS BRIDGE ROAD), DATED 5/6/09  
- PAWLET TH 16 (BULL FROG HOLLOW ROAD), DATED 5/6/09  

**Signature:**  
CHRIS BRUELLE, STREAM ALTERATION ENGINEER  
RIVER MANAGEMENT FIELD ENGINEER  
177-5328  

**Field Form #**  
N/A
Project Summary:

Project Number: Disaster #: DR-1951-VT
Program: HMGP
Agency: Town of Pawlet
Analyst: Philip Picotte

Point of Contact: Clarence Decker
Phone Number: 802-325-3121
Address: PO Box 128, Pawlet, Vermont, 05761

Structure Summary For:

Betts Bridge Road (TH 16), Town of Pawlet, PO Box 128, Pawlet, Vermont, 05761, Rutland

Structure Type: Other
Historic Building: No
Contact: Clarence Decker

Benefits: $85,783
Costs: $71,057
BCR: 1.21

<table>
<thead>
<tr>
<th>Mitigation</th>
<th>Hazard</th>
<th>BCR</th>
<th>Benefits</th>
<th>Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drainage Improvement</td>
<td>Damage-Frequency Assessment</td>
<td>1.21</td>
<td>$85,783</td>
<td>$71,057</td>
</tr>
</tbody>
</table>
Structure and Mitigation Details For: Betts Bridge Road (TH 16), Town of Pawlet, PO Box 128, Pawlet, Vermont, 05761, Rutland

Benefits: $85,783  Costs: $71,057  BCR: 1.21

Hazard: Damage-Frequency Assessment - Flood
Mitigation Option: Drainage Improvement
Latitude:  Longitude:  Project Useful Life: 30

Mitigation Information

Basis of Damages: Historical Damages
Number of Estimated Damage Events: 10
Number of Events with Known Recurrence Intervals: 0

Roads And Bridges

Estimated Number of One-Way Traffic Trips Per Day: 75
Additional Time per One-Way Trip: 00:20
Number of Additional Miles: 6.0
Federal Rate: 0.555
Economic Loss Per Day of Loss of Function: $1,204

Facility Description:
Betts Bridge Road (TH 16)

Historic Damages Before and After Mitigation

Analysis Year: 2011  Analysis Duration: 32  Utilities ($/day):
Year Built: 1980  User Input Analysis Duration: 10  Buildings ($/day):
Roads/Bridges ($/day): $1,203.50

Version: 4.5.5
### Damages Before Mitigation

**Damage Year: 2011**
- **RI:** 200.00
- **Are Damages In Current Dollars? Yes**

<table>
<thead>
<tr>
<th>Buildings (Days):</th>
<th>Utilities (Days):</th>
<th>Roads (Days):</th>
<th>Total</th>
<th>Total Inflated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emergency Measures ($)</td>
<td>$200</td>
<td>$200</td>
<td>$6,000</td>
<td>$6,200</td>
</tr>
<tr>
<td>Repair Costs ($)</td>
<td>$6,000</td>
<td>$6,000</td>
<td>$6,000</td>
<td>$6,200</td>
</tr>
<tr>
<td>Total</td>
<td>$8,607</td>
<td>$8,607</td>
<td>$8,807</td>
<td>$8,807</td>
</tr>
</tbody>
</table>

**Damage Year: 2010**
- **RI:** 200.00
- **Are Damages In Current Dollars? No**

<table>
<thead>
<tr>
<th>Buildings (Days):</th>
<th>Utilities (Days):</th>
<th>Roads (Days):</th>
<th>Total</th>
<th>Total Inflated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emergency Measures ($)</td>
<td>$200</td>
<td>$200</td>
<td>$6,000</td>
<td>$6,200</td>
</tr>
<tr>
<td>Repair Costs ($)</td>
<td>$6,000</td>
<td>$6,000</td>
<td>$6,000</td>
<td>$6,200</td>
</tr>
<tr>
<td>Total</td>
<td>$8,607</td>
<td>$8,607</td>
<td>$8,740</td>
<td>$8,740</td>
</tr>
</tbody>
</table>

**Damage Year: 2009**
- **RI:** 200.00
- **Are Damages In Current Dollars? No**

<table>
<thead>
<tr>
<th>Buildings (Days):</th>
<th>Utilities (Days):</th>
<th>Roads (Days):</th>
<th>Total</th>
<th>Total Inflated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emergency Measures ($)</td>
<td>$200</td>
<td>$200</td>
<td>$6,000</td>
<td>$6,200</td>
</tr>
<tr>
<td>Repair Costs ($)</td>
<td>$6,000</td>
<td>$6,000</td>
<td>$6,000</td>
<td>$6,200</td>
</tr>
<tr>
<td>Total</td>
<td>$8,607</td>
<td>$8,607</td>
<td>$8,872</td>
<td>$8,872</td>
</tr>
</tbody>
</table>

### Damages After Mitigation

**Damage Year: 2011**
- **RI:** 200.00
- **Are Damages In Current Dollars? Yes**

<table>
<thead>
<tr>
<th>Buildings (Days):</th>
<th>Utilities (Days):</th>
<th>Roads (Days):</th>
<th>Total</th>
<th>Total Inflated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emergency Measures ($)</td>
<td>$200</td>
<td>$200</td>
<td>$10,000</td>
<td>$10,200</td>
</tr>
<tr>
<td>Repair Costs ($)</td>
<td>$10,000</td>
<td>$10,000</td>
<td>$10,000</td>
<td>$10,200</td>
</tr>
<tr>
<td>Total</td>
<td>$12,607</td>
<td>$12,607</td>
<td>$12,807</td>
<td>$12,807</td>
</tr>
</tbody>
</table>

**Version:** 4.5.5
### Betts Bridge Road Culvert

**03 Oct 2011**

**Total Benefits:** $85,783  
**Total Costs:** $71,057  
**BCR:** 1.21

**Project Number:**  
**Disaster #:** DR-1951-VT  
**Program:** HMGP  
**Agency:** Town of Pawlet  
**State:** Vermont  
**Point of Contact:** Clarence Decker  
**Analyst:** Philip Picotte

#### Damage Year: 2008

- **Rt:**  
- **Are Damages In Current Dollars?** No  

<table>
<thead>
<tr>
<th>Road Type</th>
<th>Days</th>
<th>Costs ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Roads</td>
<td>2.0</td>
<td>$200</td>
</tr>
<tr>
<td>Repair Costs</td>
<td></td>
<td>$6,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td>$8,607</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Road Type</th>
<th>Costs ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total Inflated</strong></td>
<td>$9,009</td>
</tr>
</tbody>
</table>

#### Damage Year: 2007

- **Rt:**  
- **Are Damages In Current Dollars?** No  

<table>
<thead>
<tr>
<th>Road Type</th>
<th>Days</th>
<th>Costs ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Roads</td>
<td>2.0</td>
<td>$200</td>
</tr>
<tr>
<td>Repair Costs</td>
<td></td>
<td>$6,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td>$8,607</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Road Type</th>
<th>Costs ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total Inflated</strong></td>
<td>$9,300</td>
</tr>
</tbody>
</table>

#### Damage Year: 2006

- **Rt:**  
- **Are Damages In Current Dollars?** No  

<table>
<thead>
<tr>
<th>Road Type</th>
<th>Days</th>
<th>Costs ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Roads</td>
<td>2.0</td>
<td>$200</td>
</tr>
<tr>
<td>Repair Costs</td>
<td></td>
<td>$6,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td>$8,607</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Road Type</th>
<th>Costs ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total Inflated</strong></td>
<td>$9,476</td>
</tr>
</tbody>
</table>

---

Version: 4.5.5
<table>
<thead>
<tr>
<th>Damage Year: 2005</th>
<th>RI:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Are Damages In Current Dollars?</td>
<td>No</td>
</tr>
<tr>
<td>Buildings (Days):</td>
<td></td>
</tr>
<tr>
<td>Utilities (Days):</td>
<td></td>
</tr>
<tr>
<td>Roads (Days):</td>
<td>2.0</td>
</tr>
<tr>
<td>Emergency Measures ($)</td>
<td>$200</td>
</tr>
<tr>
<td>Repair Costs ($)</td>
<td>$6,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$8,607</strong></td>
</tr>
<tr>
<td><strong>Total Inflated</strong></td>
<td><strong>$9,895</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Damage Year: 2004</th>
<th>RI:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Are Damages In Current Dollars?</td>
<td>No</td>
</tr>
<tr>
<td>Buildings (Days):</td>
<td></td>
</tr>
<tr>
<td>Utilities (Days):</td>
<td></td>
</tr>
<tr>
<td>Roads (Days):</td>
<td>2.0</td>
</tr>
<tr>
<td>Emergency Measures ($)</td>
<td>$200</td>
</tr>
<tr>
<td>Repair Costs ($)</td>
<td>$6,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$8,607</strong></td>
</tr>
<tr>
<td><strong>Total Inflated</strong></td>
<td><strong>$10,244</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Damage Year: 2003</th>
<th>RI:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Are Damages In Current Dollars?</td>
<td>No</td>
</tr>
<tr>
<td>Buildings (Days):</td>
<td></td>
</tr>
<tr>
<td>Utilities (Days):</td>
<td></td>
</tr>
<tr>
<td>Roads (Days):</td>
<td>2.0</td>
</tr>
<tr>
<td>Emergency Measures ($)</td>
<td>$200</td>
</tr>
<tr>
<td>Repair Costs ($)</td>
<td>$6,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$8,607</strong></td>
</tr>
<tr>
<td><strong>Total Inflated</strong></td>
<td><strong>$10,736</strong></td>
</tr>
</tbody>
</table>
03 Oct 2011

Project: Betts Bridge Road Culvert

Total Benefits: $85,783
Total Costs: $71,057
BCR: 1.21

Project Number: Disaster #: DR-1951-VT  Program: HMGP
State: Vermont  Point of Contact: Clarence Decker
Agency: Town of Pawlet  Analyst: Phillip Picotte

Damage Year: 2002
RI:
Are Damages In Current Dollars? No
Buildings (Days):
Utilities (Days):
Roads (Days): 2.0

<table>
<thead>
<tr>
<th>Emergency Measures ($)</th>
<th>$200</th>
</tr>
</thead>
<tbody>
<tr>
<td>Repair Costs ($)</td>
<td>$6,000</td>
</tr>
<tr>
<td>Total</td>
<td>$8,607</td>
</tr>
<tr>
<td>Total Inflated</td>
<td>$10,935</td>
</tr>
</tbody>
</table>

### Summary Of Benefits

<table>
<thead>
<tr>
<th>Expected Annual Damages Before Mitigation</th>
<th>Expected Annual Damages After Mitigation</th>
<th>Expected Avoided Damages After Mitigation (Benefits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Annual: $6,976</td>
<td>Annual: $63</td>
<td>Annual: $6,913</td>
</tr>
<tr>
<td>Present Value: $86,565</td>
<td>Present Value: $782</td>
<td>Present Value: $85,783</td>
</tr>
</tbody>
</table>

Mitigation Benefits: $85,783
Benefits Minus Costs: $14,726

| Mitigation Costs: $71,057 | Benefit-Cost Ratio: 1.21 |

### Cost Estimate

<table>
<thead>
<tr>
<th>Project Useful Life (years): 30</th>
<th>Construction Type:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mitigation Project Cost: $68,575</td>
<td>Detailed Scope of Work: Yes</td>
</tr>
<tr>
<td>Annual Project Maintenance Cost: $200</td>
<td>Detailed Estimate for Entire Project: Yes</td>
</tr>
<tr>
<td>Final Mitigation Project Cost: $71,057</td>
<td>Years of Maintenance: 30</td>
</tr>
<tr>
<td>Cost Basis Year:</td>
<td>Present Worth of Annual Maintenance Costs: $2,482</td>
</tr>
<tr>
<td>Construction Start Year:</td>
<td>Estimate Reflects Current Prices: Yes</td>
</tr>
<tr>
<td>Construction End Year:</td>
<td>Project Escalation:</td>
</tr>
</tbody>
</table>

Version: 4.5.5
### Justification/Attachments

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
<th>Attachments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Additional Time per One-Way Trip</td>
<td>Based on condition of roads</td>
<td></td>
</tr>
<tr>
<td>Annual Project Maintenance Cost</td>
<td>Minimal maintenance required. Based on figure provided by FEMA DAE Richard Downer Ph.D., P.E.</td>
<td></td>
</tr>
<tr>
<td>Estimated Number of One-Way Traffic Trips Per Day</td>
<td>Estimate based on residences and businesses on road</td>
<td></td>
</tr>
<tr>
<td>Federal Rate</td>
<td>IRS mileage rate for July - December 2011.</td>
<td></td>
</tr>
<tr>
<td>Historic damages before mitigation</td>
<td>Historic damage information is based on demonstrated damage occurring from every spring melt and major rainstorms.</td>
<td></td>
</tr>
<tr>
<td>Mitigation Project Cost</td>
<td>Based on itemized contractor estimates.</td>
<td></td>
</tr>
<tr>
<td>Number of Additional Miles</td>
<td>Based on access from other end of road</td>
<td></td>
</tr>
<tr>
<td>Project useful life</td>
<td>The new concrete culvert has an expected life of 30 years per FEMA Default Useful Life.</td>
<td></td>
</tr>
<tr>
<td>Unknown Frequency - Damages after Mitigation</td>
<td>The mitigation action will eliminate regular damage and is sized to meet a 100-year event per VTrans hydraulics report.</td>
<td></td>
</tr>
<tr>
<td>User Input Analysis Duration</td>
<td>Based on recent history.</td>
<td></td>
</tr>
<tr>
<td>Year Built</td>
<td>Based on age of culvert</td>
<td></td>
</tr>
</tbody>
</table>
FEDERAL EMERGENCY MANAGEMENT AGENCY
HAZARD MITIGATION GRANTS PROGRAM
Obligation Report w/ Signatures

<table>
<thead>
<tr>
<th>Disaster No</th>
<th>FEMA Project No</th>
<th>Amendment No</th>
<th>State Application ID</th>
<th>Action No</th>
<th>Supplemental No</th>
<th>State</th>
<th>Grantee</th>
</tr>
</thead>
<tbody>
<tr>
<td>1951</td>
<td>2-R</td>
<td>0</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>VT</td>
<td>Statewide</td>
</tr>
</tbody>
</table>

Subgrantee: Walthamfield (Town of)
Subgrantee FIPS Code: 023-75325

Project Title: Walthamfield - Bank Stabilization Project

<table>
<thead>
<tr>
<th>Total Amount Previously Allocated</th>
<th>Total Amount Previously Obligated</th>
<th>Total Amount Pending Obligation</th>
<th>Total Amount Available for New Obligation</th>
</tr>
</thead>
<tbody>
<tr>
<td>$108,346</td>
<td>$108,345</td>
<td>$0</td>
<td>$0</td>
</tr>
</tbody>
</table>

Project Amount: $108,345
Grantee Admin Est: $0
Subgrantee Admin Est: $0
Total Obligation: $108,345
IFMIS Date: 01/30/2012
IFMIS Status: Y

Comments:
Date: 01/30/2012 User Id: RVERVL1
Comment: Obligation of $108,345 is approved by MA

Date: 01/30/2012 User Id: SLEYDON
Comment: Obligation of $108,345 is approved by HMO

Authorization:
Preparer Name: RICHARD VERVILLE
Preparation Date: 01/30/2012

HMO Authorization Name: STEPHANIE LEYDON
HMO Authorization Date: 01/30/2012

Authorizing Official Signature: [Signature]
Authorizing Official Title: Branch Chief
Authorization Date: 1/30/12

Page 1 of 1
<table>
<thead>
<tr>
<th>Projected</th>
<th>Total Allocated in NEMIS</th>
<th>Available</th>
<th>Total Obligated in NEMIS</th>
<th>Available</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A</td>
<td>B</td>
<td>C (A - B)</td>
<td>D</td>
</tr>
<tr>
<td>Regular Projects</td>
<td>$299,023</td>
<td>$108,345</td>
<td>$189,678</td>
<td>$108,345</td>
</tr>
<tr>
<td>Initiative Projects</td>
<td>$18,933</td>
<td>$0</td>
<td>$16,933</td>
<td>$0</td>
</tr>
<tr>
<td>Planning Projects</td>
<td>$23,706</td>
<td>$0</td>
<td>$23,706</td>
<td>$0</td>
</tr>
<tr>
<td>State Management Cost</td>
<td>$16,561</td>
<td>$0</td>
<td>$16,561</td>
<td>$0</td>
</tr>
<tr>
<td>TOTALS</td>
<td>$355,223</td>
<td>$108,345</td>
<td>$246,878</td>
<td>$108,345</td>
</tr>
</tbody>
</table>

For disasters declared on or after 11/13/2007:

HMGP Project funds = Regular Projects + Initiative Projects + Planning Projects.
State Management Cost is separate from the HMGP Project Funds.
### Project Title: Waitsfield - Bank Stabilization Project

#### Work Schedule Status

<table>
<thead>
<tr>
<th>Amend #</th>
<th>Description</th>
<th>Time Frame</th>
<th>Due Date</th>
<th>Revised Date</th>
<th>Completion Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Contractor Procurement</td>
<td>1 Month</td>
<td>00/00/0000</td>
<td>00/00/0000</td>
<td>00/00/0000</td>
</tr>
<tr>
<td>0</td>
<td>Survey and design</td>
<td>3 Months</td>
<td>00/00/0000</td>
<td>00/00/0000</td>
<td>00/00/0000</td>
</tr>
<tr>
<td>0</td>
<td>Permitting</td>
<td>2 Months</td>
<td>00/00/0000</td>
<td>00/00/0000</td>
<td>00/00/0000</td>
</tr>
<tr>
<td>0</td>
<td>Construction Documents</td>
<td>1 Month</td>
<td>00/00/0000</td>
<td>00/00/0000</td>
<td>00/00/0000</td>
</tr>
<tr>
<td>0</td>
<td>Bidding</td>
<td>1 Month</td>
<td>00/00/0000</td>
<td>00/00/0000</td>
<td>00/00/0000</td>
</tr>
<tr>
<td>0</td>
<td>Construction and buffer plantings</td>
<td>2 Months</td>
<td>00/00/0000</td>
<td>00/00/0000</td>
<td>00/00/0000</td>
</tr>
</tbody>
</table>

#### Approved Amounts

<table>
<thead>
<tr>
<th>Total Approved Net Eligible</th>
<th>Federal Share Percent</th>
<th>Total Approved Federal Share Amount</th>
<th>Non-Federal Share Percent</th>
<th>Total Approved Non-Fed Share Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>$144,460</td>
<td>75.000000000</td>
<td>$108,345</td>
<td>25.000000000</td>
<td>$36,115</td>
</tr>
</tbody>
</table>

#### Allocations

<table>
<thead>
<tr>
<th>Allocation Number</th>
<th>IFMIS Status</th>
<th>IFMIS Date</th>
<th>Submission Date</th>
<th>ES Support Req ID</th>
<th>ES Amend Number</th>
<th>Proj Alloc Amount Fed Share</th>
<th>Grantee Admin Amount</th>
<th>Subgrantee Admin Amount</th>
<th>Total Alloc Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>A</td>
<td>01/27/2012</td>
<td>01/25/2012</td>
<td>2012</td>
<td>2154660</td>
<td>$108,345</td>
<td>$0</td>
<td>$0</td>
<td>$108,345</td>
</tr>
</tbody>
</table>

#### Obligations

<table>
<thead>
<tr>
<th>Action Nr</th>
<th>IFMIS Status</th>
<th>IFMIS Date</th>
<th>Submission Date</th>
<th>ES Support Req ID</th>
<th>ES Amend Number</th>
<th>Suppl Nr</th>
<th>Project Obligated Amt - Fed Share</th>
<th>Grantee Admin Amount</th>
<th>Subgrantee Admin Amount</th>
<th>Total Obligated Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>A</td>
<td>01/30/2012</td>
<td>01/30/2012</td>
<td>2012</td>
<td>2156800</td>
<td>0</td>
<td>$108,345</td>
<td>$0</td>
<td>$0</td>
<td>$108,345</td>
</tr>
</tbody>
</table>

| Total     | $108,345     | $0         | $0              | $108,345          |
Record of Environmental Consideration


**Project Name/Number:** DR-1951 – VT Flood Hazard Mitigation Project – Bank Stabilization

**Project Location:** N 44.188889, W 72.8125 West Bank of the Mad River, Downtown Waitsfield, upstream of historic covered bridge

**Project Description:** Stabilize approximately 425 linear feet of the Mad River just upstream of an historic covered bridge by installing a bulk toe rock revetment, rip-rap and vegetated buffer along the actively eroding channel. Project will protect abutment of historic bridge as well as other buildings in the downtown historic district.

**Documentation Requirements**

☐ No Documentation Required (Review Concluded)

☐ (Short version) All consultation and agreements implemented to comply with the National Historic Preservation Act, Endangered Species Act, and Executive Orders 11988, 11990 and 12898 are completed and no other laws apply. (Review Concluded)

☒ (Long version) All applicable laws and executive orders were reviewed. Additional information for compliance is attached to this REC.

**National Environmental Policy Act (NEPA) Determination**

☐ Statutorily excluded from NEPA review. (Review Concluded)

☒ Categorical Exclusion - Category xvi Type Single Project

☒ No Extraordinary Circumstances exist.

Are project conditions required? ☒ Yes (see section V) ☐ No (Review Concluded)

☐ Extraordinary Circumstances exist (See Section IV).

☐ Extraordinary Circumstances mitigated. (See Section IV comments)

Are project conditions required? ☒ Yes (see section V) ☐ No (Review Concluded)

☐ Environmental Assessment required. See FONSI for determination, conditions and approval.

☐ Environmental Assessment required. See FONSI for determination, conditions and approval.

Comments: This project has been determined to be Categorically Excluded from the need to prepare either an Environmental Impact Statement or Environmental Assessment in accordance with 44 CFR Part 10.8(d)(2)(xv & xvi). Particular attention should be given to the project conditions before and during project implementation. Failure to comply with these conditions may jeopardize federal assistance including funding.
Reviewer and Approvals

FEMA Environmental Reviewer.
Name: Richard H. Verville

Signature __________________________, Date __________________________.

FEMA Regional Environmental Officer or delegated approving official.
Name: John P. Sullivan

Signature __________________________, Date __________________________.

I. Compliance Review for Environmental Laws (other than NEPA)

A. National Historic Preservation Act
☐ Not type of activity with potential to affect historic properties. (Review Concluded)
☒ Applicable executed Programmatic Agreement. 7/2011 Otherwise, conduct standard Section 106 review.
☐ Activity meets Programmatic Allowance # Appendix C III B & E
Are project conditions required? ☐ Yes (see section V) ☑ No (Review Concluded)

HISTORIC BUILDINGS AND STRUCTURES
☐ No historic properties 50 years or older in project area. (Review Concluded)
☒ Building or structure 50 years or older in project area and activity not exempt from review.
☐ Determination of No Historic Properties Affected (FEMA finding/SHPO/THPO concurrence on file)
Are project conditions required? ☐ Yes (see section V) ☑ No (Review Concluded)
☒ Determination of Historic Properties Affected (FEMA finding/SHPO/THPO concurrence on file)
☐ Property a National Historic Landmark and National Park Service was provided early notification during the consultation process. If not, explain in comments
☐ No Adverse Effect Determination (FEMA finding/SHPO/THPO concurrence on file).
Are project conditions required? ☐ Yes (see section V) ☑ No (Review Concluded)
☒ Adverse Effect Determination (FEMA finding/SHPO/THPO concurrence on file)
☐ Resolution of Adverse Effect completed. (MOA on file)
Are project conditions required? ☐ Yes (see section V) ☑ No (Review Concluded)

ARCHEOLOGICAL RESOURCES
☐ Project affects only previously disturbed ground. (Review Concluded)
☒ Project affects undisturbed ground.
☐ Project area has no potential for presence of archeological resources
☐ Determination of no historic properties affected (FEMA finding/SHPO/THPO concurrence on file). (Review Concluded)
☒ Project area has potential for presence of archeological resources
☒ Determination of no historic properties affected (FEMA finding/SHPO/THPO concurrence on file)
Are project conditions required? ☐ Yes (see section V) ☑ No (Review Concluded)
☐ Determination of historic properties affected
☐ NR eligible resources not present (FEMA finding/SHPO/THPO concurrence on file).
Are project conditions required? ☒ Yes (see section V) ☐ No (Review Concluded)
☐ NR eligible resources present in project area. (FEMA finding/SHPO/THPO concurrence on file)
☐ No Adverse Effect Determination. (FEMA finding/SHPO/THPO concurrence on file)
Are project conditions required? ☐ Yes (see section V) ☑ No (Review Concluded)
☐ Adverse Effect Determination. (FEMA finding/SHPO/THPO concurrence on file)
☐ Resolution of Adverse Effect completed. (MOA on file)
Are project conditions required? ☐ Yes (see section V) ☑ No (Review Concluded)

Record of Environmental Consideration 2 01/30/12
Billing Address: 

Comments: Refer to section V for conditions outlined by the Vermont Division for Historic Preservation in their letter dated January 23, 2012.

**B. Endangered Species Act**

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>☑ No listed species and/or designated critical habitat present in the action area.</td>
<td>(Review Concluded)</td>
<td></td>
</tr>
<tr>
<td>☑ Listed species and/or designated critical habitat present in the action area.</td>
<td>(Review Concluded)</td>
<td></td>
</tr>
<tr>
<td>☑ No effect to species or designated critical habitat.</td>
<td>(Review Concluded)</td>
<td></td>
</tr>
<tr>
<td>☑ May affect, but not likely to adversely affect species or designated critical habitat (FEMA determination/USFWS/NMFS concurrence on file)</td>
<td>(Review Concluded)</td>
<td></td>
</tr>
<tr>
<td>☑ Likely to adversely affect species or designated critical habitat</td>
<td>(Review Concluded)</td>
<td></td>
</tr>
<tr>
<td>☐ Formal consultation concluded. (Biological Assessment and Biological Opinion on file)</td>
<td>(Review Concluded)</td>
<td></td>
</tr>
</tbody>
</table>

Are project conditions required? ☑ YES (see section V) ☐ NO (Review Concluded)

**C. Coastal Barrier Resources Act**

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>☑ Project is not located in Coastal Barriers Resource System or Otherwise Protected Area.</td>
<td>(Review Concluded)</td>
<td></td>
</tr>
<tr>
<td>☑ Project does not affect a coastal barrier within the COBRA System (regardless of in or out)</td>
<td>(Review Concluded)</td>
<td></td>
</tr>
<tr>
<td>☐ Project is located in a coastal barrier system and/or affects a coastal barrier. (FEMA determination/USFWS consultation on file)</td>
<td>(Review Concluded)</td>
<td></td>
</tr>
<tr>
<td>☑ Proposed action an exception under Section 3505.a.6?</td>
<td>(Review Concluded)</td>
<td></td>
</tr>
<tr>
<td>☑ Proposed action not excepted under Section 3505.a.6.</td>
<td>(Review Concluded)</td>
<td></td>
</tr>
</tbody>
</table>

Are project conditions required? ☑ YES (see section V) ☐ NO (Review Concluded)

**D. Clean Water Act**

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>☑ Project site located outside of and would not affect any waters of the U.S.</td>
<td>(Review Concluded)</td>
<td></td>
</tr>
<tr>
<td>☑ Project site located in or would affect waters, including wetlands, of the U.S.</td>
<td>(Review Concluded)</td>
<td></td>
</tr>
<tr>
<td>☑ Project exempted as in kind replacement or other exemption.</td>
<td>(Review Concluded)</td>
<td></td>
</tr>
<tr>
<td>☑ Project may require Section 404/401/10 permit, including qualification under Nationwide Permits or Programmatic General Permit.</td>
<td>(Review Concluded)</td>
<td></td>
</tr>
</tbody>
</table>

Are project conditions required? ☑ YES (see section V) ☐ NO (Review Concluded)

**E. Coastal Zone Management Act**

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>☑ Project does not affect a coastal zone area (regardless of in or out)</td>
<td>(Review concluded)</td>
<td></td>
</tr>
<tr>
<td>☑ Project is not located in a coastal zone area</td>
<td>(Review concluded)</td>
<td></td>
</tr>
<tr>
<td>☑ Project is located in a coastal zone area and/or affects the coastal zone</td>
<td>(Review concluded)</td>
<td></td>
</tr>
<tr>
<td>☑ State administering agency does not require consistency review.</td>
<td>(Review Concluded)</td>
<td></td>
</tr>
<tr>
<td>☑ State administering agency requires consistency review.</td>
<td>(Review Concluded)</td>
<td></td>
</tr>
</tbody>
</table>

Are project conditions required? ☑ YES (see section V) ☐ NO (Review Concluded)

Record of Environmental Consideration: 3 01/30/12
**F. Fish and Wildlife Coordination Act**

- **☑ Project is not located in or affects a waterway/body of water.** *(Review Concluded)*
- **☐ Project affects, controls or modifies a waterway/body of water.**
  - **☐ Coordination with USFWS conducted**
  - **☐ No Recommendations offered by USFWS.** *(Review Concluded)*
  - **☐ Recommendations provided by USFWS.**

Are project conditions required?  ☐ YES (see section V)  ☐ NO *(Review Concluded)*

**Correspondence/Consultation/References:**

**G. Clean Air Act**

- **☑ Project will not result in permanent air emissions.** *(Review Concluded)*
- **☐ Project is located in an attainment area.** *(Review Concluded)*
- **☐ Project is located in a non-attainment area.**
  - **☐ Coordination required with applicable state administering agency.**

Are project conditions required?  ☐ YES (see section V)  ☐ NO *(Review Concluded)*

**Correspondence/Consultation/References:**

**H. Farmlands Protection Policy Act**

- **☒ Project does not affect prime or unique farmland.** *(Review Concluded)*
- **☐ Project causes unnecessary or irreversible conversion of prime or unique farmland.**
  - **☐ Coordination with Natural Resource Conservation Commission required.**
  - **☐ Farmland Conversion Impact Rating, Form AD-1006, completed.**

Are project conditions required?  ☐ YES (see section V)  ☐ NO *(Review Concluded)*

**Correspondence/Consultation/References:**

**I. Migratory Bird Treaty Act**

- **☐ Project not located within a flyway zone.** *(Review Concluded)*
- **☒ Project located within a flyway zone.**
  - **☒ Project does not have potential to take migratory birds.** *(Review Concluded)*
  - **☐ Project has potential to take migratory birds.**
  - **☐ Contact made with USFWS**

Are project conditions required?  ☒ YES (see section V)  ☒ NO *(Review Concluded)*

**Correspondence/Consultation/References:**

**J. Magnuson-Stevens Fishery Conservation and Management Act**

- **☒ Project not located in or near Essential Fish Habitat.** *(Review Concluded)*
- **☐ Project located in or near Essential Fish Habitat.**
  - **☐ Project does not adversely affect Essential Fish Habitat.** *(Review Concluded)*

**Correspondence/Consultation/References:**

**Record of Environmental Consideration**  4  01/30/12
Reviewer Name:

Applicant: Town of Waitsfield

Disaster/Emergency/Program/Project Title: DR-1951 VT - Flood Hazard Mitigation Project

- Project adversely affects Essential Fish Habitat (FEMA determination/USFWS/NMFS concurrence on file)
  - NOAA Fisheries provided no recommendation(s) (Review Concluded).
  - NOAA Fisheries provided recommendation(s)
    - Written reply to NOAA Fisheries recommendations completed.
- Are project conditions required? ☐ YES (see section V) ☐ NO (Review Concluded)

**Comments:**
**Correspondence/Consultation/References:**

**K. Wild and Scenic Rivers Act**
- Project is not along and does not affect Wild or Scenic River - (Review Concluded)
- Project is along or affects Wild or Scenic River
  - Project adversely affects WSR as determined by NPS/USFS. **FEMA cannot fund the action.**
  - (NPS/USFS/USFWS/BLM consultation on file)
  - Project does not adversely affect WSR. (NPS/USFS/USFWS/BLM consultation on file)
- Are project conditions required? ☐ YES (see section V) ☐ NO (Review Concluded)

**Comments:**
**Correspondence/Consultation/References:**

**L. Other Relevant Laws and Environmental Regulations**

**II. Compliance Review for Executive Orders**

**A. E.O. 11988 - Floodplains**
- Outside Floodplain and No Effect on Floodplains/Flood levels - (Review Concluded)
- Located in Floodplain or Effects on Floodplains/Flood levels
  - No adverse effect on floodplain or can be adversely affected by the floodplain. (Review Concluded).
  - Beneficial Effect on Floodplain Occupancy/Values (Review Concluded).
  - Possible adverse effects associated with investment in floodplain, occupancy or modification of floodplain environment
    - 8 Step Process Complete - documentation on file
- Are project conditions required? ☐ YES (see section V) ☐ NO (Review Concluded)

**Comments:** Per Flood Insurance Rate Map (FIRM) community and panel number 500120 0010D dated 09/05/1984, Washington County; the project is located within the Special Flood Hazard Areas (SFHA) (100-year floodplain).
**Correspondence/Consultation/References:**

**B. E.O. 11990 - Wetlands**
- Outside Wetland and No Effect on Wetland(s) - (Review Concluded)
- Located in Wetland or effects Wetland(s)
  - Beneficial Effect on Wetland - (Review Concluded)
  - Possible adverse effect associated with constructing in or near wetland
    - Review completed as part of floodplain review
    - 8 Step Process Complete - documentation on file
- Are project conditions required? ☐ YES (see section V) ☐ NO (Review Concluded)

**Comments:** Per Vermont Agency of Natural Resources- Natural Resource Atlas, accessed 12/12/2011 this project is not located in a wetland and will not affect wetland values or functions.
**Correspondence/Consultation/References:**

Record of Environmental Consideration 5 01/30/12
C. E.O. 12898 - Environmental Justice For Low Income and Minority Populations

☒ No Low income or minority population in, near or affected by the project - (Review Concluded)
☐ Low income or minority population in or near project area
☐ No disproportionately high and adverse impact on low income or minority population - (Review Concluded)
☐ Disproportionately high or adverse effects on low income or minority population
Are project conditions required? ☑ YES (see section V) ☐ NO (Review Concluded)

Comments:
Correspondence/Consultation/References:

III. Other Environmental Issues

Identify other potential environmental concerns in the comment box not clearly falling under a law or executive order (see environmental concerns scoping checklist for guidance).

Comments:
Correspondence/Consultation/References:

IV. Extraordinary Circumstances

Based on the review of compliance with other environmental laws and Executive Orders, and in consideration of other environmental factors, review the project for extraordinary circumstances.

* A "Yes" under any circumstance may require an Environmental Assessment (EA) with the exception of (ii) which should be applied in conjunction with controversy on an environmental issue. If the circumstance can be mitigated, please explain in comments. If no, leave blank.

Yes
☐ (i) Greater scope or size than normally experienced for a particular category of action
☐ (ii) Actions with a high level of public controversy
☐ (iii) Potential for degradation, even though slight, of already existing poor environmental conditions;
☐ (iv) Employment of unproven technology with potential adverse effects or actions involving unique or unknown environmental risks;
☐ (v) Presence of endangered or threatened species or their critical habitat, or archaeological, cultural, historical or other protected resources;
☐ (vi) Presence of hazardous or toxic substances at levels which exceed Federal, state or local regulations or standards requiring action or attention;
☐ (vii) Actions with the potential to affect special status areas adversely or other critical resources such as wetlands, coastal zones, wildlife refuge and wilderness areas, wild and scenic rivers, sole or principal drinking water aquifers;
☐ (viii) Potential for adverse effects on health or safety; and
☐ (ix) Potential to violate a federal, state, local or tribal law or requirement imposed for the protection of the environment.
☐ (x) Potential for significant cumulative impact when the proposed action is combined with other past, present and reasonably foreseeable future actions, even though the impacts of the proposed action may not be significant by themselves.

Comments:
V. Environmental Review Project Conditions

General comments:

1. If ground disturbing activities occur during implementation, the applicant will monitor excavation activity, and if any artifacts or human remains are found during the excavation process all work is to cease and the applicant will notify FEMA, Grantee, and SHPO/THPO.

2. The applicant must follow all applicable local, state, and federal laws, regulations, and requirements for the abatement and disposal of lead, asbestos, and other routinely encountered hazardous substances. If there is an unusual material encountered or there is an extraordinary amount of lead, asbestos, or other routinely encountered material the applicant must contact the Grantee and the Grantee must contact FEMA. The applicant must also contact the relevant agency with authority for regulation of the material.

3. If deviations from the proposed scope of work result in design changes, the need for additional ground disturbance, additional removal of vegetation, or result in any other unanticipated changes to the physical environment, the Grantee must contact FEMA, and a re-evaluation under NEPA and other applicable environmental laws will be conducted by FEMA.

Other Required Project Specific Conditions:

1. As long as the appropriate soil erosion/siltation control measures and the best management practices for roads and culverts (e.g. placing culvert inverts at or slightly below grade in the bed of the stream to accommodate fish passage, working during low flow summer periods, etc.) are utilized, harm to fish and wildlife will be minimized.

2. The applicant must seed, mulch, and replant any disturbed ground with native shrubs and vegetation. A special effort shall be made to plant native vegetation at higher bank elevations.

3. The applicant may be required to obtain any applicable permits with the Vermont Agency of Natural Resources and the U.S. Army Corps of Engineers prior to construction if this project will impact wetlands. All conditions of any permit acquired become conditions of this grant, and a copy of such permit(s) should be forwarded to FEMA.

4. Applicant must obtain floodplain permit or approval from the local floodplain administrator before work begins.

5. All project components will be assessed for the presence of archeological resources in the area of potential effect as defined on revised project plans.

6. The town of Waitsfield will hire a 36CFR-61 qualified consulting archeologist to complete the assessments. At a minimum, the qualified consulting archeologist shall conduct archeological resource assessments on all project components to identify any known sites and archeologically sensitive areas. Any such assessments must be reviewed and approved by the Division and all known sites and archeologically sensitive areas must be mapped and identified as not-to-be disturbed buffer zones.
7. Topsoil removal, grading, scraping, cutting, filling, stockpiling, logging or any other type of ground disturbance is prohibited within the buffer zones prior to construction unless the Town of Waitsfield completes appropriate archeological studies.

8. Archeological studies to identify or evaluate sites will be carried by a qualified consulting archeologist in all archeologically sensitive and known site areas to be impacted by the proposed project. The archeological studies will be scheduled early in the project so that mitigation measures that may be necessary can be satisfactorily planned and accomplished prior to construction.

9. All archeological studies and assessments must follow the Division’s Guidelines for Conducting Archeological Studies in Vermont. The Town of Waitsfield’s archeological consultant must submit any scope of work to the Division for review and approval.

10. Archeological sites within the project area will not be impacted until any necessary mitigation measures have been carried out. Mitigation may include but is not limited to further site evaluation, data recovery, redesign of one or more proposed project components, or specific conditions that may be imposed during construction, such as installation of construction barriers or protective matting etc.

11. Proposed mitigation measures will be discussed with and approved by the Division prior to implementation. The archeological studies will result in one or more final reports, as appropriate, that meet the Division’s Guidelines for Conducting Archeological Studies in Vermont.

12. Copies of all reports shall be submitted to the Town of Waitsfield and the Division for review and approval.

Monitoring Requirements:

Quarterly Reports and final inspection of scope of work, accounting records and copies of any easements and permits and reports are required.
January 23, 2012

Richard H. Verville
HMA Program Specialist
FEMA Region 1
99 High Street, 6th Floor
Boston, MA 02110

Re: FEMA DR 1951 VT- Mad River Stabilization Project, Waitsfield, Vermont. Hazard Mitigation Grant Program Section 106 Review.

Dear Mr. Verville:

Thank you for the opportunity to comment on the above-referenced project submitted for funding from the Hazard Mitigation Grant Program (HMGP) at the Federal Emergency Management Agency (FEMA). The following comments will assist FEMA in their review responsibilities under Section 106 of the National Historic Preservation Act.

The Division for Historic Preservation (Division) is providing FEMA with the following comments pursuant to 36 CFR 800.4, regulations established by the Advisory Council on Historic Preservation to implement Section 106 of the National Historic Preservation Act. Project review consists of identifying the project's potential impacts to historic buildings, structures, historic districts, historic landscapes and settings, and known or potential archeological resources.

The proposed project consists of stabilization of approximately 425 linear feet of eroding riverbank along the west bank of the Mad River upstream of the Waitsfield Covered Bridge. This project was originally one of two project components submitted for funding to the FEMA Pre-Disaster Mitigation Competitive Grant Program in 2010. The Division provided comments on the combined project on November 17, 2010. The combined project was not funded and the Town of Waitsfield separated out the stabilization component and began to pursue funding under the HMGP immediately prior to Tropical Storm Irene. The current project seeks HMGP funding to implement the bank stabilization more or less within the originally planned footprint which has been variously impacted by erosion associated with the tropical storm event.

Based on consultation with FEMA and Town of Waitsfield representatives over the past several days, the Division understands that the 2010 plans will be revised to fit the storm modified footprint. The Division also understands that funds to identify and mitigate any impacts to historic properties have been allocated in the current project budget.

Accordingly, the Division believes that this undertaking will have No Adverse Effect on any historic properties provided that the following actions are undertaken in accordance with 36 CFR 800.4a(ii) prior to any construction activity. This determination assumes that any adverse effects will be mitigated before project implementation:

1) All project components will be assessed for the presence of archeological resources in the Area of Potential Effect as defined on revised project plans.
October 13, 2011

Ms. Valerie Capels, Town Administrator
Town of Waitsfield
9 Bridge Street
Waitsfield, VT 05673

Dear Ms. Capels,

The State Mitigation Project Selection Subcommittee met recently to review grant applications for FEMA’s Hazard Mitigation Grant Program (HMGP) in connection with disaster DR 1951. I am pleased to inform you that the proposal for stream bank reinforcement at the Bridge Street Marketplace location has been selected and was forwarded to FEMA for their review and approval.

The next step in the process entails a full FEMA review of the technical aspects of the proposal as well as an environmental review. Once FEMA has concluded its final review and approval, the project must be submitted to the state’s Joint Fiscal Office in Montpelier for additional state review and concurrence. Once we receive the final FEMA and state approvals for the project, the town will be issued a sub-grant agreement and then work may proceed on the project. No work should begin on the project before the town has received all the final approvals from FEMA and the state’s Joint Fiscal Office. Also, all necessary state and federal permits must be in place before work can commence on the project.

Feel free to contact me at your convenience if you have any questions or concerns regarding the HMGP grant process.

Sincerely,

Ray Doherty, State Hazard Mitigation Officer
Vermont Emergency Management
103 South Main Street
Waterbury, VT 05671
Tel (802) 241-5258
Email rdoherty@dps.state.vt.us
## State of Vermont

### Hazard Mitigation Grant Program

#### Project Application

<table>
<thead>
<tr>
<th>FEMA- DR-</th>
<th>1951 VT</th>
<th>Date Submitted:</th>
<th>9/28/2011</th>
</tr>
</thead>
</table>

### Part 1: Applicant Information

- **Applicant Name:** Valerie Capels on behalf of the Town of Waitsfield
- **County:** Washington County

#### Name of Local Hazard Mitigation Plan:
- **Town of Waitsfield Pre Disaster Mitigation Plan**

#### Date of FEMA approval of Local Plan:
- **Sep-10**

### Primary Contact Information

- **Name:** Valerie Capels
- **Title:** Town Administrator
- **Organization:** Town of Waitsfield
- **Mailing Address:** 9 Bridge Street, Waitsfield, VT 05673
- **Work Phone Number:** 802-496-2218
- **Fax Number:** 802-496-3284

### Secondary Contact Information

- **Name:** Karl Dolan
- **Title:** River Corridor and Floodplain Manager
- **Organization:** Agency of Natural Resources
- **Mailing Address:** 103 South Main Street, Building 10N, Waterbury, VT 05671
- **Work Phone Number:** 802-241-1554
- **Fax Number:** 802-241-4537

### Part 2: Problem Description

- **Location of Project:**
  - **Latitude:** 44.188889
  - **Longitude:** -72.8125 (in decimals)

- **Identify adjacent roads/streets and bodies of water:** Bridge Street

- **Required Maps:**
  - Local General Highway Map (attached)
  - Flood Insurance Rate Map with panel number (attached)
  - Topographic Map (attached)

#### Problem Statement:
(What's Happening?)

The Mad River’s left bank is actively eroding as the river migrates laterally, threatening Historic Village District and State’s oldest currently functioning Covered Bridge. The August 2011 came very close to eroding around the covered bridge; that storm event eroded more of the streambank, damaging the ground and disturbing the foundation of one of the historical buildings along Bridge Street. The objective of this project is to prevent further channel migration that could permanently damage the historic village of Waitsfield and the oldest currently functioning covered bridge in Vermont.

#### Supporting Documentation:
- Photos
- Engineering Studies
- Site Diagrams
### Project Description

The preferred option involves the installation of a bulk toe rock revetment, riprap emplacement and buffer along the actively eroding stream bank. The engineering and technical design of this proposed project, developed by DeWolfe Engineering, completed the flooding design based on riverbed elevations and peak discharge data contained Waitsfield's current Flood Insurance Study (FIS) (please refer to Table 1 for discharge, flood frequency, and recurrence interval data at Drainage Area 78 sq. miles and Flood Profile of cross-sections V and W of the Flood Profile). The proposed project, if funded, will decrease damages to insurable structures, since it is designed to virtually eliminate acute streambank erosion from lateral stream channel migration and potential channel avulsion that are threatening the Historic village and abutments of the bridge.

### Expected Life of Project

The preferred option involves the installation of a bulk toe rock revetment, riprap emplacement and buffer along the actively eroding stream bank.

### Supporting Documentation:

- Photos
- Engineering Studies
- Site Diagrams

### Project Costs for Preferred Alternative

<table>
<thead>
<tr>
<th>Item</th>
<th>Unit Qty.</th>
<th>Unit Measurement</th>
<th>Unit Cost</th>
<th>Cost Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Please see attached itemized budget. Please note that the before mitigation damages in the Benefit/Cost Analysis (BCA) are based on certified information from the Waitsfield Village business owners located in the Bridge Street Marketplace. Those values are shown in the EXCEL spreadsheet used as supporting documentation for the BCA. Each of the four businesses provided before mitigation damages to the building, loss of content, and displacement costs. Landowners used the 1998 flood event to determine these damages. After mitigation damages were calculated using the FEMA-approved approach for using the BCA for bank stabilization projects designed to mitigate erosion hazards from flooding. FEMA Help Desk approved this approach. See attached documentation.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Project Cost Estimate</td>
<td>$144,460.00</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Summary of Project Costs

- **A**
  - Total Project Costs
  - **$144,460.00**

- **B**
  - FEMA Share (75% of Line A)
  - **$108,345.00**

- **C**
  - Local Share (25% of Line A)
  - Note: The sum of lines 1-3 must equal Line C
  - 1. Cash
  - **$36,115.00**
  - 2. In-Kind Service
  - 3. Other
  - **$36,115.00**

- **D**
  - Total Local Share (Equal to Line C)
  - **$36,115.00**

- **E**
  - Total Project Costs (Line B + Line D)
  - Note: Line A and D are equal
  - **$144,460.00**

Identify source of local non-federal match:

- State of Vermont Ecosystem Restoration Grant
September 28, 2011

Ray Doherty, State Hazard Mitigation Officer
Vermont Emergency Management
103 South Main Street
Waterbury, VT 05671

Re: Town of Waitsfield HMPG Application

Dear Mr. Doherty:

Please accept, on behalf of the Town of Waitsfield, the enclosed Hazard Mitigation Grant Program application for stabilization of approximately 425 feet of the eroding bank of the Mad River upstream from the 1833 Waitsfield Village Covered Bridge. Implementation of this project would significantly reduce acute flood-related erosion risk to an historic village area and project municipal infrastructure (Bridge Street, Waitsfield Town Office) as well as the Bridge Street Marketplace and neighboring properties.

Please let me know if you need additional information.

Respectfully,

Valerie Capels
Waitsfield Town Administrator

Enc.
Project Summary:

Project Number: 1  Disaster #: n/a  Program: HMGP  Agency: VT Agency of Natural Resources

Analyst: Karl Dolan

Point of Contact: Karl Dolan  Phone Number: 802-241-1554
Address: 103 South Main Street, Waterbury, Vermont, 05673
Email: kari.dolan@state.vt.us

Comments:

Structure Summary For:

Copy Of 20 Bridge Street-for DFA, 20 Bridge Street, Waitsfield, Vermont, 05673, Washington

Structure Type: Building  Historic Building: Yes  Contact: Four D & K Company
Benefits: $376,303  Costs: $158,656  BCR: 2.37

<table>
<thead>
<tr>
<th>Mitigation</th>
<th>Hazard</th>
<th>BCR</th>
<th>Benefits</th>
<th>Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drainage Improvement</td>
<td>Damage-Frequency Assessment</td>
<td>2.37</td>
<td>$376,303</td>
<td>$158,656</td>
</tr>
</tbody>
</table>

Copy Of 40 Bridge Street-for DFA, 40 Bridge Street, Waitsfield, Vermont, 05673, Washington

Structure Type: Building  Historic Building: Yes  Contact: Jason Birdy Ent.
Benefits: $0  Costs: $0  BCR: 0.00

<table>
<thead>
<tr>
<th>Mitigation</th>
<th>Hazard</th>
<th>BCR</th>
<th>Benefits</th>
<th>Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drainage Improvement</td>
<td>Damage-Frequency Assessment</td>
<td>0.00</td>
<td>$0</td>
<td>$0</td>
</tr>
</tbody>
</table>
Project: HMGP_Waitsfield Flood Mitigation  
Project Number: 1  
Disaster #: n/a  
Program: HMGP  
Agency: VT Agency of Natural Resources  
State: Vermont  
Point of Contact: Karl Dolan  
Analyst: Karl Dolan  

Total Benefits: $376,303  
Total Costs: $158,656  
BCR: 2.37

Mitigation Information

Basis of Damages: Expected Damages  
Number of Damage Events: 4  
Number of Events with Know Recurrence Intervals: 4

Expected Damages Before and After Mitigation

Analysis Year: 2010  
Analysis Duration: 0  
Utilities ($/day):  
Buildings ($/day): $0.00  
Roads/Bridges ($/day):  

Damages Before Mitigation

Damage Year:  
RI: 20.00  
Are Damages In Current Dollars? Yes  
Buildings (Days):  
Utilities (Days):  
Roads (Days):  
Maintenance ($) $0

Damages After Mitigation

RI: 20.00  
Are Damages In Current Dollars? Yes  
Buildings (Days):  
Utilities (Days):  
Roads (Days):  
Maintenance ($) $56,000
### Summary Of Benefits

<table>
<thead>
<tr>
<th></th>
<th>Expected Annual Damages Before Mitigation</th>
<th>Expected Annual Damages After Mitigation</th>
<th>Expected Avoided Damages After Mitigation (Benefits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Annual:</td>
<td>$48,726</td>
<td>$22,219</td>
<td>$26,507</td>
</tr>
<tr>
<td>Present Value:</td>
<td>$691,732</td>
<td>$315,429</td>
<td>$376,303</td>
</tr>
<tr>
<td>Mitigation Benefits:</td>
<td>$376,303</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Benefits Minus Costs:</td>
<td>$217,647</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**BCR:** 2.37
30 Sep 2011  

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
<th>Attachments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Analysis Year</td>
<td>Please refer to the document, particularly &quot;WaitsfieldVT_Final BCA Documentation of Steps Taken,&quot; &quot;FEMA BCA Helpline Inquiry on Erosion Control Project,&quot; and &quot;WaitsfieldVT_Final Calculations for BCA.&quot; See also, &quot;Waitsfield Mitigation Project Desc.&quot;</td>
<td>WaitsfieldVT_Final BCA Documentation on Steps Taken.pdf; FEMA BCA Helpline Inquiry Erosion Guidance.pdf; WaitsfieldVT_Transportation Values of Bridge Street Marketplace.pdf; Landowners.pdf; WaitsfieldVT_Final Calculations for BCA.pdf; WaitsfieldVT_BCA Report_before mitigation supporting documentation.pdf</td>
</tr>
<tr>
<td>Expected damages before mitigation</td>
<td>Please see the attachments for the description of the costs and justification for these expenses.</td>
<td>WaitsfieldVT_landowner documentation_4429 Main Street.pdf; WaitsfieldVT_landowner documentation_4403 Main Street.pdf; WaitsfieldVT_landowner documentation_50 Bridge Street.pdf; WaitsfieldVT_landowner documentation_40 Bridge Street.pdf; WaitsfieldVT_landowner documentation_20 Bridge Street.pdf</td>
</tr>
<tr>
<td>Unknown Frequency - Damages after Mitigation</td>
<td>Please see the attachments for the justification of the values in each field.</td>
<td>WaitsfieldVT_Final BCA Documentation on Steps Taken.pdf</td>
</tr>
</tbody>
</table>

Total Benefits: $376,303  
Total Costs: $158,656  
BCR: 2.37  

Project Number: 1  
Disaster #: n/a  
Program: HMGP  
Agency: VT Agency of Natural Resources  
State: Vermont  
Point of Contact: Kari Dolan  
Analyst: Kari Dolan
<table>
<thead>
<tr>
<th>Damage Year:</th>
<th>Building ($)</th>
<th>Total Inflated</th>
</tr>
</thead>
<tbody>
<tr>
<td>RI: 20.00</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td>Are Damages In Current Dollars? No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Buildings (Days):</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td>Utilities (Days):</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td>Roads (Days):</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td>Displacement ($)</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td>Content ($)</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td>Building ($)</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td>Total</td>
<td>$0</td>
<td>$0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Damage Year:</th>
<th>Building ($)</th>
<th>Total Inflated</th>
</tr>
</thead>
<tbody>
<tr>
<td>RI: 65.00</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td>Are Damages In Current Dollars? No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Buildings (Days):</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td>Utilities (Days):</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td>Roads (Days):</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td>Displacement ($)</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td>Content ($)</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td>Building ($)</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td>Total</td>
<td>$0</td>
<td>$0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Damage Year:</th>
<th>Building ($)</th>
<th>Total Inflated</th>
</tr>
</thead>
<tbody>
<tr>
<td>RI: 100.00</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td>Are Damages In Current Dollars? No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Buildings (Days):</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td>Utilities (Days):</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td>Roads (Days):</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td>Displacement ($)</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td>Content ($)</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td>Building ($)</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td>Total</td>
<td>$0</td>
<td>$0</td>
</tr>
</tbody>
</table>
### Project Details

- **Date:** 30 Sep 2011
- **Project:** HMGP Waitsfield Flood Mitigation
- **Module:** DFA Module
- **Project Number:** 1
- **Disaster #:** n/a
- **Program:** HMG
- **Agency:** VT Agency of Natural Resources
- **State:** Vermont
- **Point of Contact:** Karl Dolan
- **Analyst:** Karl Dolan

### Financials

- **Total Benefits:** $376,303
- **Total Costs:** $158,656
- **BCR:** 2.37

### Justification/Attachments

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
<th>Attachments</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Version: 1.5.5
### Project: HMGP_Waitsfield Flood Mitigation Project-DFA Module

<table>
<thead>
<tr>
<th>Total Benefits:</th>
<th>$376,303</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Costs:</td>
<td>$158,666</td>
</tr>
<tr>
<td>BCR:</td>
<td>2.37</td>
</tr>
<tr>
<td>Agency:</td>
<td>VT Agency of Natural Resources</td>
</tr>
<tr>
<td>Program:</td>
<td>HMGP</td>
</tr>
<tr>
<td>Disaster #:</td>
<td>n/a</td>
</tr>
<tr>
<td>Project Number:</td>
<td>1</td>
</tr>
<tr>
<td>State:</td>
<td>Vermont</td>
</tr>
<tr>
<td>Point of Contact:</td>
<td>Karl Dolan</td>
</tr>
<tr>
<td>Analyst:</td>
<td>Karl Dolan</td>
</tr>
</tbody>
</table>

#### Damage Year: RI: 20.00
- Are Damages In Current Dollars? No

| Buildings (Days): | 0 |
| Utilities (Days): | 0 |
| Roads (Days):     | 0 |

| Displacement ($) | 0 |
| Content ($)      | 0 |
| Building ($)     | 0 |

<table>
<thead>
<tr>
<th>Total</th>
<th>0</th>
</tr>
</thead>
</table>

| Total Inflated | 0 |

#### Damage Year: RI: 65.00
- Are Damages In Current Dollars? No

| Buildings (Days): | 0 |
| Utilities (Days): | 0 |
| Roads (Days):     | 0 |

| Displacement ($) | 0 |
| Content ($)      | 0 |
| Building ($)     | 0 |

<table>
<thead>
<tr>
<th>Total</th>
<th>0</th>
</tr>
</thead>
</table>

| Total Inflated | 0 |

#### Damage Year: RI: 100.00
- Are Damages In Current Dollars? No

| Buildings (Days): | 0 |
| Utilities (Days): | 0 |
| Roads (Days):     | 0 |

| Displacement ($) | 0 |
| Content ($)      | 0 |

| Total Inflated | 0 |
30 Sep 2011

Project: HMGP_Waitsfield Flood Mitigation
Project-DFA Module

Total Benefits: $376,303
Total Costs: $158,656

BCR: 2.37

Project Number: 1
Disaster #: n/a
Program: HMGP
Agency: VT Agency of Natural Resources

State: Vermont
Point of Contact: Karl Dolan
Analyst: Karl Dolan

Justification/Attachments

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
<th>Attachments</th>
</tr>
</thead>
</table>

Version: 4.5.6
<table>
<thead>
<tr>
<th>Damage Year:</th>
<th>RI: 20.00</th>
<th>Are Damages In Current Dollars? No</th>
<th>Buildings (Days):</th>
<th>Utilities (Days):</th>
<th>Roads (Days):</th>
<th>Displacement ($)</th>
<th>$0</th>
<th>Content ($)</th>
<th>$0</th>
<th>Building ($)</th>
<th>$0</th>
</tr>
</thead>
<tbody>
<tr>
<td>RI: 65.00</td>
<td>Are Damages In Current Dollars? No</td>
<td>Buildings (Days):</td>
<td>Utilities (Days):</td>
<td>Roads (Days):</td>
<td>Displacement ($)</td>
<td>$0</td>
<td>Content ($)</td>
<td>$0</td>
<td>Building ($)</td>
<td>$0</td>
<td></td>
</tr>
<tr>
<td>RI: 100.00</td>
<td>Are Damages In Current Dollars? No</td>
<td>Buildings (Days):</td>
<td>Utilities (Days):</td>
<td>Roads (Days):</td>
<td>Displacement ($)</td>
<td>$0</td>
<td>Content ($)</td>
<td>$0</td>
<td>Building ($)</td>
<td>$0</td>
<td></td>
</tr>
</tbody>
</table>
30 Sep 2011 Project: HMGP_Waitsfield Flood Mitigation

Project-DFA Module

Total Benefits: $376,303 Total Costs: $158,656

BCR: 2.37

Project Number: 1 Disaster #: n/a Program: HMGP Agency: VT Agency of Natural Resources

State: Vermont Point of Contact: Karl Dolan Analyst: Karl Dolan

Justification/Attachments

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
<th>Attachments</th>
</tr>
</thead>
</table>

Version 1.5.5
30 Sep 2011

**Project:** HMGP_Waitsfield Flood Mitigation
**Project-DFA Module**

<table>
<thead>
<tr>
<th>Building ($)</th>
<th>Total Inflated</th>
</tr>
</thead>
<tbody>
<tr>
<td>$0</td>
<td>$0</td>
</tr>
</tbody>
</table>

**Total Benefits:** $376,303  
**Total Costs:** $158,656

**BCR:** 2.37

**State:** Vermont  
**Point of Contact:** Karl Dolan

**Project Number:** 1  
**Disaster #:** n/a  
**Program:** HMGP  
**Agency:** VT Agency of Natural Resources

**Damage Year:**
**RI:** 20.00  
**Are Damages In Current Dollars?** No

<table>
<thead>
<tr>
<th>Buildings (Days):</th>
<th>$0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Utilities (Days):</td>
<td>$0</td>
</tr>
<tr>
<td>Roads (Days):</td>
<td>$0</td>
</tr>
<tr>
<td>Displacement ($)</td>
<td>$0</td>
</tr>
<tr>
<td>Content ($)</td>
<td>$0</td>
</tr>
<tr>
<td>Building ($)</td>
<td>$0</td>
</tr>
<tr>
<td>Total</td>
<td>$0</td>
</tr>
</tbody>
</table>

**Damage Year:**
**RI:** 65.00  
**Are Damages In Current Dollars?** No

<table>
<thead>
<tr>
<th>Buildings (Days):</th>
<th>$0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Utilities (Days):</td>
<td>$0</td>
</tr>
<tr>
<td>Roads (Days):</td>
<td>$0</td>
</tr>
<tr>
<td>Displacement ($)</td>
<td>$0</td>
</tr>
<tr>
<td>Content ($)</td>
<td>$0</td>
</tr>
<tr>
<td>Building ($)</td>
<td>$0</td>
</tr>
<tr>
<td>Total</td>
<td>$0</td>
</tr>
</tbody>
</table>

**Damage Year:**
**RI:** 100.00  
**Are Damages In Current Dollars?** No

<table>
<thead>
<tr>
<th>Buildings (Days):</th>
<th>$0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Utilities (Days):</td>
<td>$0</td>
</tr>
<tr>
<td>Roads (Days):</td>
<td>$0</td>
</tr>
<tr>
<td>Displacement ($)</td>
<td>$0</td>
</tr>
<tr>
<td>Content ($)</td>
<td>$0</td>
</tr>
<tr>
<td>Field</td>
<td>Description</td>
</tr>
<tr>
<td>-------------</td>
<td>-------------------</td>
</tr>
<tr>
<td>Total Benefits:</td>
<td>$376,303</td>
</tr>
<tr>
<td>Total Costs:</td>
<td>$158,656</td>
</tr>
<tr>
<td>Project Number:</td>
<td>1</td>
</tr>
<tr>
<td>Disaster #:</td>
<td>n/a</td>
</tr>
<tr>
<td>Program:</td>
<td>HMGP</td>
</tr>
<tr>
<td>Agency:</td>
<td>VT Agency of Natural Resources</td>
</tr>
<tr>
<td>State:</td>
<td>Vermont</td>
</tr>
<tr>
<td>Point of Contact:</td>
<td>Kari Dolan</td>
</tr>
<tr>
<td>Analyst:</td>
<td>Kari Dolan</td>
</tr>
</tbody>
</table>
November 19, 2010

Kari Dolan  
Vermont River Management Program  
Department of Environmental Conservation  
103 S. Main St., Building 10 North  
Waterbury, VT 05676

Subject: Mad River Bank Stabilization

Dear Kari:

It is estimated that the useful life of the bank stabilization is between 50 and 75 years. The determination of the useful life of the project assumed that current regulations for stormwater runoff from new development in the watershed are followed. Also that there are no significant changes to the hydraulics of the river section and that the project is constructed correctly.

If you have any questions please do not hesitate to contact me.

Sincerely,

David Frothingham
HI KARI SORRY FOR THE DELAY

1. DEPENDING ON THE SEASON LOSS WOULD BE 9 TO 15 THOUSAND PER WEEK IN GROSS REV.
2. THE ENTIRE FOUNDATION WAS DESTROYED AS WELL AS MUCH OF THE FIRST FLOOR. AMOUNT OF COST TO FIX. ???? I WILL ASK

1. SILENT PARTNER WITH NO INTEREST
2. BIRDY ENT.
3. 1845
4. BOTH
5. YES
6. SOME
7. CRAWL SPACE
8. NO
9. OWNER OCCUPIED
10.
11. NO
12. JAMESON AGENT MIDDLE OAK
13.
14.
15 NOT SURE WILL ASK

On Fri, Nov 12, 2010 at 10:52 AM, Dolan, Kari <Kari.Dolan@state.vt.us> wrote:
Can you provide me with this information ASAP? (I need to get the grant application to the Vermont Emergency Management by Nov 19th.) Thank YOU! I also need:
1. If a flood hits, what would be the “displacement” costs (per week or day) to your business.
2. Do you have any prior knowledge from the earlier owner what the impact to the business/structure was from the 1998 flood?
Thanks, Jason!!
Kari

From: Dolan, Kari
Sent: Wednesday, November 03, 2010 2:10 PM
To: 'caroline@birkephoto.com'; 'Craig Gois'; 'David Dar'; 'falline@yahoo.com'; Jason Gulisano; 'jeannie elias'; 'normabend@comcast.net'; 'sydney'
Cc: Joshua Schwartz; 'Caitrin Noel'; townadmin@madriver.com
Subject: Need information ASAP
Importance: High

Hi, Everyone,

Could you please provide me with the following:
1. Does this property have other co-owners or holders of recorded interest?
2. Exact ownership name
3. Age of your building? (year it was built)
3. Any documentation on registry of historic places;
4. ANY documentation of damage from flooding, such as in the 1998 flood. PLEASE!!! We need this in order to make it through the Benefit/Cost Analysis portion. We need documentation.
THANKS!!!!!!!!
We are trying to make the grant deadline. Kari

From: Jason Gulisano [jbirdgulisano@gmail.com]
Sent: Saturday, November 13, 2010 9:26 AM
To: Dolan, Karl
Subject: Re: FW: Need information ASAP

PROPERTY PARCEL ID 105001000. I THINK THAT IS WHAT YOU NEED OR THE SPAN # ON MY TAX BILL IS 675 - 214 - 10999
On Fri, Nov 12, 2010 at 10:52 AM, Dolan, Karl <Kari.Dolan@state.vt.us> wrote:
Can you provide me with this information ASAP? (I need to get the grant application to the Vermont Emergency Management by Nov 19th.) Thank YOU! I also need:
1. If a flood hits, what would be the “displacement” costs (per week or day) to your business.
2. Do you have any prior knowledge from the earlier owner what the impact to the business/structure was from the 1998 flood?
Thanks, Jason!!
Kari

From: Jason Gulisano [jbirdgulisano@gmail.com]
Sent: Tuesday, November 16, 2010 1:58 PM
To: Dolan, Karl
Subject: Re: I need your help!

THANKS KARI MY MONTHLY RENT INCOME IS 8900.00 $ TOTAL BOTTOM FLOOR CONTENT VALUE APPROX 500 THOUSAND. HOPE THIS HELPS AND I HOPE EVERY ONE CAN PULL THROUGH. THANK YOU SO MUCH FOR PUTTING THIS ALL TOGETHER. JASON

On Mon, Nov 15, 2010 at 9:08 PM, Dolan, Karl <Kari.Dolan@state.vt.us> wrote:

From: Jason Gulisano [jbirdgulisano@gmail.com]
Sent: Tuesday, November 16, 2010 1:51 PM
To: Dolan, Karl
Subject: Re: Information Needs for FEMA Grant...almost there!

total 8400 sq feet bottom floor 5800 sq feet
On Mon, Nov 15, 2010 at 7:27 PM, Dolan, Karl <Kari.Dolan@state.vt.us> wrote:
Kari,
My parcel number is 001004000, I don't see where I have a Property Tax ID number.
Pre Flood fair market value. Don't know -- after the flood my building was condemned and I purchased it
6 months later for $100,000.
Even though the flood only damaged the basement -- taking out the electrical and heating - so, I would
categorize the damage at 0-49%.

----Original Message-----
From: Dolan, Karl <Kari.Dolan@state.vt.us>
To: Dolan, Karl <Kari.Dolan@state.vt.us>; 'mschramke@aol.com' <mschramke@aol.com>
Sent: Mon, Nov 15, 2010 7:33 pm
Subject: RE: help....
And loss in rent....

From: Dolan, Kari
Sent: Monday, November 15, 2010 7:27 PM
To: 'mschramke@aol.com'
Subject: help....

Hi, Mary,
I know this is a bear, but we are so close. In addition to this information, I also need the square footage
of your building. Do you know that? Thanks. Deadline is this FRIDAY. Please provide me with this
information as soon as you can. Thanks!
Kari

Mary:
1. Age of your building (year it was built)
2. Parcel Number
3. Property Tax ID Number
4. Do you have flood insurance with the National Flood Insurance Program? Check with your insurance
carrier. If so, please provide policy number.
5. Pre-flood event Fair Market Value
6. Damage Category during 1998 flood (choices are: 0-49%, 50-99%, 100%, not applicable)
7. Square footage (for both floors)

Thanks for your help!
Kari

Kari Dolan
Vermont River Management Program
Department of Environmental Conservation
4. ANY documentation of damage from flooding, such as in the 1998 flood. PLEASE!!! We need this in order to make it through the Benefit/Cost Analysis portion. We need documentation.

THANKS!
Kari

--- Original Message ---
From: Dolan, Kari <Kari.Dolan@state.vt.us>
To: 'mschramke@aol.com' <mschramke@aol.com>
Sent: Wed, Nov 17, 2010 5:07 pm
Subject: FW: I need your help! please read

Hi, Mary,
Can you help with some of the outstanding questions, namely:
Thank you!!! Biggies are Fair Market Value and square footage, whether you have flood insurance and if so, what that number is. Thank you!!

Remaining Needs:
1. Fair Market Value of your property: need this from Jason and Mary and Valerie (town office);
2. Square footage of your building for entire building: I need this from everyone else;
3. If we had another 98 flood, what would be displacement costs, in $/month ideally; I need this from everyone Except Jason;
4. Building Contents costs, if possible; I could rely on default which is based on market value of the structures;
5. If we had another 98 flood, Loss of Rent ($/month);
6. ANY documentation from the 1998 flood! I only have hard evidence from Valerie. Help!
7. Age of your building (year it was built): I need this from Mary and Valerie;
8. Whether you have flood insurance with the national Flood Insurance Program? I need this from Mary and Valerie;
9. What is your insurance carrier? I need this from Mary and Valerie;
Documentation - Landowner: Bargerstock, 50 Bridge Street, Waitsfield, VT 05673

From: caroline@birkephoto.com
Sent: Tuesday, November 09, 2010 12:09 PM
To: Dolan, Kari
Subject: RE: Need information ASAP

Hi Karl,

Sorry, running a bit behind on this info. Please let me know what else I need to get to you.

Thanks for all your help!

Caroline
1. Does this property have other co-owners or holders of recorded interest? NO
2. Exact ownership name Caroline Bargerstock
3. Age of your building? (year it was built) 1904
4. Structure type: (residential; nonresidential): nonresidential
5. Does your building have a second floor? No
6. If so, it is being used for residential? NA
7. Basement type: basement, crawlspace, slab on grade, other (describe), VACANT LAND?
8. Basement? (yes or no)
9. Type of residence (not applicable, other, owner occupied—primary residence, owner-occupied—secondary residence, rental)
10. Property Tax ID number?
11. Does this property have a NFIP Policy Number? If so, please provide number:
   87047104072910
12. Insurance Company: MiddleOak
13. Fair Market Value of the property (Valerie — would you have this information in the Tax Records or Grand List?) $51,000
14. A letter accepting responsibility for any future maintenance of the project. See attached letter. Please sign and mail to me ASAP; I will scan it in.
15. ANY documentation of damage from flooding, such as in the 1998 flood. I don't have any documentation.

From: Neil Ryan [neilmadsenryan@gmail.com]
Sent: Thursday, November 18, 2010 1:39 PM
To: Dolan, Karl
Subject: Resend of Caroline's information

Hi Karl,

Here are outstanding answers and a revision to age of building. We need clarity on what proof of maintenance means. Please let me know if you have questions.

Thanks,

Caroline

Remaining Needs:
Hi, Norm,

Can you please provide me with the following information ASAP? I am trying to finish this grant application, and we absolutely need your information. See Craig Goss' response, but I believe his response is for the Catamount Building and not 4403 Main Street, which I believe is your property?

Thank you!

Kari

1. Does this property have other co-owners or holders of recorded interest? No
2. Exact ownership name: The Abend Family Limited Partnership
3. Age of your building? (year it was built): Early 1800's
4. Structure type: (residential; nonresidential): Non Residential
5. Does your building have a second floor? Yes
6. If so, it is being used for residential? No
7. Basement type: basement, crawlspace, slab on grade, other (describe), VACANT LAND? Slab on Grade
8. Basement? (yes or no) No
9. Type of residence (not applicable, other, owner occupied —primary residence, owner-occupied— secondary residence, rental): N. A.
10. Property Tax ID number: 04-3514402
11. Does this property have a NFIP Policy Number? If so, please provide number: # 1478825010
12. Insurance Company: NGM Insurance Company
13. Fair Market Value of the property, prior to 1998 flood, if possible: $400,000-500,000 estimate
14. Any documentation of damage from flooding, such as in the 1998 flood? No
15. Displacement Costs: If a flood hits, what would be the “displacement” costs (per week or day) to your business: $200/day est.

From: Norman Abend [normabend@comcast.net]
Sent: Tuesday, November 16, 2010 11:49 AM
To: Dolan, Kari
Subject: RE: I need your help!
The answers below are keyed to your list below.
4. 10,000 s.f. +/-
5. $7000/mo.
From: Norman Abend [normabend@comcast.net]
Sent: Tuesday, November 16, 2010 3:02 PM
To: Dolan, Karl
Subject: • RE: I need your help!-quick question

The ground floor is about 40% of the total

From: normabend@comcast.net
Sent: Wednesday, November 03, 2010 6:53 PM
To: Dolan, Karl; 'caroline@birkephoto.com'; Craig Goss; David Darr; CHRIS
PIERSON; Jason Gulisano; Jeannie elias; Sydney Rose Abend
Cc: 'Joshua Schwartz'; 'Caitrin Noel'; valerie capels
Subject: • Re: Need information ASAP

The following responses refer by number to your questions:

1. No
2. The abend family lp
3. Early 1800's ??
4. Wood, non-residential
5. Yes
6. No
7. Slab
8. No
9. Not applicable
10. 04-3514402
11. Can't get that till I get back
12. Same as #11
13. Assessed value or less
14. See my earlier response today to your email on maintenance
15. Owner only since 2007...don't have any such documentation.

Norm
No; there are 3 floors. The first I believe is 1200 sq ft. My records are at home so that’s the best I can do at the moment.

Do you know the square footage of the first floor only? Would it be half of 3000?

Thanks,
Kari

Kari Dolan
Vermont River Management Program
Department of Environmental Conservation
103 South Main Street, Building 10 North
Waterbury, VT 05671
Ph: (802) 241-1262
Fx: (802) 241-4537
kari.dolan@state.vt.us

Hi Kari:

- Catamount Building approximately 3000 square feet total
- In the 98 flood we lost only the use of our ground floor. Per month that totaled approximately $900 in lost income in addition to damages (which I don’t think are counted in the displacement figure?). A similar flood now would cost us at least $1000/month.
- Building contents are difficult to estimate. If you include tenant contents it would be a big number for us given that Channel 44 operates out of our ground floor. I don’t have any idea how much equipment is there – would have to ask Alex Maclay.
Karl:

Jeannie sensibly suggests that what you may be looking for is a statement of annual income for the Catamount building vs individual tenants. If yes, I can send you those figures later tonight.

---

Hi Karl:

- Slab foundation
- Catamount Building repair costs from the 1998 flood totaled $8,806.93 for the period Jan-Dec 1998. These are physical repairs only and do not count the lost income we experienced as a result of having our ground floor vacant for approximately 1.5 years. Also note that I wasn't the sole owner of the building at the time and did not maintain financial records so I'm not sure how accurate this is. My recollection is that repairs and lost income totaled approximately ~$40,000. We had no flood insurance at the time so this was all out of pocket. I would expect displacement costs to be higher in the event of another similar flood. Again it depends on the degree of damage and lost income.
- My policy shows ref num 14788017262009 but not sure that is NFIP.
- 0-49% assuming you mean percentage of the building that had to be repaired/replaced.
RE: Unquantified but real values associated with transportation and parking in Bridge Street, the location of the proposed project.

Below are excerpts from the 2006 Transportation Study of this area. These excerpts represent the value that this area provides in terms of: (a) parking: 82 spaces — 68 in the Bridge Street Marketplace, 2 additional spaces by the buildings, and 12 spaces on Bridge Street; and, (b) traffic circulation utilizing Bridge Street and the Covered Bridge.

Pg. E2: “Special events (which mostly occur during weekends) can overwhelm the parking supply at the Village’s core around the VT 100-Bridge Street intersection ...”

Parking:
On the Left: Pg. E4: “Bridge Street Marketplace Lot. The Bridge Street Market Place is arguably the most important parking facility in the Village.” On the Right: Pg. 36, Figure 20: Parking Inventory.
Introduction
The Town of Waitsfield is a small, rural, residential and tourism-based community located in the southwestern portion of Washington County. Waitsfield is located in the heart of the 143 sq mile Mad River Watershed, which drains in a northerly direction into the Winooski River and ultimately into Lake Champlain.

The project area is in Waitsfield's historic village ("Village"), which is listed on the Federal Register of Historic Places. It is also a Designated Village Center through the Vermont Downtown Program. It consists of a number of historic structures built in very close proximity to the Mad River, a covered bridge over the Mad River, and a municipal building that serves as the town offices and library. The Waitsfield Covered Bridge is the oldest operating covered bridge in Vermont. The Village serves as a regional hub for multiple uses, including civic, retail, restaurants, condominiums, homes, other businesses, and even agriculture.

In May of 2010, the town of Waitsfield took proactive steps to protect the stream corridor by adopting both a fluvial erosion hazard (FEH) ordinance and an enhanced flood hazard ordinance using the FEH maps produced from geomorphic assessments. This effort was identified as a top priority in both the 2008 Upper Mad River Corridor Plan and the 2007 Fluvial Geomorphic Assessment of the Mad River Watershed report. Waitsfield recognized that protecting floodplain and river corridor function provides flood storage, mitigates flood hazards and enhances water quality. Mapping support from the Central Vermont Regional Planning Commission was possible due to a prior PDMC Planning Grant.

Description of Waitsfield Flood Hazard Mitigation Project
Waitsfield Vermont is seeking a Hazard Mitigation Grant Program (HMGP) grant from the Federal Emergency Management Agency (FEMA) to implement a flood mitigation project. The project is designed to significantly reduce the risk of erosion-related flood damages to the historic Waitsfield Village area with a Covered Bridge. The proposed project will stabilize approximately 425 linear feet of the eroding bank upstream of the Covered Bridge by reinforcing and ripraping the eroding bank and installing riparian vegetation.

Goals and Objectives of the Proposed Activity
The primary goal of this project is flood mitigation, designed to reduce or eliminate risk to people and property from flood-related erosion hazards and their impacts. Implementation of this project would significantly reduce acute flood-related erosion risk to an historic village area and would protect the Waitsfield town offices, marketplace area and a well-traversed road that connects several rural communities. The town was able to determine where the hazards are of greatest concern and identified specific measures needed to reduce the severity of existing hazards; this project accomplishes these objectives. These mitigation objectives include avoiding flood damage from bank erosion and bank retreat and channel avulsion through the Historic District, which could damage the bridge abutment of the Covered Bridge. The proposed project seeks to stabilize approximately 425 linear feet of the eroding bank upstream of the Covered Bridge by reinforcing and ripraping the eroding bank and installing a riparian buffer. The project combines flood...
Alternatives Analysis
Flooding is Waitsfield’s most common type of natural disaster. The town took proactive steps to reduce flood hazards town-wide by passing floodplain and river corridor bylaws that prohibit new development in these areas. Because the Waitsfield historic Village was built on the banks of the Mad River to take advantage of stream power for milling, the Historic Village was exempt from the FEH restrictions. However, the new flood hazard bylaws for the Historic Village do require freeboard, and exempt critical facilities from the 500-year floodplain.

The option to rock armor the bank and install a vegetated buffer is a long-term solution that provides the most mitigation benefit. This project, in combination with its new flood hazard and Fluvial Erosion Hazard bylaws, addresses the flood hazards directly. This project directly protects the bank and Village from the stormflows — the source of the flood damages. This is the preferred option.

The “do-nothing” alternative would maintain the vulnerability of the Historic Village to flood hazards. Businesses and residents are facing unacceptable risk to flood damages. By doing nothing, these historic buildings and town offices would remain vulnerable to catastrophic flood damages.

Another alternative — moving the Historic Village away for this vulnerable area — is not feasible. This option is cost-prohibitive, ignores the historic features of the buildings in this area, and would disrupt the economic well-being of the commercial enterprises located there. A final option, elevating or floodproofing the buildings, does not address the flood-related fluvial erosion hazards, which is the fundamental problem that is causing the stream channel instability, threatening property damages, threatening the Covered Bridge, and heightening concerns of public safety in this location.

Timetable
Please refer to the Attached Stabilization Timetable, referred to as: “WaitsfieldVt_Flood control project_timeline1.pdf.”
HMGP 2011 Grant Proposal
Project: Waitsfield Flood Hazard Mitigation Project
Waitsfield Historic Village, Vermont

Legend

HMGP Bank Stabilization Location

FLOODWAY

☐ FLOODWAY

☐ 100 Year Floodplain

Parcel Boundaries

Buildings in the Historic Waitsfield Village District that are Part of Proposed Flood Hazard Mitigation Project

Map created on 08/05/2011
2009 NAIP Orthophotography

140 70 0 140 Feet

1" = 150 ft
This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT Online. This map does not reflect changes or amendments which may have been made subsequent to the date on this title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at www.msc.fema.gov
the production of agricultural products and dairy farming. The Town of Waitsfield developed along the banks of the Mad River, which was used as an early source of power. Today, Waitsfield has some light industry, tourism and skiing facilities.

Waitsfield has a land area of approximately 26.5 square miles and is mostly woodland. Residential development is expected to increase as the population of the town increases.

The topography of the area is mountainous, with narrow flood plains and high stream banks. Rapid runoff occurs as a result of the steep terrain. Soils in the forested areas of Waitsfield have medium to very rapid surface runoff, contributing to increased flood flow in the streams. The cleared areas along the Mad River and the upland area of Waitsfield Common have very slow to medium runoff.

The climate of the area is typical of northern New England and is characterized by cool summers and cold winters. Normal summer temperatures are in the low 70s degrees Fahrenheit (°F), while winter temperatures can fall to well below zero °F. The average annual precipitation is over 40 inches.

The Mad River, which flows north through the western portion of Waitsfield, originates in the upland areas of Grainville to the south and drains the valley between Northfield and Green Mountains before flowing into the Winooski River. Shepard and Mill Brooks originate in the Town of Fayston to the west and flow into the Mad River. Charles Folsom Brook originates in the Northfield Mountains in southeastern Waitsfield and flows into the Mad River.

Flood plains within the community are used primarily for agriculture. Most of the older commercial and residential structures are built on higher ground, away from flooding sources, except in some areas in central Waitsfield. Most developing areas are located on areas of high ground, but an increasing number of residences are being built in flat areas near the river.

2.3 Principal Flood Problems

Low-lying areas of Waitsfield are subject to periodic flooding caused by the overflow of the Mad River and its tributaries. Historically, the most severe flooding has occurred in the summer and fall, although flooding may occur at any time during the year. Severe floods occurred in 1830, 1850, 1858 and 1869. Severe floods have also occurred in 1927, 1936, 1947, 1971, 1973 and 1976 with recurrence intervals of 0.68 percent, 1.6 percent, 11 percent, 15 percent and 4.5 percent,
Engineer's Opinion of Probable Construction Cost
Prepared by DeWolfe Engineering Associates, Inc.

JOB DATA:
Project #: 10179
Project: Mad River Bank Stabilization
Description: Project estimate by major task
Engineer: DLF

Date: September 28, 2011
Location: Waitsfield, Vermont

<table>
<thead>
<tr>
<th>VAOT Item #</th>
<th>Item Description</th>
<th>Unit</th>
<th>$</th>
<th>Est. Qty</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>201.15</td>
<td>Removal of Medium Trees and Stumps</td>
<td>each</td>
<td>$673.60</td>
<td>11.00</td>
<td>$6,311</td>
</tr>
<tr>
<td>203.15</td>
<td>Common Excavation</td>
<td>C.Y.</td>
<td>$7.09</td>
<td>658.00</td>
<td>$4,606</td>
</tr>
<tr>
<td>613.12</td>
<td>Type IV Stone Fill</td>
<td>C.Y.</td>
<td>$41.64</td>
<td>877.00</td>
<td>$36,518</td>
</tr>
<tr>
<td></td>
<td><strong>Materials</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>649.31</td>
<td>Geotextile Under Stone Fill</td>
<td>S.Y.</td>
<td>$1.98</td>
<td>1160.00</td>
<td>$2,274</td>
</tr>
<tr>
<td>208.40</td>
<td>Cofferdam &amp; Erosion Control</td>
<td>L.S.</td>
<td>$42,000.00</td>
<td>1.00</td>
<td>$42,000</td>
</tr>
<tr>
<td></td>
<td><strong>Incidentals</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>635.11</td>
<td>Mobilization/Demobilization</td>
<td>L.S.</td>
<td>$14,400.00</td>
<td>1.00</td>
<td>$14,400</td>
</tr>
<tr>
<td>653.55</td>
<td>Project Demarcation Fence</td>
<td>L.F.</td>
<td>$1.48</td>
<td>542.00</td>
<td>$802</td>
</tr>
<tr>
<td></td>
<td><strong>Permitting</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>US Army Corp. of Engineers (Senior Engineer)</td>
<td>Hourly</td>
<td>$118.00</td>
<td>8.00</td>
<td>$944</td>
</tr>
<tr>
<td></td>
<td>US Army Corp. of Engineers (Staff Engineer)</td>
<td>Hourly</td>
<td>$70.00</td>
<td>8.00</td>
<td>$420</td>
</tr>
<tr>
<td></td>
<td>VT Stream Alteration Permit (Senior Engineer)</td>
<td>Hourly</td>
<td>$118.00</td>
<td>8.00</td>
<td>$944</td>
</tr>
<tr>
<td></td>
<td>VT Stream Alteration Permit (Staff Engineer)</td>
<td>Hourly</td>
<td>$70.00</td>
<td>8.00</td>
<td>$420</td>
</tr>
<tr>
<td></td>
<td>FEMA Floodplain Management Cert. of No-Rise (Senior Engineer)</td>
<td>Hourly</td>
<td>$118.00</td>
<td>50.00</td>
<td>$5,900</td>
</tr>
<tr>
<td></td>
<td><strong>Bid Documents</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Contract Specifications (Senior Engineer)</td>
<td>Hourly</td>
<td>$118.00</td>
<td>5.00</td>
<td>$590</td>
</tr>
<tr>
<td></td>
<td>Contract Specifications (Staff Engineer)</td>
<td>Hourly</td>
<td>$70.00</td>
<td>14.00</td>
<td>$980</td>
</tr>
<tr>
<td></td>
<td>Front End Documents (Senior Engineer)</td>
<td>Hourly</td>
<td>$118.00</td>
<td>4.00</td>
<td>$472</td>
</tr>
<tr>
<td></td>
<td>Front End Documents (Staff Engineer)</td>
<td>Hourly</td>
<td>$70.00</td>
<td>6.00</td>
<td>$420</td>
</tr>
<tr>
<td></td>
<td>Printing</td>
<td></td>
<td>$275.00</td>
<td>1.00</td>
<td>$275</td>
</tr>
<tr>
<td></td>
<td><strong>Construction Administration</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Pre-Bid Meeting (Senior Engineer)</td>
<td>Hourly</td>
<td>$118.00</td>
<td>4.00</td>
<td>$472</td>
</tr>
<tr>
<td></td>
<td>Contract Start Up (Senior Engineer)</td>
<td>Hourly</td>
<td>$118.00</td>
<td>4.00</td>
<td>$472</td>
</tr>
<tr>
<td></td>
<td>Construction Site Visits (Senior Engineer)</td>
<td>Hourly</td>
<td>$118.00</td>
<td>24.00</td>
<td>$2,832</td>
</tr>
<tr>
<td></td>
<td>Final Inspection &amp; Punch lists (Senior Engineer)</td>
<td>Hourly</td>
<td>$118.00</td>
<td>8.00</td>
<td>$704</td>
</tr>
<tr>
<td></td>
<td>Mileage</td>
<td>Miles</td>
<td>$0.55</td>
<td>460.00</td>
<td>$249</td>
</tr>
<tr>
<td></td>
<td><strong>Construction Subtotal(20% Contingency)</strong></td>
<td></td>
<td></td>
<td></td>
<td>$128,384</td>
</tr>
<tr>
<td></td>
<td>Permitting Subtotal</td>
<td></td>
<td></td>
<td></td>
<td>$8,628</td>
</tr>
<tr>
<td></td>
<td>Bid Documents Subtotal</td>
<td></td>
<td></td>
<td></td>
<td>$2,737</td>
</tr>
<tr>
<td></td>
<td>Construction Administration</td>
<td></td>
<td></td>
<td></td>
<td>$4,732</td>
</tr>
<tr>
<td></td>
<td><strong>Total Estimated Construction Cost</strong></td>
<td></td>
<td></td>
<td></td>
<td>$144,460</td>
</tr>
</tbody>
</table>
MAD RIVER BANK STABILIZATION
WAITSFIELD VILLAGE, VERMONT

PROJECT DESCRIPTION
THE PROJECT CONSISTS OF RECONSTRUCTION AND LANDING AREA OF THE SOUTH BANK OF THE MAD RIVER IN THE VILLAGE OF WAITSFIELD, VERMONT. THE PROJECT IS TO BE LOCATED IN THE NORTH BANK OF THE MAD RIVER IN AN EASTERLY DIRECTION (TOWARDS THE COVERED BRIDGE) IN A POINT WHERE THE RIVER IS IN GOOD COND. THE CONTRACTOR IS TO REMOVE EXISTING SOD AND PLACE INSTEAD TYPE III STONE FILL AS SHOWN ON THE DESIGNED CROSS SECTIONS.

DATE: OCT 2010

SHEET 1 OF 7
<table>
<thead>
<tr>
<th>NO.</th>
<th>DATE</th>
<th>REASON</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**NORTH BANK OF MAD RIVER WAITSFIELD VILLAGE, WAITSFIELD, VERMONT**

---

**Construction Details**

- **Bear Creek Environmental**
- **Mad River Bank Stabilization**

---

**Diagram Description**

- Sections and views of the construction site with annotations for various components and measurements.

---

**Additional Notes**

- Specific details about the construction process, materials used, and environmental considerations.
Figure 2. Grasses and erosion at top of bank
(10/5/10 M. Nealon)

Figure 3. Fallen box elder that will need to be removed
(10/5/10 M. Nealon)

Figure 4. Yellow birch tree, red oak sapling and
Japanese knotweed at top of bank (10/5/10 M. Nealon)
Photographs of digital images that show the vegetation in context of its surroundings. The proposed bank stabilization project is located on the north bank (right side looking upstream) above the historic covered bridge in Waitsfield Village (Figure 6). Just below the bridge is a popular swimming hole. The riparian buffer on the north side is bounded by a parking lot (Figures 7 through 9), and the Mad River path runs through the buffer.

Figure 6. Looking upstream from the historic covered bridge (8/30/10 M. Nealon)

Figure 7. Mad River path adjacent to parking lot in buffer on north side of channel (8/30/10 M. Nealon)
Karl,

I have inspected the eroding bank on the Mad River in Waitsfield just upstream of the covered bridge. The streambank stabilization project as shown on the plans prepared by DeWolfe Engineering will not result in any encroachment beyond the limits of the bank that existed just prior to the most recent flood event nor past the limits that existed at the time of adoption of the effective Flood Hazard Study for the Town of Waitsfield.

Therefore, there should be no change in the effective discharge, water surface elevation, or floodway or flood plain delineations.

Barry Cahoon, P.E.
River Management Engineer
Department of Environmental Conservation
barry.cahoon@state.vt.us
802-751-0129

From: Dolan, Karl
Sent: Friday, October 29, 2010 2:46 PM
To: Cahoon, Barry
Subject: RE: Waitsfield bank stabilization project

Hi, Barry,

Can you provide me with that information for the FEMA PDMC grant?

(1) A technical evaluation ought to suffice; i.e., that the armored bank will not extend beyond the limits of the bank as it existed prior to the most recent flood event nor beyond that which existed at the time the effective study was done.

Thank you!!! I need to finish up this grant by November 8th, so any assistance would be great

Kari
Kari Dolan
Planning and Policy Coordinator
Vermont River Management Program
Department of Environmental Conservation
103 South Main Street, Building 10 North
Waterbury, VT 05671
Ph: (802) 241-1262
Fx: (802) 241-4537
kari.dolan@state.vt.us
A summary of the drainage area-peak discharge relationships for the streams studied by detailed methods is shown in Table 1, "Summary of Discharges."

**TABLE 1 - SUMMARY OF DISCHARGES**

<table>
<thead>
<tr>
<th>FLOODING SOURCE AND LOCATION</th>
<th>DRAINAGE AREA (sq. miles)</th>
<th>PEAK DISCHARGES (cfs)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>10-YEAR</td>
<td>50-YEAR</td>
</tr>
<tr>
<td><strong>MAD RIVER</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>At Waitsfield-Moretown</td>
<td>114</td>
<td>9,200</td>
</tr>
<tr>
<td>corporate limits</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Upstream of confluence of</td>
<td>96</td>
<td>8,000</td>
</tr>
<tr>
<td>Shepard Brook</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Upstream of confluence of</td>
<td>88</td>
<td>7,400</td>
</tr>
<tr>
<td>Pine Brook</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Upstream of confluence of</td>
<td>78</td>
<td>6,800</td>
</tr>
<tr>
<td>High Bridge Brook</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Upstream of confluence of</td>
<td>57</td>
<td>5,300</td>
</tr>
<tr>
<td>Mill Brook</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Upstream of confluence of</td>
<td>47</td>
<td>4,600</td>
</tr>
<tr>
<td>Charles Folsom Brook</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>CHARLES FOLSOM BROOK</strong></td>
<td>7</td>
<td>750</td>
</tr>
<tr>
<td>At State Route 100</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>SHEPARD BROOK</strong></td>
<td>17</td>
<td>1,500</td>
</tr>
<tr>
<td>At State Route 100</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>MILL BROOK</strong></td>
<td>19</td>
<td>1,600</td>
</tr>
<tr>
<td>At State Route 100</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3.2 Hydraulic Analyses

Analyses of the hydraulic characteristics of the flooding sources studied in detail were carried out to produce estimates of the elevations of the water surfaces at the time the expected floods of the selected recurrence intervals would occur at each of these flooding sources.

Cross section data for the streams and by detailed methods were obtained using photogrammetric surveys available, and by field measurement for the remaining sections. The below-water data was obtained by field measurement. Cross sections and culverts were field surveyed to obtain elevation data and structural geometry.
October 27, 2010

Kari Dolan
Vermont River Management Program
Department of Environmental Conservation
103 South Main Street, Building 10 North
Waterbury, VT 05671

Re: Comprehensive Stormwater Management/Flood Control Mitigation Project, Waitsfield, VT

Dear Kari:

I have reviewed our Department’s databases for potential impacts to necessary wildlife habitat, rare, threatened and endangered species and significant natural communities. A search reveals (the following): none of these resources are in the project area.

You may be aware that the town of Waitsfield participated in a natural resource inventory of their town and the following report was produced, “The Mad River Valley Planning District, Natural Heritage Element Inventory and Assessment for Waitsfield and Fayston, Vermont.” A map showing wetlands in the study area indicates a riverside grassland community immediately upstream from the project on the same side of the river. Impacts to this natural community should be avoided or minimized to the greatest extent during the bank stabilization project.

Sincerely,

Everett Marshall
Biologist/Information Manager
Tel: 802-241-3715; Cell: 802-371-7333
recurrence interval should be input into the aftermitigation section of the DFA module. The benefits of this project over time are represented by the difference in damages and losses for the before-mitigation and after-mitigation scenarios.

Please contact the FEMA bchepline@dhs.gov if you have additional questions.

Regards,
Adam Reeder, PE

FEMA's Benefit-Cost Analysis Helpline
866.222.3580 toll free
bchepline@dhs.gov

The guidance in this FEMA Benefit-Cost Analysis (BCA) Helpline response is provided for FEMA Fiscal Year (FY11) Hazard Mitigation Assistance (HMA) grant programs. The BCA requirements for the FEMA Public Assistance (PA) Grant Program under Section 408 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act (Stafford Act) may be different from the guidance provided herein.

This e-mail and any attachments contain URS Corporation confidential information that may be proprietary or privileged. If you receive this message in error or are not the intended recipient, you should not retain, distribute, disclose or use any of this information and you should destroy the e-mail and any attachments or copies.
7. I worked with two engineers on this project: the State River Management Program chief stream alteration engineer, Barry Cahoon, PE, and David Frothinghann PE, Senior Civil Engineer with DeWolfe Engineering Associates. Mr. Frothingham verbally agreed to the determination of rate of erosion of that relevant eroding stream bank. We compared the location of the streambank in 1970 and 2009, using ortho-rectified aerial photography and topographic maps. The rate of change result was which came out to be approximately 0.76 feet per year on average. To be conservative, we used a rate of 0.5. Mr. Frothingham also agreed that although the design of this project is to withstand impacts from large flood events, we reasonably estimated that maintenance would cost approximately, $500/year. To be conservative, we doubled that assumption, arriving at a cost of maintenance of approximately $1000/year. The recent flooding in Aug. 2011 confirmed the streambank receding rate, noting more streambank eroded.

8. As recommended by the DCA Helpdesk, since the principle concern is the high risk that future flooding will continue to erode, potentially catastrophically, this actively eroding streambank and result in failure of nearby buildings, we created a “recurrence interval” for streambank erosion. We calculated the distance the buildings are the the Mad River, and, based on the rate of channel erosion, determined the recurrence interval for each buildings:

<table>
<thead>
<tr>
<th>Building</th>
<th>Recurrence Interval (yr)</th>
<th>Erosion Rate (0.76 ft/yr)</th>
<th>Erosion Rate (1 ft/yr; to be conservative)</th>
<th>Actual Distance from River (ft)</th>
<th>Distance Used (ft, to be conservative)</th>
</tr>
</thead>
<tbody>
<tr>
<td>50 Bridge Street</td>
<td>20</td>
<td>0.76</td>
<td>0.5</td>
<td>5</td>
<td>10</td>
</tr>
<tr>
<td>20 Bridge Street</td>
<td>60</td>
<td>0.76</td>
<td>0.5</td>
<td>25</td>
<td>30</td>
</tr>
<tr>
<td>40 Bridge Street</td>
<td>190</td>
<td>0.76</td>
<td>0.5</td>
<td>80</td>
<td>95</td>
</tr>
<tr>
<td>4403 Main Street</td>
<td>300</td>
<td>0.76</td>
<td>0.5</td>
<td>150</td>
<td>150</td>
</tr>
<tr>
<td>4429 Main Street</td>
<td>300</td>
<td>0.76</td>
<td>0.5</td>
<td>150</td>
<td>150</td>
</tr>
</tbody>
</table>

9. Since the inundation data in the flood module provides a good indication of the damages (building, content, and displacement costs) associated with the magnitude of the flood event, I used the outcome in the flood module as input into damages in the Damage Frequency Assessment (DFA). According to BCA Helpdesk, the DFA module may be used to conduct a BCA for such streambank erosion projects. I used the Non-residential structure Depth Damage Functions before mitigation. For Buildings, I used the value after reaching 50% before mitigation. For Content, I used the value that stayed the same after a certain depth, and for Displacement, as recommended by DCA Helpdesk, I assumed that displacement costs would cover one year.

10. We used expected damages for a single event, which was acceptable to the BCA Helpdesk: “For this type of project, it is permitted to enter damages for a single event and the associated recurrence interval determined in the engineering analysis into the DFA module even though guidance for the DFA requires a minimum of two events with known recurrence intervals.” (see email correspondence from Adam Reeder, PE, dated 11/17/2010).

11. To determine Damages Before Mitigation, I first created an “event frequency,” using the recurrence interval calculated with the erosion rate and distance of the buildings from the river. The “damages before mitigation” were the values from the flood module, becoming my estimates for expected damages for each building. Based on BCA Helpdesk guidance, we conducted the BCA “...based on the assumption that the before-mitigation damages caused by erosion can be expected at a recurrence interval (frequency) equal to the time period at which damage occurs based on the erosion rate.” (Reeder).
**Waitsfield, VT HMGP Project Application; BCA Module, 09/22/2011, K. Dolan, Agency of Natural Resources**

### Migration Rate of Streambank

<table>
<thead>
<tr>
<th>Map Year</th>
<th>Avg Change in Streambank Over Time (ft/yr)</th>
<th>Rate of Change/yr</th>
</tr>
</thead>
<tbody>
<tr>
<td>1983</td>
<td>27.33</td>
<td>1.05</td>
</tr>
<tr>
<td>2009</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Costs and Benefits

<table>
<thead>
<tr>
<th>Landowner Last Name</th>
<th>Address</th>
<th>Elevation of 1st Floor</th>
<th>1st Floor Square Footage</th>
<th>Total Square Footage</th>
<th>FMV</th>
<th>FMV/12</th>
<th>Displacement Costs</th>
<th>Displacement Costs/yr</th>
<th>Content Rent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bargerstock</td>
<td>50 Bridge St</td>
<td>694</td>
<td>352</td>
<td>352</td>
<td>51000</td>
<td>144.89</td>
<td>600/mo</td>
<td>800</td>
<td>1000</td>
</tr>
<tr>
<td>Gulisano</td>
<td>20 Bridge St</td>
<td>694.5</td>
<td>5800</td>
<td>8400</td>
<td>575000</td>
<td>68.45</td>
<td>15000/wk</td>
<td>60000</td>
<td></td>
</tr>
<tr>
<td>Schramke</td>
<td>40 Bridge St</td>
<td>694.5</td>
<td>3500</td>
<td>7000</td>
<td>600000</td>
<td>85.71</td>
<td>5000/mo</td>
<td>50000</td>
<td>50000</td>
</tr>
<tr>
<td>Abend</td>
<td>4403 Main St</td>
<td>695.5</td>
<td>4000</td>
<td>10000</td>
<td>500000</td>
<td>50.00</td>
<td></td>
<td>7000</td>
<td>30000</td>
</tr>
<tr>
<td>Goss</td>
<td>4429 Main St</td>
<td>695.5</td>
<td>1230</td>
<td>3000</td>
<td>250000</td>
<td>83.33</td>
<td>2488/mo</td>
<td>2488</td>
<td></td>
</tr>
<tr>
<td>Town Office</td>
<td>9 Bridge St</td>
<td>555</td>
<td>28752</td>
<td>1976000</td>
<td>68.73</td>
<td>14882</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Calculation of Return Interval:**

<table>
<thead>
<tr>
<th>Landowner Last Name</th>
<th>Address</th>
<th>Distance from River</th>
<th>Rate 0.5ft/yr</th>
<th>RI</th>
<th>Building</th>
<th>Content</th>
<th>Displacement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bargerstock</td>
<td>50 Bridge St</td>
<td>10</td>
<td>0.3</td>
<td>33.3</td>
<td>51040</td>
<td>9100</td>
<td>7101</td>
</tr>
<tr>
<td>Gulisano</td>
<td>20 Bridge St</td>
<td>30</td>
<td>0.3</td>
<td>100.0</td>
<td>575400</td>
<td>140628</td>
<td>710137</td>
</tr>
<tr>
<td>Schramke</td>
<td>40 Bridge St</td>
<td>95</td>
<td>0.3</td>
<td>316.7</td>
<td>599900</td>
<td>213804</td>
<td>59178</td>
</tr>
<tr>
<td>Abend</td>
<td>4403 Main St</td>
<td>.150</td>
<td>0.3</td>
<td>500.0</td>
<td>500000</td>
<td>120900</td>
<td>82849</td>
</tr>
<tr>
<td>Goss</td>
<td>4429 Main St</td>
<td>150</td>
<td>0.3</td>
<td>500.0</td>
<td>249990</td>
<td>31149</td>
<td>29447</td>
</tr>
</tbody>
</table>

**Return Interval**

<table>
<thead>
<tr>
<th>RI</th>
<th>Building</th>
<th>Content</th>
<th>Displacement</th>
</tr>
</thead>
<tbody>
<tr>
<td>33.3</td>
<td>51040</td>
<td>9100</td>
<td>7101</td>
</tr>
<tr>
<td>100.0</td>
<td>626440</td>
<td>149728</td>
<td>717238</td>
</tr>
<tr>
<td>316.7</td>
<td>1226340</td>
<td>363532</td>
<td>77416</td>
</tr>
<tr>
<td>500.0</td>
<td>1976330</td>
<td>515581</td>
<td>888712</td>
</tr>
</tbody>
</table>

**Costs/Damages**

<table>
<thead>
<tr>
<th>Damage Which Buildings</th>
<th>50 Bridge Street</th>
<th>50 + 20 Bridge Street</th>
<th>50 + 20+ 40 Bridge Street</th>
<th>all five structures</th>
</tr>
</thead>
</table>
November 17, 2010

Kari Dolan
Vermont Department of Environmental Conservation
Water Quality Division
103 South Main Street, Building 10 North
Waterbury, VT 05620-1201


Dear Kari:

Thank you for the opportunity to comment on the above-referenced project submitted for funding from the Pre-Disaster Mitigation Competitive Grant program at the Federal Emergency Management Agency (FEMA). The following comments will assist FEMA in their review responsibilities under Section 106 of the National Historic Preservation Act.

The Division for Historic Preservation (Division) is providing FEMA with the following comments pursuant to 36 CFR 800.4, regulations established by the Advisory Council on Historic Preservation to implement Section 106 of the National Historic Preservation Act. Project review consists of identifying the project's potential impacts to historic buildings, structures, historic districts, historic landscapes and settings, and known or potential archeological resources.

The proposed project consists of two general components: 1) stabilization of approximately 425 linear feet of eroding riverbank along the Mad River upstream of the Waitsfield Covered Bridge, and 2) construction of a storm water management system in the Bridge Street Marketplace. The project will mitigate flood damage to the Waitsfield Village and Covered Bridge and is located within the Waitsfield Village Historic District, which is listed on the National Register of Historic Places, and within archeologically sensitive areas along the Mad River.

Based on a preliminary review of the project area, the Division believes that it is likely that the undertaking will have No Adverse Effect on any historic properties provided that the following actions are undertaken in accordance with 36 CFR 800.4a(ii) prior to any construction activity. This determination assumes that any adverse effects will be mitigated before project implementation:

1) All project components will be assessed for the presence of historic and archeological resources in the Area of Potential Effect as defined on project plans.

2) The Town of Waitsfield will hire a 36 CFR-61 qualified architectural historian and a 36 CFR-61 qualified consulting archaeologist to complete the assessments.

3) For above-ground resources, the qualified architectural historian should at minimum complete the following tasks: a) identify and evaluate whether there are any properties already listed on or eligible for listing on the National Register in a project's Area of Potential Effect, b) assess whether there are any adverse effects to any eligible properties, and c) identify options for the possible mitigation to any adverse effects. All work must meet the Secretary of the Interior's Guidelines for Identification and Evaluation (48 FR 4471).
4) For below-ground resources, the qualified consulting archeologist shall conduct archeological resource assessments on all project components to identify any known sites and archeologically sensitive areas. Any such assessments must be reviewed and approved by the Division and all known sites and archeologically sensitive areas must be mapped and identified as not-to-be-disturbed buffer zones.

5) Topsoil removal, grading, scraping, cutting, filling, stockpiling, logging or any other type of ground disturbance is prohibited within the buffer zones prior to construction unless the Town of Waitsfield completes appropriate archeological studies.

6) Archeological studies to identify or evaluate sites will be carried by a qualified consulting archeologist in all archeologically sensitive and known site areas to be impacted by the proposed project. The archeological studies will be scheduled early in the project so that mitigation measures that may be necessary can be satisfactorily planned and accomplished prior to construction.

7) All archeological studies and assessments must follow the Division's Guidelines for Conducting Archeological Studies in Vermont. The Town of Waitsfield's archeological consultant must submit any scope of work to the Division for review and approval.

8) Archeological sites within the project area will not be impacted until any necessary mitigation measures have been carried out. Mitigation may include but is not limited to further site evaluation, data recovery, redesign of one or more proposed project components, or specific conditions that may be imposed during construction, such as installation of construction barriers or protective matting etc.

9) Proposed mitigation measures will be discussed with and approved by the Division prior to implementation. The archeological studies will result in one or more final reports, as appropriate, that meet the Division's Guidelines for Conducting Archeological Studies in Vermont.

10) Copies of all reports shall be submitted to the Town of Waitsfield and the Division for review and approval.

Thank you for your cooperation in protecting Vermont's irreplaceable archeological and historic heritage. R. Scott Dillon reviewed this project and prepared this letter. I concur with the findings and conclusions described above. I look forward to further consultation on this important project.

Sincerely:
VERMONT DIVISION FOR HISTORIC PRESERVATION

Giovanna Peebles
State Historic Preservation Officer

Cc: Joshua Schwartz, Mad River Valley Planning District