Bennington County Regional Commission

MINUTES
July 20, 2017
5:30 PM
Bennington Project Independence - Route 7A, Bennington

Present: Liz Ruffa (Local Food and Ag), John LaVecchia (Dorset), Jonathan Ryan (Housing), Janet Hurley (Manchester), Bill Deveneau (Bennington), Judy Boehlert (Sandgate)
Jim Sullivan, Jim Henderson, Catherine Bryars, Mark Anders
Also Present: Bill Botzow (Pownal, Legislator), Jim Ryan (VT DEC), Alan Baker (Shaftsbury)

I. Approval of Minutes

Deferred to September due to lack of quorum.

II. Municipal Roads General Permit - Jim Ryan, VT DEC

Presentation on DEC's Municipal Roads General Permit (MRGP - presentation attached). Provided background data on Vermont's system of local, state, and federal roads (notable is that 70% of road mileage is maintained by municipalities; 65% of those are Class 3 town roads). Reviewed sources of water pollution - agricultural lands, stream instability, developed areas and paved roads, forest lands, unpaved roads, and wastewater treatment facilities, and types of pollutants.

Observed that roadway improvements to protect water quality also benefit flood resilience efforts and reduce town road maintenance needs and costs.

Act 64 contains requirements related to municipal roads and stormwater management. Focus on "hydrologically connected" road segments that can be reviewed on the ANR’s Natural Resources Atlas website. MRGP requires an inventory of road segments, prioritization of improvements, and implementation projects.

About half of connected road miles (average statewide) need improvements. Principles: disconnect stormwater and road, infiltrate stormwater, stability conveyances and ditches.

Standards and types of improvement projects were reviewed. Several important sources of funding are available to towns, including a new "municipal road grant-in-aid" program, better roads grants, transportation alternatives program, ecosystem restoration program, and others.
III. Food Systems Study - Liz Ruffa, Northshire Grows (BCRC Local Food and Ag Commissioner)

Presentation by Liz Ruffa, project director for Northshire Grows, a food system network for the Bennington County region. The network includes people in the region and around the state involved in some aspect of the regional food system (producers, consumers, wholesalers, retailers, support services, etc.). Recently completed a study that includes an overview of food security issues in the Bennington area, produced by Crossroads Resource Center and an implementation plan "Roadmap Forward for Bennington."

Project included interviews with farmers, local officials, schools, other institutions, and various service providers. Focus of study turned to food security/access to food for lower income residents of Bennington. Key findings from Crossroads study include need for regular communication around food issues by service providers, creating community connections among low-income residents, and expanding local farming activities in the Bennington area. Also discussed agriculture/food systems workforce development opportunities, economic development/value-added food system opportunities,...

Ruffa provided a summary of recommendations from the "Roadmap" report. Ideas include: hiring a regional farm and food coordinator, coordinating social service support organizations and services, driving demand through consumer education, farm to school initiatives, institutional programs and buying. Ideas were discussed regarding institutional land and conserved land not currently being farmed as resources for food production, opportunities for new farms, agricultural education. Also, various ideas for reducing food waste, including variable pricing models. Noted public health benefits of increased consumption of healthy locally produced foods.

Meeting adjourned at 7:45 PM.
DEC’s Municipal Roads General Permit

Jim Ryan
Vermont Road Mileage

- 18,818 total road miles
- 155 miles of federal roads - 1%
- 2,709 miles of state highway - 14%
- 2,823 miles of private roads - 15%
- 13,131 miles of town highway (Classes 1-4) - 70%
Municipal Road Classes

Road Class Distribution

- **Class 1**: 1.2% (VTrans and municipally-maintained)
- **Class 2**: 21.2%
- **Class 3**: 65.1%
- **Class 4**: 12.5%
Long Island Sound Post-TS Irene
Sources of phosphorus in the Vermont portion of the Lake Champlain Basin (Preliminary estimates from Tetra Tech, 2013)
Potential Road Pollutants

- Nutrients - Phosphorus
- Sediment
- Trace heavy metals
- Hydrocarbons
- Road salt
Secondary benefits: flood resilience and reducing town road maintenance and costs
Act 64 Language regarding the MRGP

(2)(A) The Secretary shall issue on or before December 31, 2017, a general permit for discharges of regulated stormwater from municipal roads.

(i) Establish a schedule for implementation of the general permit by each municipality in the State. Under the schedule, the Secretary shall establish:

(I) the date by which each municipality shall apply for coverage under the municipal roads general permit;

(II) the date by which each municipality shall inventory necessary stormwater management projects on municipal roads;

(III) the date by which each municipality shall establish a plan for implementation of stormwater improvements that prioritizes Stormwater improvements according to criteria established by the Secretary under the general permit; and

(IV) the date by which each municipality shall implement stormwater improvements of municipal roads according to a municipal implementation plan.
Hydrologically-connected Road Segments
Hydrologically-connected roads

Connected Criteria:

• Muni roads within 100’ laterally of a state water

• Muni road that bisects (crosses) a state water

Waters of the state include:

• Perennial streams
• Intermittent streams
• Wetlands
• Lakes and Ponds
MRGP - Components

Inventory

Prioritize

Implement
### Road Inventory and Evaluation Form A

**PAVED ROADS WITH OPEN DITCHES**

**GRAVEL/OPEN (DITCHED) NON-CLASS 4 ROADS**

<table>
<thead>
<tr>
<th>Name:</th>
<th>Date:</th>
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</thead>
</table>

<table>
<thead>
<tr>
<th>Road Segment Name, Town Highway Number &amp; Segment ID Number</th>
<th>ANR Atlas Slope</th>
<th>Field Determined Slope</th>
<th>Road Type</th>
<th>Erosion Type Present</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</table>

1. **ROADWAY CROWN/TRAVEL LANE:** *(N/A for Paved)* What percentage of the segment is properly crowned *(1" to 1½" per foot)*, in-sloped, or out-sloped? Note if erosion is present due to poor road surface material.

<table>
<thead>
<tr>
<th>0%–49% <em>(0’-163’)</em></th>
<th>50%–89% <em>(164’-294’)</em></th>
<th>90%–100% <em>(295’-328’)</em></th>
<th>Paved</th>
<th>Rill</th>
<th>Gully</th>
</tr>
</thead>
<tbody>
<tr>
<td>Does Not Meet</td>
<td>Partially Meets</td>
<td>Fully Meets</td>
<td></td>
<td>Erosion Type Present</td>
<td></td>
</tr>
</tbody>
</table>

2. **GRADER BERM/WINDOW:** What percentage of the segment *(both sides of road, 200’m, 656’)* is the grader berm/window removed? *(N/A for paved roads)*

<table>
<thead>
<tr>
<th>0%–49% <em>(0’-327’)</em></th>
<th>50%–89% <em>(328’-589’)</em></th>
<th>90%–100% <em>(590’-666’)</em></th>
<th>Paved</th>
<th>Rill</th>
<th>Gully</th>
</tr>
</thead>
<tbody>
<tr>
<td>Does Not Meet</td>
<td>Partially Meets</td>
<td>Fully Meets</td>
<td></td>
<td>Erosion Type Present</td>
<td></td>
</tr>
</tbody>
</table>

3. **ROAD DRAINAGE:** What percentage of the segment *(both sides of road, 200’m, 656’)* is allowed to shed in a distributed manner to a vegetated or forested filter strip *(shoulder lower than travel lane)* or drainage ditch stabilized appropriately for the slope range below?

- <5% slope: stabilized with vegetation, stone-lined, or check dams
- >5% to <8% slope: stabilized with stone-lined ditch or combination of grass lined ditch with check dams or grass lined ditch if installed with erosion control practices such as turnouts and cross culverts
- >8% slope: stone-lined ditch required

<table>
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<tr>
<th>0%–49% <em>(0’-327’)</em></th>
<th>50%–89% <em>(328’-589’)</em></th>
<th>90%–100% <em>(590’-666’)</em></th>
<th>Paved</th>
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<th>Gully</th>
</tr>
</thead>
<tbody>
<tr>
<td>Does Not Meet</td>
<td>Partially Meets</td>
<td>Fully Meets</td>
<td></td>
<td>Erosion Type Present</td>
<td></td>
</tr>
</tbody>
</table>

4. **CONVEYANCE AREA/TURNOUT:** Do drainage outlets/conveyance areas meet the standard of being turned out, shed in a distributed manner down the bank *(sheding water)*, and/or stabilized with vegetation *(<5% slope)* or stone *(≥5% slope)*?

<table>
<thead>
<tr>
<th>One or more areas does not meet standard.</th>
<th>All areas meet standard.</th>
<th>Paved</th>
<th>Rill</th>
<th>Gully</th>
</tr>
</thead>
</table>

5. **& 6. DRIVEWAY & DRAINAGE CULVERTS**

<table>
<thead>
<tr>
<th>Type of culvert</th>
<th>Is erosion present?</th>
<th>Where in the culvert cross section is erosion present and is it rill or gully erosion?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drainage</td>
<td></td>
<td>SEE CULVERT CROSS SECTION DIAGRAM</td>
</tr>
<tr>
<td></td>
<td>□ Driveway</td>
<td>□ No (Fully Meets)</td>
</tr>
<tr>
<td></td>
<td>□ Drainage</td>
<td>□ Yes (complete C)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>□ Driveway</td>
<td>□ No (Fully Meets)</td>
</tr>
<tr>
<td></td>
<td>□ Drainage</td>
<td>□ Yes (complete C)</td>
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<td></td>
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<td></td>
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<tr>
<td></td>
<td>□ Drainage</td>
<td>□ Yes (complete C)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Is other rill or gully erosion present?</th>
<th>Check if present in segment and note linear foot (LF)</th>
</tr>
</thead>
<tbody>
<tr>
<td>□ River-road embankment erosion</td>
<td>□ Historic stone walls, LF</td>
</tr>
</tbody>
</table>
Implementation Prioritization

- All connected roads brought up to MRGP standards no later than 2038

- Towns, working in coordination with RPCs and DEC, can identify implementation schedule*

- *All connected roads Not Meeting standards on slopes >10% will have to be brought up to standards by 2025
MRGP- Town Example

Town A. has 52 total road miles (VT average)

- 26 road miles are hydrologically-connected road segments
- 26 miles not considered connected (no BMP work needed)
- 13 connected road miles currently fully meet MRGP standards (maintenance of BMPs only)
- 13 remaining connected miles - required to be brought up to MRGP standards before 2038

13 miles/18 years = 0.72 road miles addressed per year minimum
(this number may change from year to year as segment compliance status changes)
MRGP Principles

First- disconnect road Stormwater whenever possible, starting at the top of the road watershed

Second- Infiltrate stormwater

Third- Stabilize conveyances and turn out ditches
Implementation “Triggers”

Required baseline standards - no matter what existing conditions are:

- Road grading/crowning
- Grass and stone-lined ditching or dispersed flow (based on slope)
- Removal of grader berm/lowering of shoulders
- Stable turnouts/conveyances

Only required when moderate to significant erosion present:

- 18” drainage culvert minimum
- 15” drive culvert
- Culvert headwalls/headers
- Culvert outlet stabilization
- Class 4 roads - gully erosion present
- Catch basin outfall erosion
Required Baseline Standard

Road crowning

[Diagram showing different road crowning types: Outsloped, In sloped, Ballast, Crowned surface, Ditch line]
Required Baseline Standard - grass and stone-lined drainage ditches/distributed flow
<table>
<thead>
<tr>
<th>Road Drainages</th>
<th>Paved</th>
<th>Paved/Ditched</th>
<th>Gravel (not Class IV)</th>
<th>Class IV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sheet flow (no drainage ditch)</td>
<td>N/A</td>
<td>• Distributed flow from roadway/travel lane to grass or forested area</td>
<td>Sheet flow from roadway/travel lane to grass or forested area</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td></td>
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</tr>
<tr>
<td>Drainage ditch: 0% ≤ Slope &lt; 5%</td>
<td>N/A</td>
<td>• Grass-lined ditch (no bare soil)</td>
<td>• Grass-lined ditch (no bare soil)</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• BMPs that disconnect water out of road drainage network (cross culverts, turnouts or sheet flow etc.)</td>
<td>• BMPs that disconnect water out of road drainage network (cross culverts, turnouts or sheet flow etc.)</td>
<td></td>
</tr>
<tr>
<td>Drainage ditch: 5% ≤ Slope &lt; 8%</td>
<td>N/A</td>
<td>• Stone-lined ditch 8” minus minimum stone recommended and/or</td>
<td>• Stone-lined ditch 8” minus minimum stone recommended and/or</td>
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<tr>
<td></td>
<td></td>
<td>• Stone-check dams and/or</td>
<td>• Stone-check dams and/or</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>• BMPs that disconnect water out of road drainage network (cross culverts, turnouts or sheet flow etc.)</td>
<td>• BMPs that disconnect water out of road drainage network (cross culverts, turnouts or sheet flow etc.)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Consider undercutting ditch to install stone fill such that material can be removed without removing the stone.</td>
<td>• Consider undercutting ditch to install stone fill such that material can be removed without removing the stone.</td>
<td></td>
</tr>
<tr>
<td>Drainage ditches: Slope ≥ 8%</td>
<td>N/A</td>
<td>• Stone-lined ditch- 12” minus recommended</td>
<td>• Stone-lined ditch- 12” minus recommended</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Consider undercutting ditch to install stone fill such that material can be removed without removing the stone.</td>
<td>• Consider undercutting ditch to install stone fill such that material can be removed without removing the stone.</td>
<td></td>
</tr>
</tbody>
</table>
Required Baseline Standard - stable turnouts and conveyances
Required Baseline Standard - removal of grader berm
Remove berms to allow distributed flow
Distributed flow instead of a ditch
Erosion from lack of culvert headwall/header
Driveway culvert erosion and remediation (within right-of-way)
Gully erosion and sedimentation
MRGP Timeline of Deliverables
2017-forward

Summer-Fall 2017
- Draft municipal roads general permit
- MRGP public hearings and comments

July 2018
- July 2018- municipalities apply for MRGP coverage and pay fees
- Issue final MRGP

2018
- Before December 31, 2017

2019
- Starting in 2018- Annual MRGP compliance updates

2020
- Required implementation and maintenance of priority road projects

2021 and beyond
- Fall 2020
- Road erosion inventories and implementation plans and schedules due

VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATION
WATERSHED MANAGEMENT DIVISION
STORMWATER PROGRAM
MRGP summary for municipalities:

• Application coverage and annual fees to begin in July-2018

• Road erosion inventories for hydrologically-connected roads, updated approximately every 5 years or every MRGP permit cycle

• Implementation plans and schedules

• Road BMP implementation to achieve all connected roads meeting standards by 2038 (a minimum amount of implementation per year)

• Annual reporting on implementation progress
Assistance to towns?

- Funding - *New Municipal Grant-in-Aid*
- Outreach and Technical assistance
- Shared Equipment
New Muni Road Grant-in-Aid Funding

- Funding for towns based on connected road miles
- Work must be on connected road segments
- Must bring those segments up to MRGP Standards
- 20% town match or in-kind
- RPCs will assist towns with mapping and grant reporting
# Vermont Clean Water Funding Opportunities for Municipalities (SFY2018)

**Vermont Agency of Transportation (VTrans)**

<table>
<thead>
<tr>
<th>GRANT PROGRAM</th>
<th>DESCRIPTION</th>
<th>FUNDING DETAILS</th>
<th>CONTACT</th>
<th>DUE DATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Better Roads</td>
<td>Municipal roadway improvements that benefit water quality, including:</td>
<td>Total Funding Available: $3 million</td>
<td>Better Roads Project Coordinators:</td>
<td>Annually, late Spring</td>
</tr>
<tr>
<td></td>
<td>- Inventories of roadway erosion and/or stormwater management issues and capital budget planning (Category A)</td>
<td>Max. Award: $8,000</td>
<td>Alan May, Eastern Vermont</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Correction of road related erosion and/or construction of stormwater management projects (Category B)</td>
<td>Category B: $20,000</td>
<td><a href="mailto:alan.may@vermont.gov">alan.may@vermont.gov</a></td>
<td>802-828-4585</td>
</tr>
<tr>
<td></td>
<td>- Correction of streambank and/or slope related problems (Category C)</td>
<td>Category C: $40,000</td>
<td>Linda Blasch, Western Vermont</td>
<td>802-498-7216</td>
</tr>
<tr>
<td></td>
<td>- Roadway structures and culvert upgrades (Category D)</td>
<td>Category D: $40,000</td>
<td><a href="mailto:linda.blasch@vermont.gov">linda.blasch@vermont.gov</a></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Match Requirement: 20% local</td>
<td><a href="http://vtrans.vermont.gov/highway/better-roads">http://vtrans.vermont.gov/highway/better-roads</a></td>
<td></td>
</tr>
<tr>
<td>Municipal Highway and Stormwater Mitigation</td>
<td>Environmental mitigation activities, including stormwater and water pollution prevention, management, and control related to highway construction or highway runoff</td>
<td>Total Funding Available: $5.9 million</td>
<td>Joel Perrigo, VTrans Project Manager</td>
<td>Annually, late Summer</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Max. Award: N/A</td>
<td><a href="mailto:joel.perrigo@vermont.gov">joel.perrigo@vermont.gov</a></td>
<td></td>
</tr>
<tr>
<td>Transportation Alternatives Program</td>
<td>Environmental mitigation activities, including stormwater and water pollution prevention, management, and control related to highway construction or highway runoff</td>
<td>Total Funding Available: $2.2 million</td>
<td>Scott Robertson, VTrans Project Manager</td>
<td>Annually, Fall</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Maximum Award: $300,000</td>
<td><a href="mailto:scott.robertson@vermont.gov">scott.robertson@vermont.gov</a></td>
<td></td>
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</tbody>
</table>
# Vermont Clean Water Funding Opportunities for Municipalities (SFY2018)

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</tr>
</thead>
<tbody>
<tr>
<td>Municipal Roads</td>
<td>Road erosion control projects on hydrologically connected road segments currently not meeting draft Municipal Roads General Permit standards</td>
<td>Total Funding Available: $2.1 million, allocated based on towns' hydrologically connected road miles Match Requirement: 20% local cash/inline</td>
<td>Enroll through your local Regional Planning Commission <a href="https://www.vapda.org">https://www.vapda.org</a></td>
<td>July 5, 2017</td>
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<tr>
<td>Grants-in-Aid Pilot</td>
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<tr>
<td>Ecosystem Restoration</td>
<td>Design and construction of water pollution abatement and control projects that target nonpoint sources of pollution, including stormwater management, natural resources restoration, road erosion control, and municipal capital equipment projects</td>
<td>Total Funding Available: $3 million Match Requirement: 50% for MS4 stormwater/road projects Capital equipment projects: 50% for large towns (&gt; 5,000 residents) 20% for small towns (≤ 5,000 residents) Non-MS4/capital equipment projects scored higher based on match provided</td>
<td>Marli Rupe, Clean Water Initiative Program Assistant Manager <a href="mailto:marli.rupe@vermont.gov">marli.rupe@vermont.gov</a></td>
<td>Rolling applications with quarterly review</td>
</tr>
<tr>
<td>Restoration Grants</td>
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<tr>
<td>Multi-Sector Clean</td>
<td>Construction of clean water improvement projects, administered by statewide partner(s), including stormwater management and natural resources restoration projects</td>
<td>Total Funding Available: $1.5 million Match Requirement: 50% for MS4 stormwater/road projects 20% for non-MS4 projects</td>
<td>Multi-Sector Clean Water Block Grant recipients will administer projects under this program Block Grant recipient contacts will be posted here: <a href="http://dec.vermont.gov/watershed/cwi/grants">http://dec.vermont.gov/watershed/cwi/grants</a></td>
<td>June 6, 2017</td>
</tr>
<tr>
<td>Water Block Grant</td>
<td></td>
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<tr>
<td>Clean Water State</td>
<td>Low interest loans/subsidy for municipal/municipally sponsored wastewater treatment upgrade/rehabilitation, combined sewer overflow abatement, and stormwater/nonpoint source management projects</td>
<td>Total Financing Available: $87 million Match Requirement: N/A</td>
<td>Thomas Brown, CWRSF Program Lead <a href="mailto:thomas.brown@vermont.gov">thomas.brown@vermont.gov</a></td>
<td>N/A</td>
</tr>
<tr>
<td>Revolving Loan Fund</td>
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<tr>
<td>(CWRSF)</td>
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VTrans Local Roads Program

Some Trainings Include:

- Grader operations
- Road fundamentals
- Road drainage
- Rivers and Roads (with DEC)
- Roads Roundtables (with DEC)

http://localroads.vermont.gov/
VTrans Better Roads Program

Better Roads Grants:

- All municipal roads eligible
- Road erosion inventories
- Culvert inventories
- Road BMP installation
- Bank stabilization
- Culvert replacement

http://vtrans.vermont.gov/highway/better-roads
What’s Next?

• **Summer of 2017** - MRGP public hearings and permit comments

• **Fall of 2017** - MRGP permit finalized

Jim Ryan - DEC Municipal Roads Program

jim.ryan@vermont.gov
(802) 490-6140