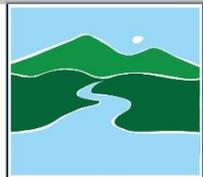


DEC's Municipal Roads General Permit

Jim Ryan



VERMONT DEPARTMENT OF
ENVIRONMENTAL CONSERVATION
**WATERSHED
MANAGEMENT DIVISION**
STORMWATER PROGRAM

GOING ON A ROAD TRIP

EXPECTATION

vs

REALITY

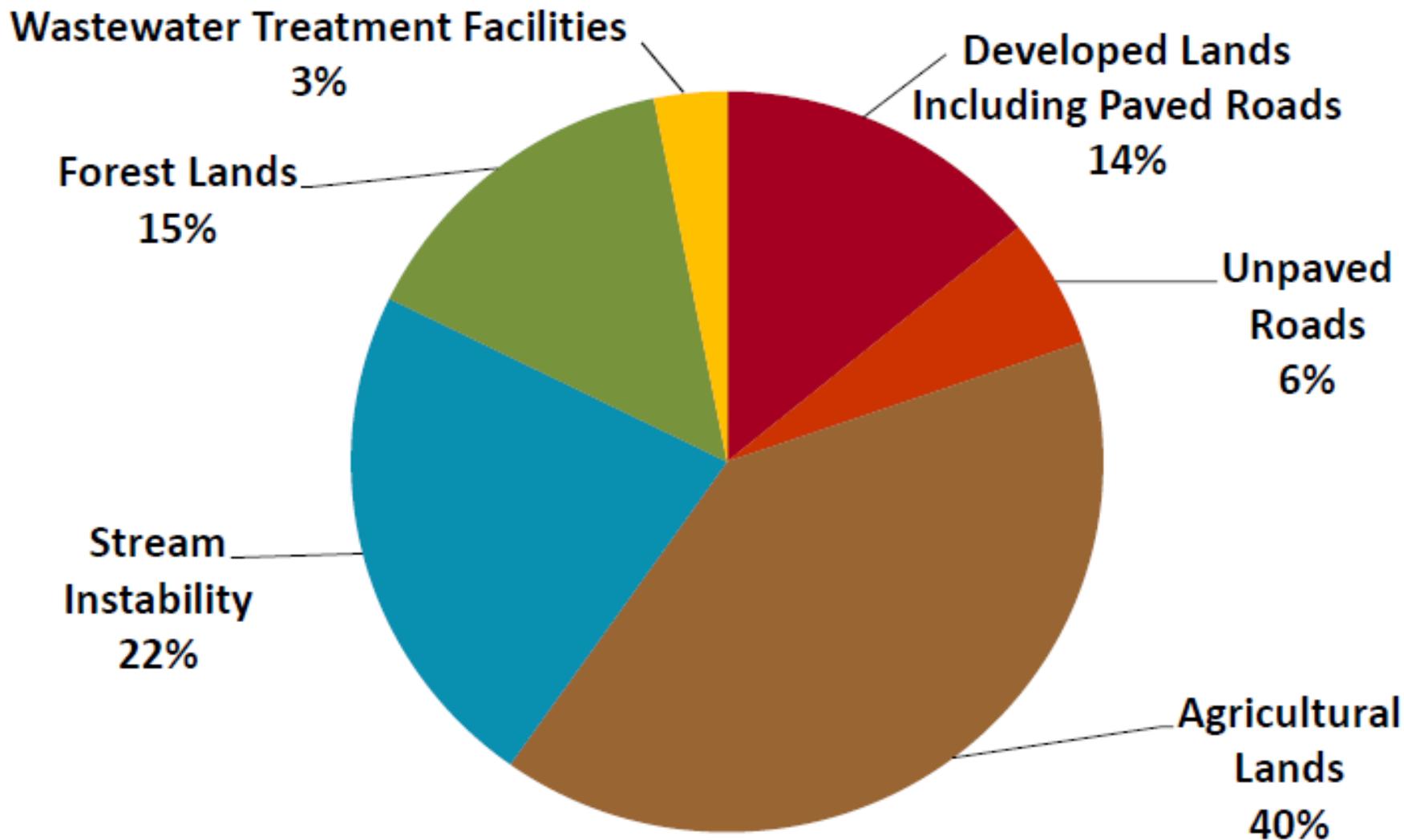


Lake Champlain post TS-Irene

(photo credit Bill Howland)



Sources of phosphorus in the Vermont portion of the Lake Champlain Basin (Preliminary estimates from Tetra Tech, 2013)



An “All-In” approach

Vermont Clean Water Act 2015

- Agriculture
- Roads (Paved & unpaved, State & municipal)
- Developed Land
- Natural Resources (Forests & Streams)
- Municipal Wastewater Treatment Facilities
- Municipal Separate Storm and Sewer Systems (MS4) Permits

Municipalities & Clean Water

Roads



Developed Land
>3 acres



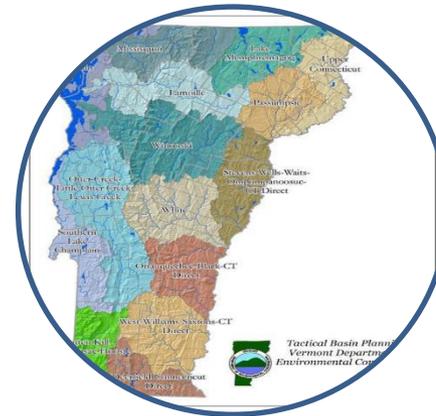
Wastewater
Treatment
Facilities



Drinking Water
Facilities



Tactical Basin
Planning



Potential Road Pollutants

- Nutrients- Phosphorus
- Sediment
- Trace heavy metals
- Hydrocarbons
- Road salt



Secondary benefits: flood resilience and reducing town road maintenance and costs



Photo Credits: Beverley Wemple



Wemple



Bryan Pfeiffer

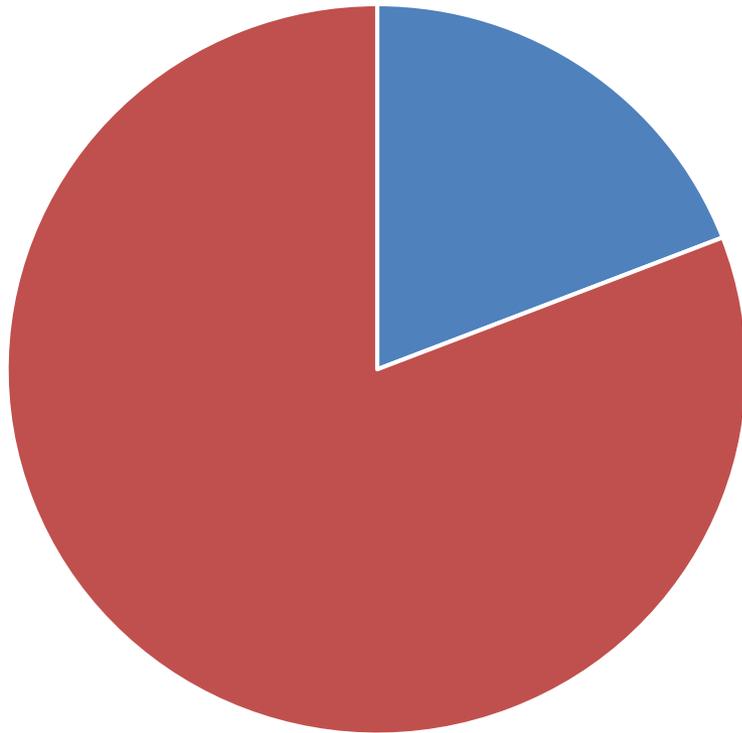
MRGP Coverage

- The MRGP will cover all Vermont municipalities
- MRGP jurisdiction limited to ROW



Vermont Road Mileage

Road Miles



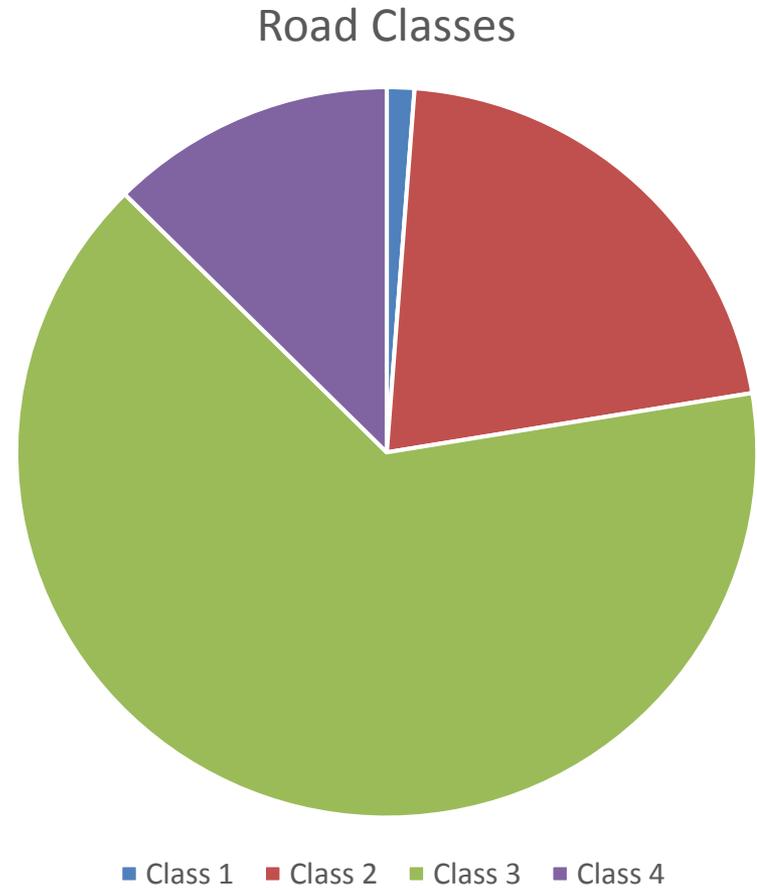
■ State Highway ■ Municipal roads ■ ■

- 15,840 total road miles (Classes 1-4 and SH)
- 2,709 miles of state highway
- 13,131 miles of town highway (Classes 1-4)

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%



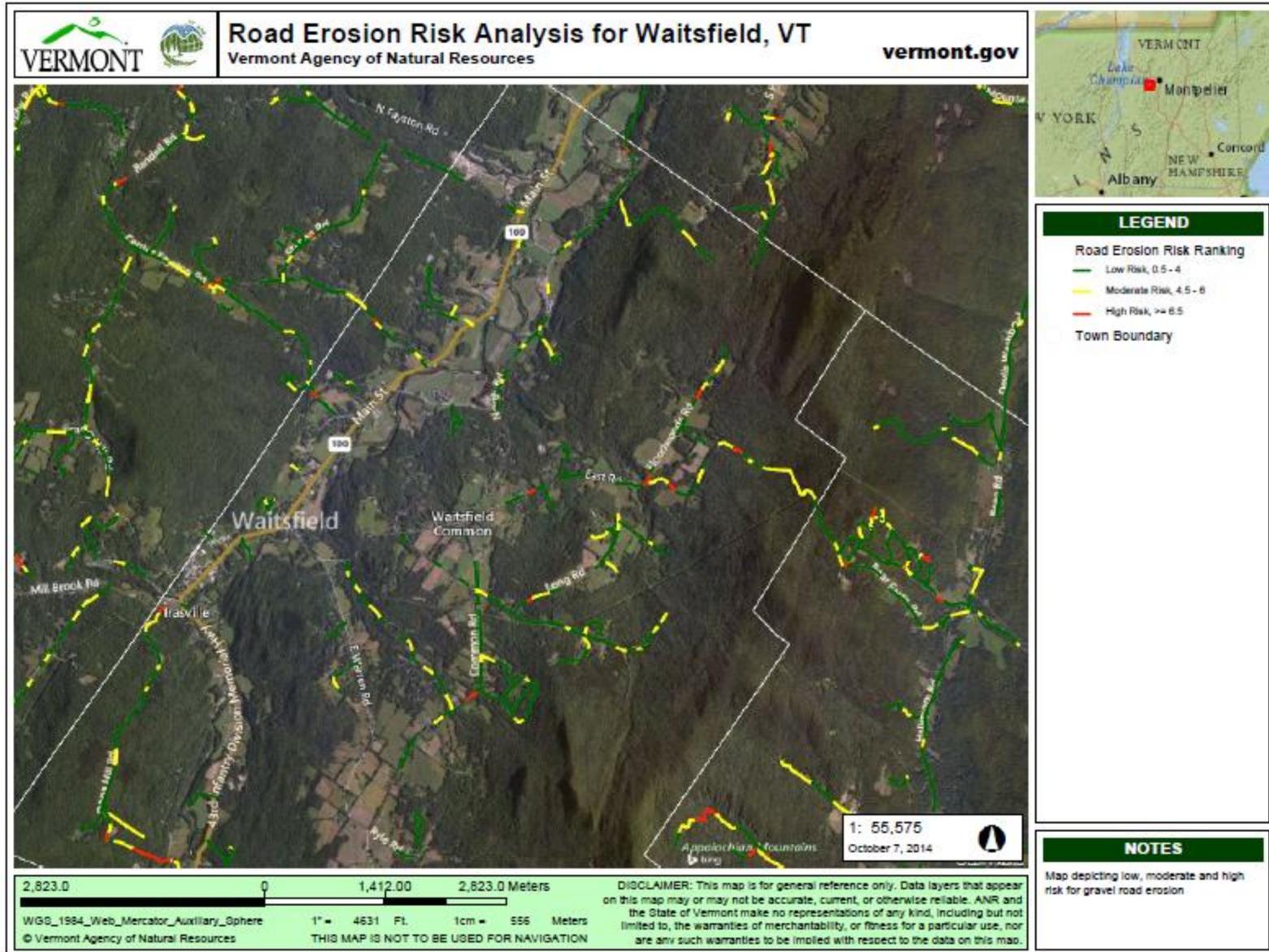
Purpose of the Roads Permit

- Bring “priority” road segments up to basic maintenance standards



- By implementing **Best Management Practices** necessary to reduce erosion

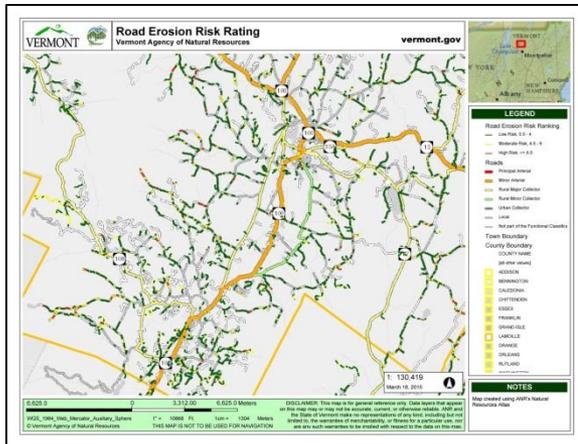
Priority Road Segments



Permit Framework

- Municipalities develop Road Stormwater Management Plans

Inventory



Prioritize



Implement



Road Stormwater Management Plans

SWMP components *will likely* include:

- Road miles by road type
- “Priority Road Segments” (PRS)
- ID of PRS not meeting standards
- Implementation schedule



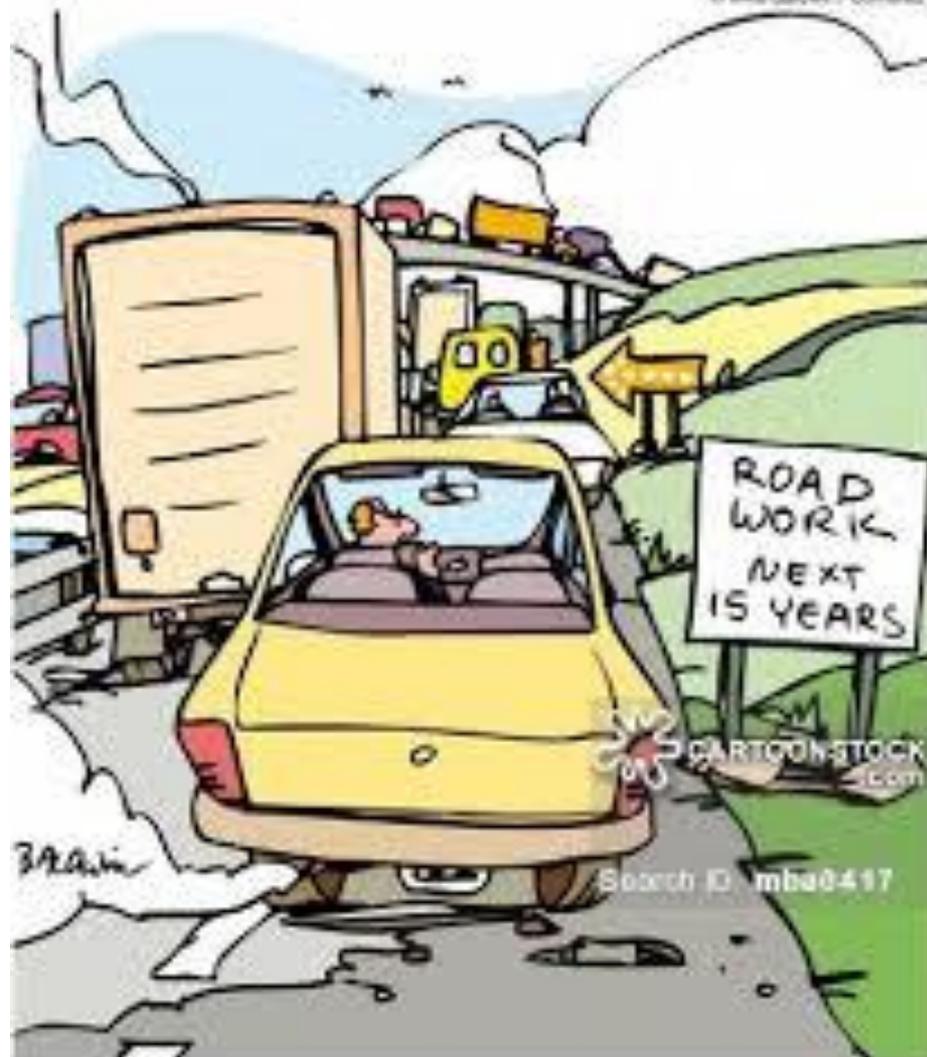
MRGP- Town Example

Town A. has 50 total road miles

- 25 road miles are **priority** road segments
- 25 miles not considered **priority**, no BMP work needed
- 15 **priority** road miles currently fully meet MRGP standards
- 10 remaining **priority** miles- required to be brought up to MRGP standards over a 20 year period

In this scenario **0.5 miles** of road per year would need to be brought up to standards for 20 years (or sooner)

© Mike (Bartow) / Comnet



Brain

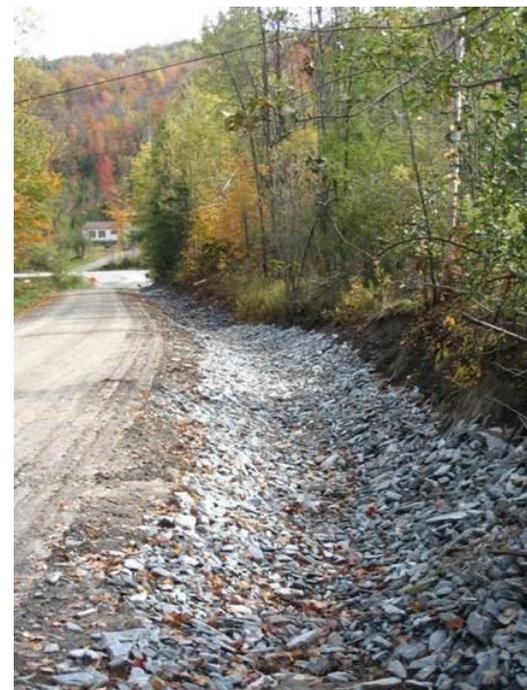
CARTOON-STOCK.com

Search ID mba0417

MRGP Practices and Standards

Practices will:

- Improve water quality
- Be cost-effective
- Easy to install and maintain (whenever possible)



What types of practices will be included in the MRGP?

Practices will likely include:

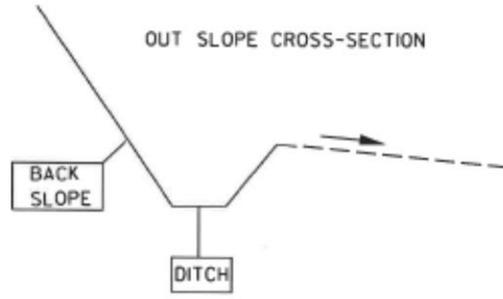
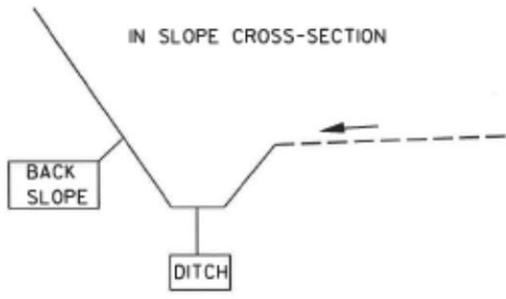
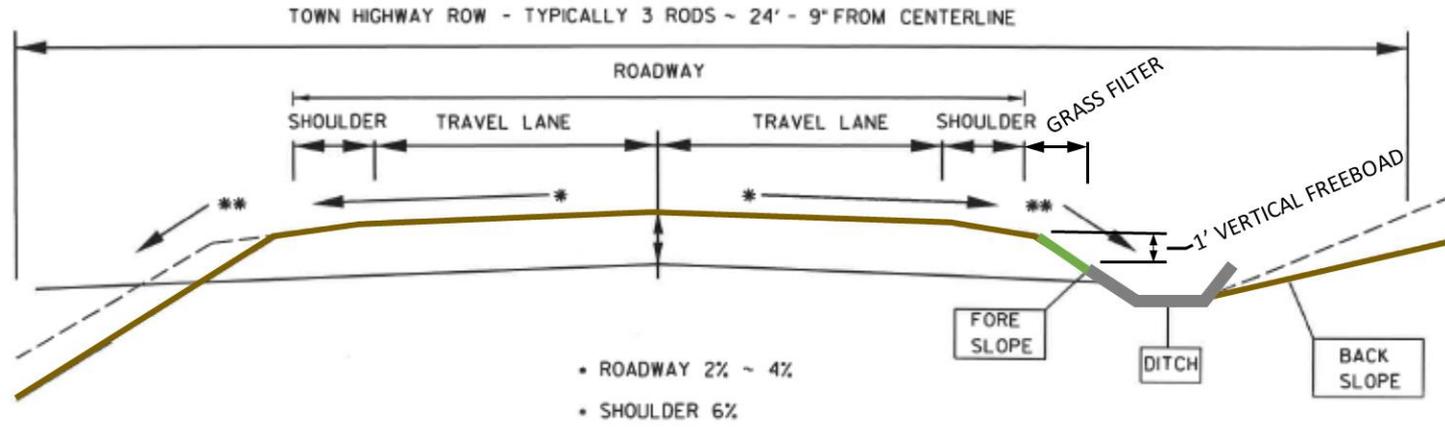
- Stone-lined ditches and check dams
- Turn outs
- Road crowning
- Culvert headers
- Culvert outlet stabilization
- Regular catch basin clean outs and sweeping
- Possible new techniques and Green Stormwater Infrastructure Practices



Possible MRGP standards for different road types (EXAMPLE ONLY)

	Paved- curbed	Paved- not curbed	Gravel (Not Class 4)	Class 4
18" minimum drainage culverts	X	X	X	N/A
Culvert headers/ stable outlets	X	X	X	If erosion present
Grass-lined ditch	N/A	X	X	N/A*
Stone-lined ditch/check dams	N/A	X	X	Possibly
Road crowning	N/A	N/A	X	N/A
Gully stabilization	X	X	X	X
Street sweeping	X	N/A	N/A	N/A
Water bars/dips	N/A	N/A	N/A	X* (may be substituted for ditching)
Stable turnouts and conveyances	X	X	X	X

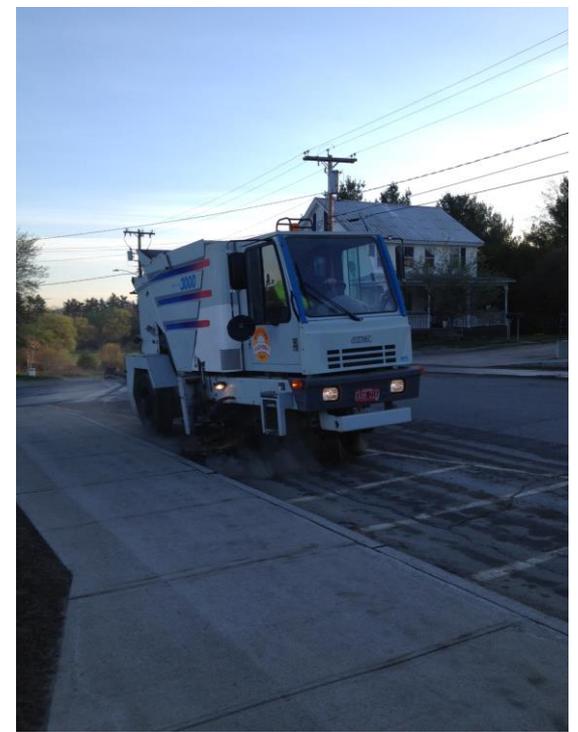
TOWN HIGHWAY TYPICAL



Road crown



Paved Road BMPs



FAQs

Are all road classes covered by the GP?

- Yes, All road classes will be covered by the permit (Classes 1-4)
- Requirements for Class 4 roads will likely be less stringent



Possible Class 4 Road Practices



Will in-stream culvert replacements be part of the MRGP?



- No, only the replacement of drainage culverts
- Drainage culverts will be properly-sized and aligned
- Culverts may require header and/or outlet stabilization

MRGP and VTrans Road and Bridge Standards Compatibility?

- Both standards will be compatible, as they are developed/revised
- The geographic applicability will likely differ



Should towns wait until the MRGP is issued to begin road work?

- Towns that are proactively identifying and addressing road-related water quality issues (consistent with current *Road and Bridge Standards*) will be credited for this work as part of the MRGP compliance.

Assistance to towns?



- Additional grant and cost-share funding is currently available through DEC and VTrans
- Outreach and Technical assistance is available from DEC, VTrans, RPCs, and other organizations.

Draft- MRGP Timeline and deliverables

MRGP Timeline

- Draft permit by end of 2016
- Final permit by end of 2017
- Phase in permit coverage 2018-2021 (TBD)

MRGP Draft Deliverables

- Fall 2018- all towns apply for MRGP coverage
- Fall 2019- Road Stormwater Management Plans (RSWMPs) Due
- Fall 2020 and beyond- towns begin implementing Road SWMPs
- Fall 2024- RSWMP updates due



Vermont Clean Water Initiative: Water Quality Grants for Municipalities

GRANT PROGRAM	DESCRIPTION	FUNDING AVAILABILITY	CONTACT	DUE DATE
Ecosystem Restoration	Municipal capital equipment assistance (e.g. hydroseeders, high efficiency vacuum street sweepers, etc.)	⇒ Total Program Funding: \$395,000 ⇒ Match: 50% MS4 municipalities 20% non-MS4 municipalities	VTDEC David Pasco, Grants Management Specialist david.pasco@vermont.gov 802-490-6112 www.watershedmanagement.vt.gov/grants	Spring 2016 & Fall 2016
Ecosystem Restoration	Erosion/stormwater control projects on high priority private roads	⇒ Total Program Funding: \$30,000 ⇒ Grant Max: \$10,000 ⇒ Match: 20% local	VTDEC David Pasco, Grants Management Specialist david.pasco@vermont.gov 802-490-6112 www.watershedmanagement.vt.gov/grants	Spring 2016 & Fall 2016
Better Roads	Roadway improvements that have a positive impact on water quality	⇒ Grant Max: Category A: \$8,000 Category B: \$20,000 Category C & D: \$40,000 ⇒ Match: 20% local	Alan May, Better Roads Project Coordinator alan.may@vermont.gov 802-828-4585	Annually, late Spring
Town Highway Structures	New, repair, or replacement of structures over 36"	⇒ Grant Max: \$175,000 ⇒ Match: 20%, or 10% if town has a full infrastructure or network inventory and	VTrans District Office	April 15
Town Highway Class 2	Class 2 roadways work	⇒ Grant Max: \$175,000 ⇒ Match: 30%, or 20% if town has a full infrastructure or network inventory and signed Codes & Standards	VTrans District Office	April 15
Transportation Alternatives Program	Environmental mitigation, bike/pedestrian/alternative transportation needs, and community improvement activities	⇒ Grant Max: \$300,000 ⇒ Match: 20% for design/construction, 50% for scoping	Scott Roberson, Project Manager scott.robertson@vermont.gov 802-828-5799	Annually, September



MRGP Stakeholder Groups

- **MRGP Core Team:** DEC, VTrans, VLCT, and RPCs
- **MRGP Technical Team:** DEC and VTrans Technical staff tasked with developing standards

Regional Outreach Groups:

- County road foremen groups
- TAC groups
- RPC transportation planners
- Roads Roundtables
- Town Officer trainings
- Selectboard Institute
- VLCT WQ Advisory Committee
- Flood Resilient Vermont Conference



What's Next?

Development of Draft Permit and standards- with key partners, regional partners, and technical staff



Questions, Comments, Suggestions?

Jim Ryan- DEC Municipal Roads Program

http://www.watershedmanagement.vt.gov/stor_mwater/htm/sw_municipalroads.htm

jim.ryan@vermont.gov

(802) 490-6140