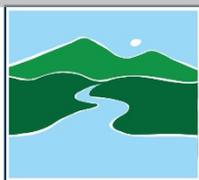


# DEC's Municipal Roads General Permit

Jim Ryan



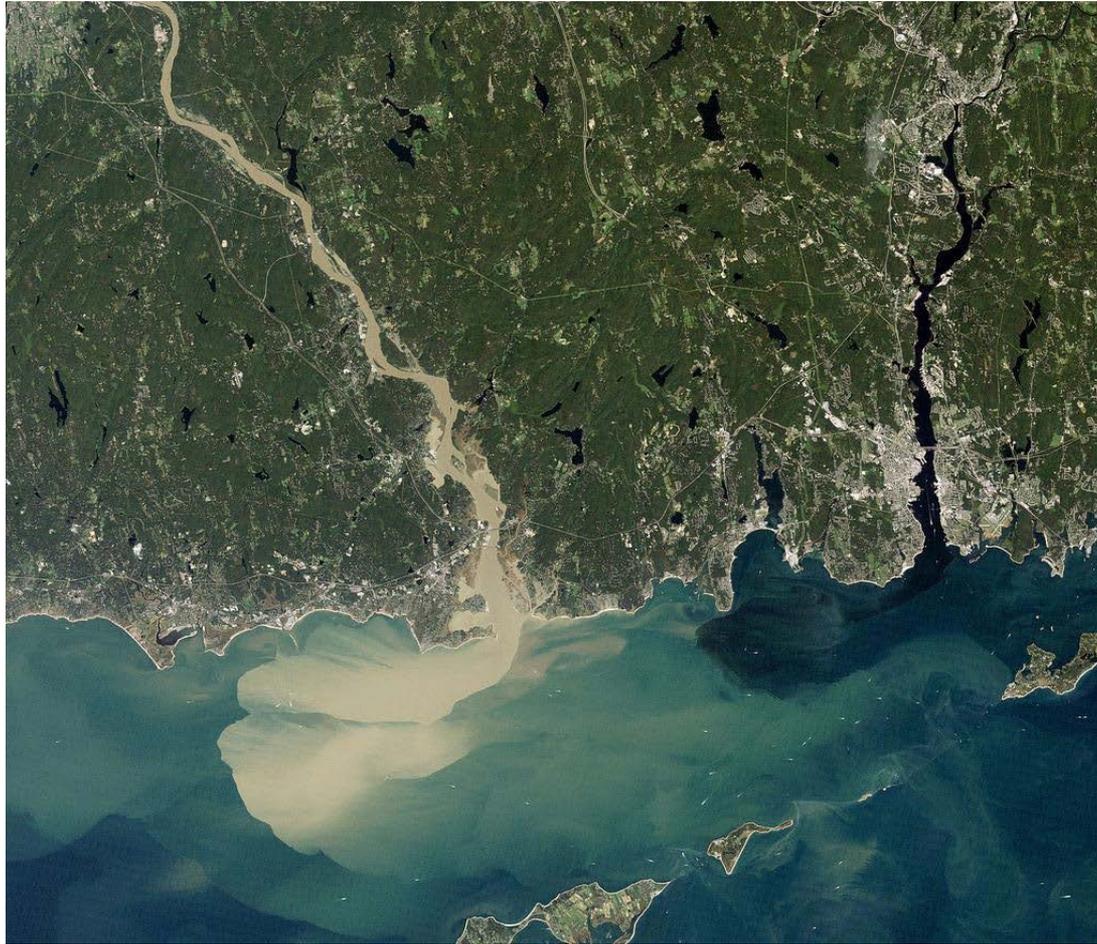
VERMONT DEPARTMENT OF  
ENVIRONMENTAL CONSERVATION  
**WATERSHED  
MANAGEMENT DIVISION**  
STORMWATER PROGRAM

# Problems Facing Our Waters Statewide

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# Long Island Sound Post-TS Irene

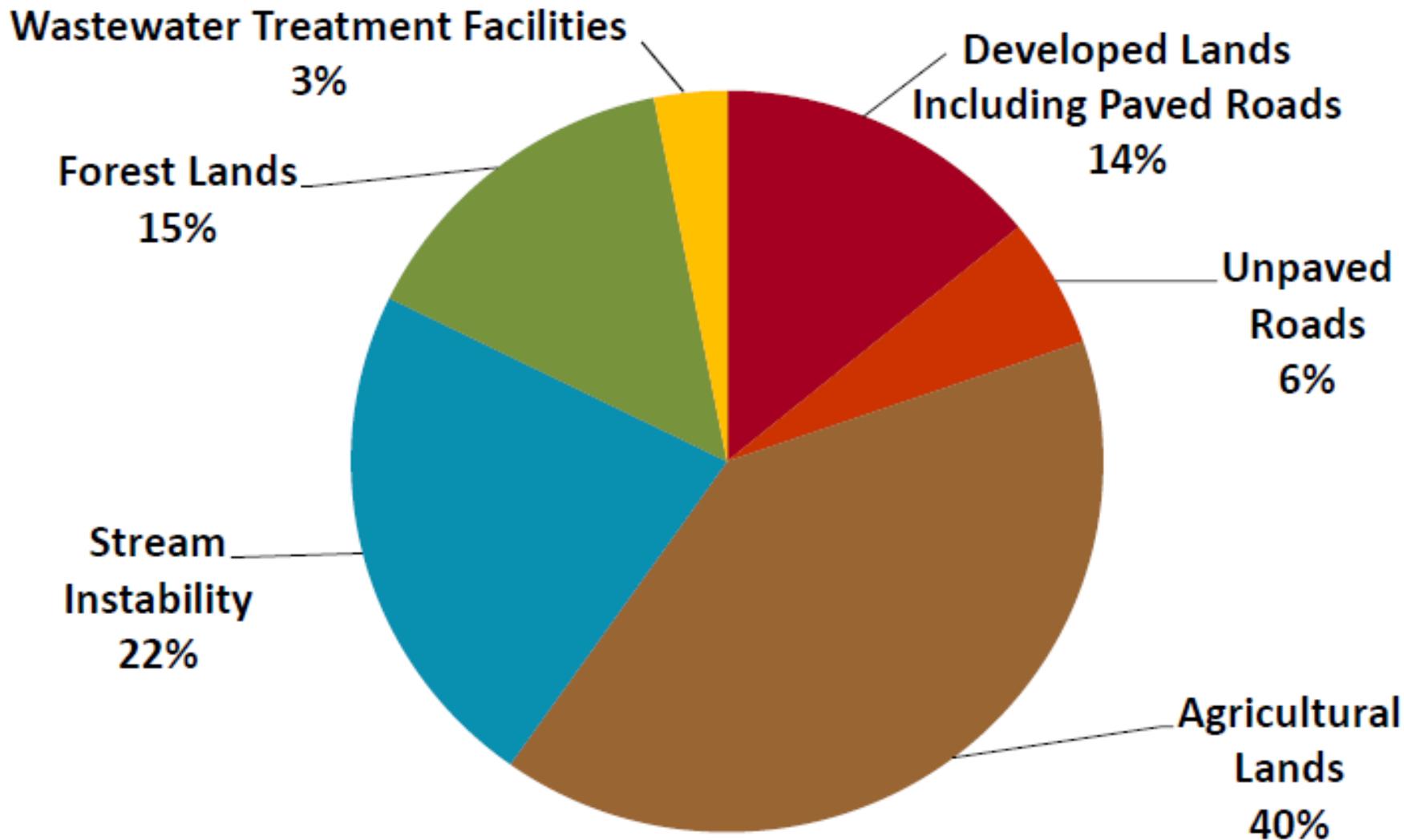


# Lake Champlain post TS-Irene

(photo credit Bill Howland)



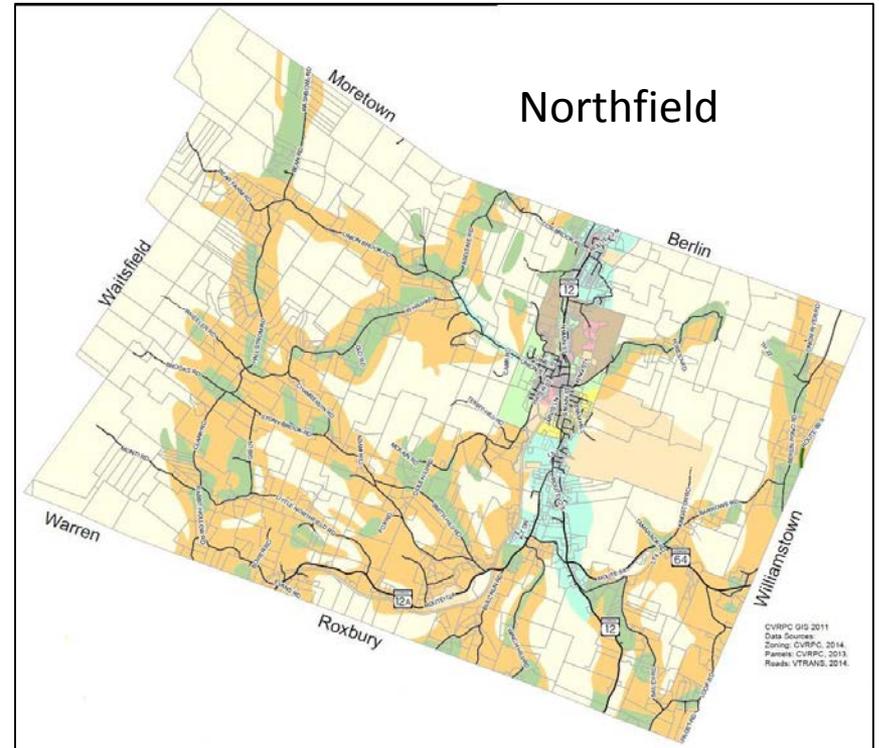
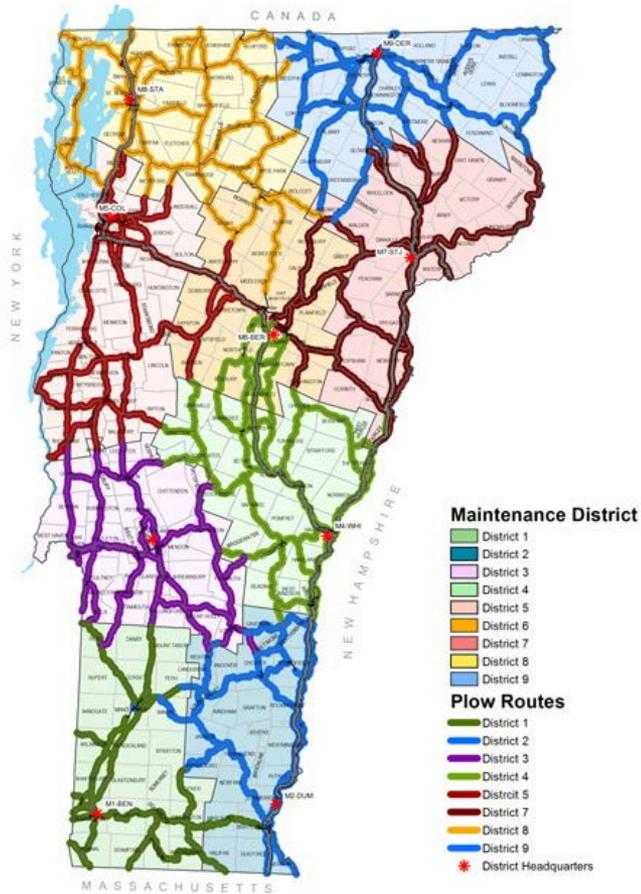
## Sources of phosphorus in the Vermont portion of the Lake Champlain Basin (Preliminary estimates from Tetra Tech, 2013)



# Stormwater & Roads

VTrans TS4 Permit

Municipal roadways



# 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



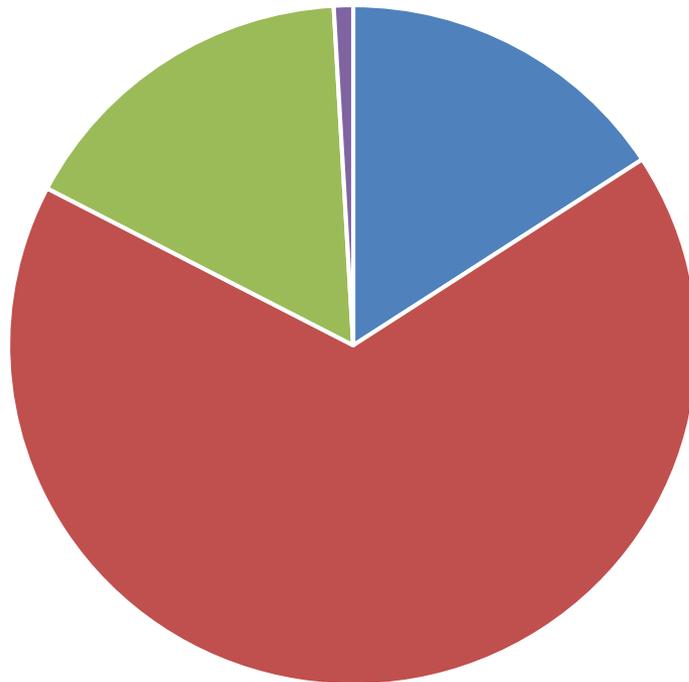
Wemple



Bryan Pfeiffer

# Vermont Road Mileage

Road Miles



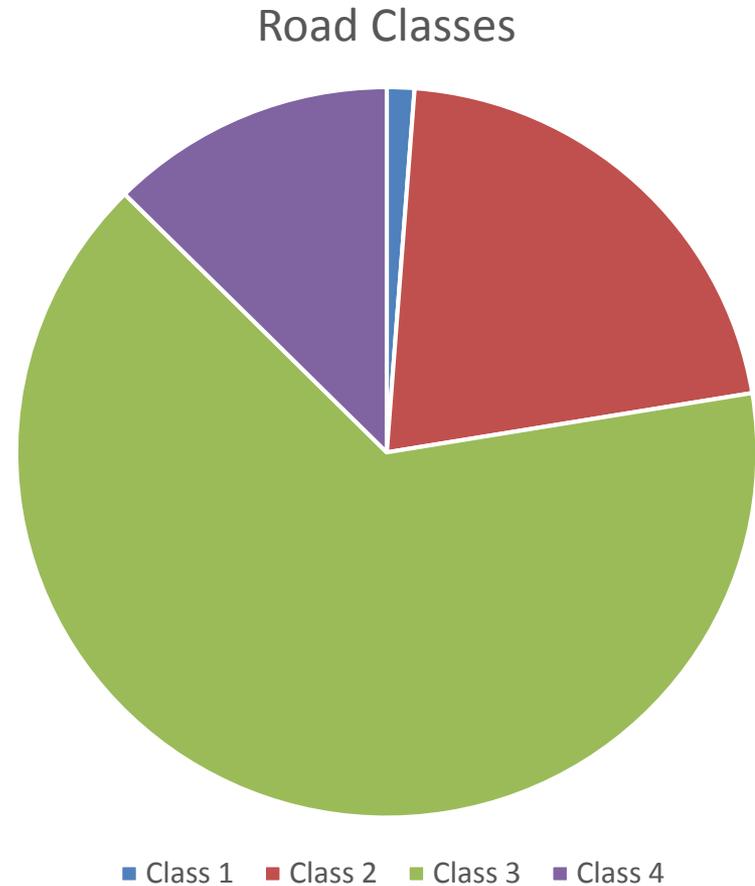
■ State Highway ■ Municipal roads  
■ Private roads ■ Federal roads

- 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

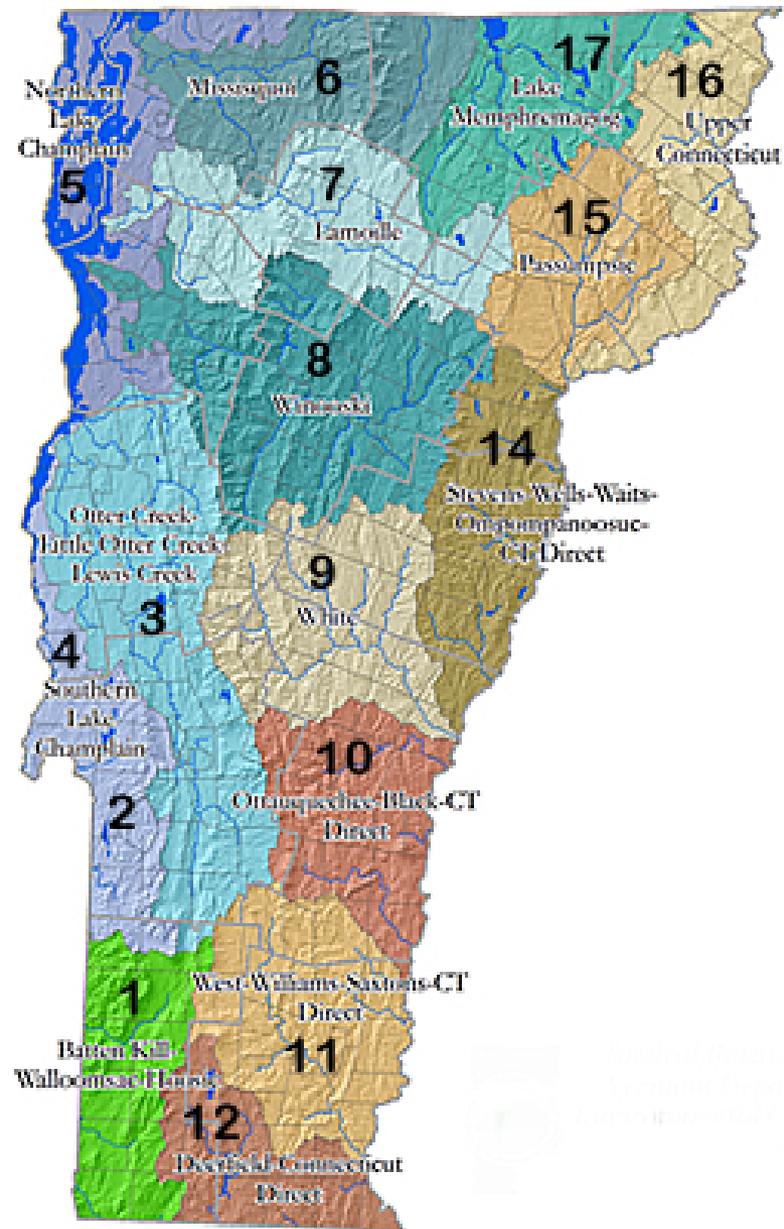
## Road Class Distribution

- Class 1: 1.2% (VTrans and municipally- maintained)
- Class 2: 21.2%
- Class 3: 65.1%
- Class 4: 12.5%



# Municipal Roads General Permit (MRGP)

- Will cover all Vermont municipalities
- Jurisdiction limited to ROW



# Purpose of the Roads Permit

- Bring **connected** road segments up to basic maintenance standards



- By implementing **Best Management Practices (BMPs)** necessary to reduce erosion

# Hydrologically-connected Road Segments

The screenshot displays a web browser window with the URL <http://anr.vermont.gov/maps/nr-atlas>. The browser's address bar shows the page title "Natural Resources Atlas | A..." and the location "Montpelier, VT Interactive Wea...". The browser's menu bar includes "File", "Edit", "View", "Favorites", "Tools", and "Help".

The main content area features a navigation menu on the left with the following items: "ABOUT US", "Planning and Permitting", "Maps and Mapping", "Natural Resources Atlas", "Web Maps", "GIS Data", "Downloadable Maps", "You and the Environment", and "Contact Us".

The central map is titled "Natural Resources Atlas" and "Vermont Agency of Natural Resources" with the "vermont.gov" logo. A "Quick Tools..." button is located above the map. The map itself is a satellite-style view of a forested area with several water bodies and roads. Key features include:

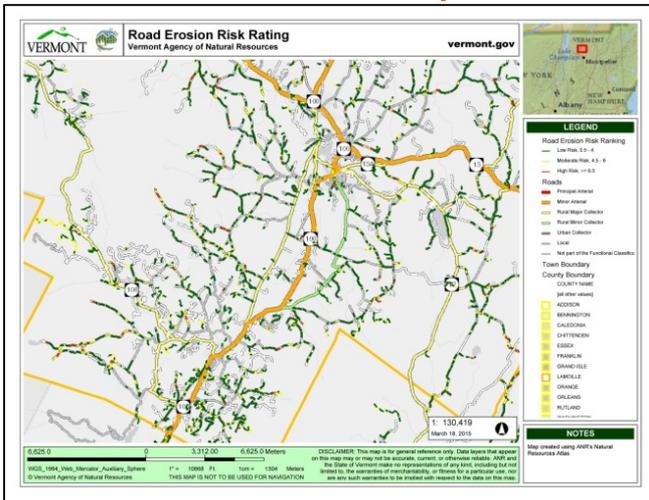
- Water Bodies:** Walcott Pond, Tucker Brook, Keeler Brook, Tamarack Brook, and Cass Brook.
- Roads:** Several roads are highlighted in purple, indicating they are hydrologically connected. These include roads near Walcott Pond, Tucker Brook, and Keeler Brook.
- Map Controls:** A vertical toolbar on the left side of the map includes a home button, a search icon, a zoom in (+) button, a zoom out (-) button, and a full-screen button.
- Scale and Attribution:** A scale bar at the bottom left shows 0, 0.3, and 0.6 km. Attribution at the bottom right reads "© 2010 DigitalGlobe, Image courtesy of USGS, Earthstar Geographics...".

The Windows taskbar at the bottom of the screen shows the system tray with the time "3:46 PM" and date "8/25/2016". The taskbar includes icons for the Start menu, Internet Explorer, Google Chrome, Microsoft Word, Microsoft Outlook, and several other applications.

# Permit Framework

- Municipalities develop and implement Road Stormwater Management Plans

## Inventory



## Prioritize



## Implement



# Road Stormwater Management Plans

Plan components *will likely* include:

- Road erosion **inventory** of Hydrologically-connected segments
- **Implementation Plan** and **Schedule** to bring non-complying road segments to MRGP standards

New inventory and Implementation Plan **every 5 years**

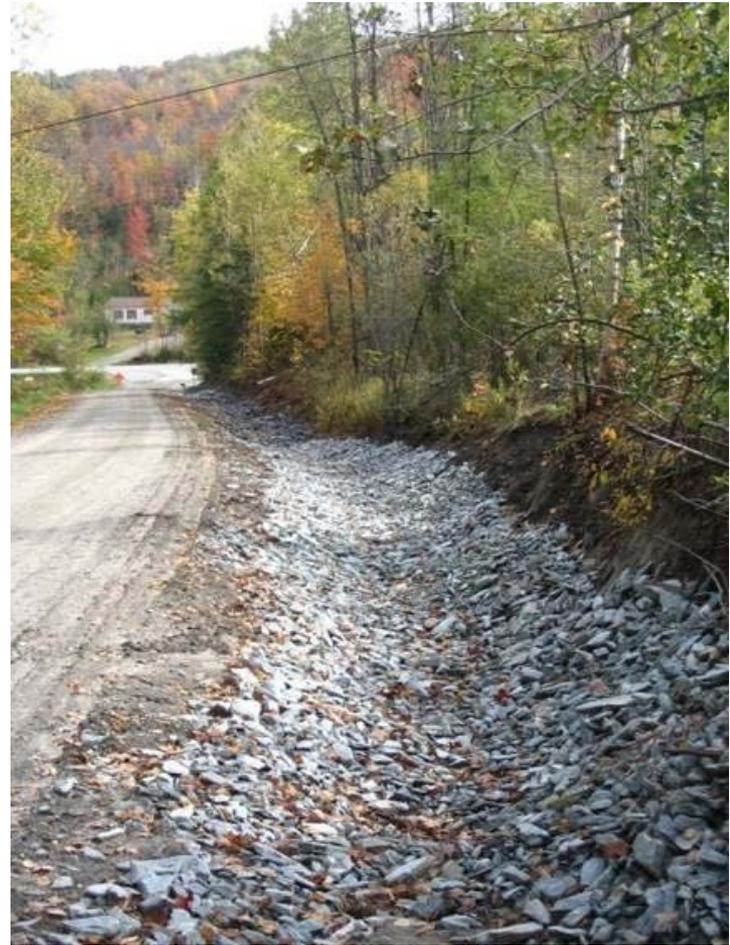


# Likely MRGP Practices:

- Stone-lined ditches and check dams
- Grass-lined drainage ditches
- Turn outs
- Road crowning
- Properly sized drainage culverts
- Culvert headers
- Culvert outlet stabilization



**Water quality BMPs= Good road drainage practices=  
Long term \$\$ savings**

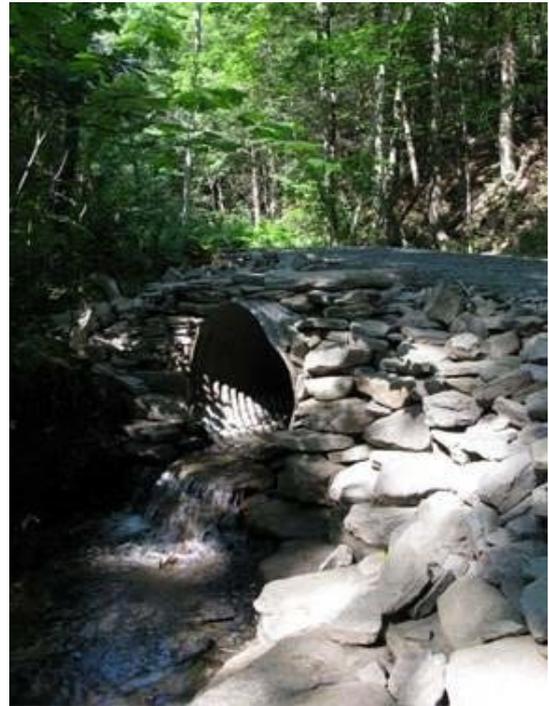
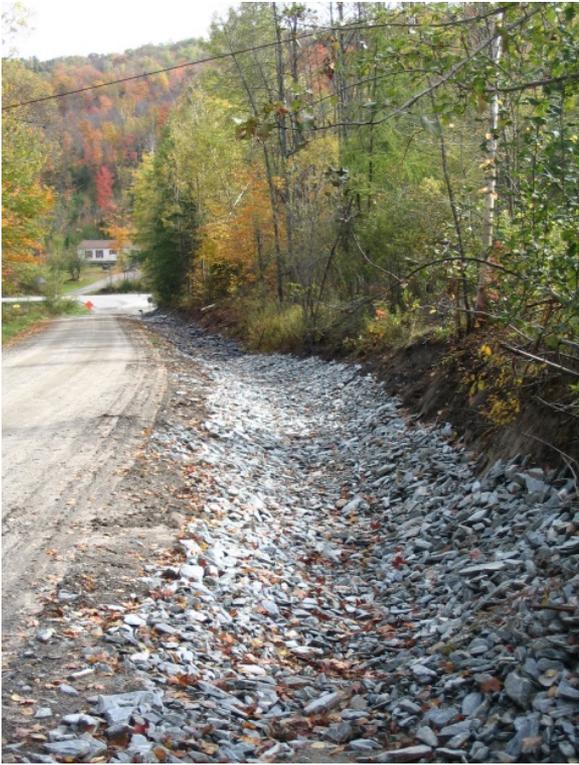


# Municipal Sand Piles



# 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	If erosion present
Culvert headwalls/ stable outlets	X	X	X	If erosion present
Grass-lined ditch	N/A	X	X	If erosion present
Stone-lined ditch/check dams	N/A	X	X	If erosion present
Road crowning	N/A	N/A	X	N/A
Gully stabilization	At CB outlets	X	X	X
Water bars/dips	N/A	N/A	N/A	If erosion present (may be substituted for ditching)
Stable turnouts and conveyances	X	X	X	If erosion present





**Regularly inspect and maintain your catch basins to avoid any surprises!**



# MRGP- Town Example

Town A. has 50 total road miles

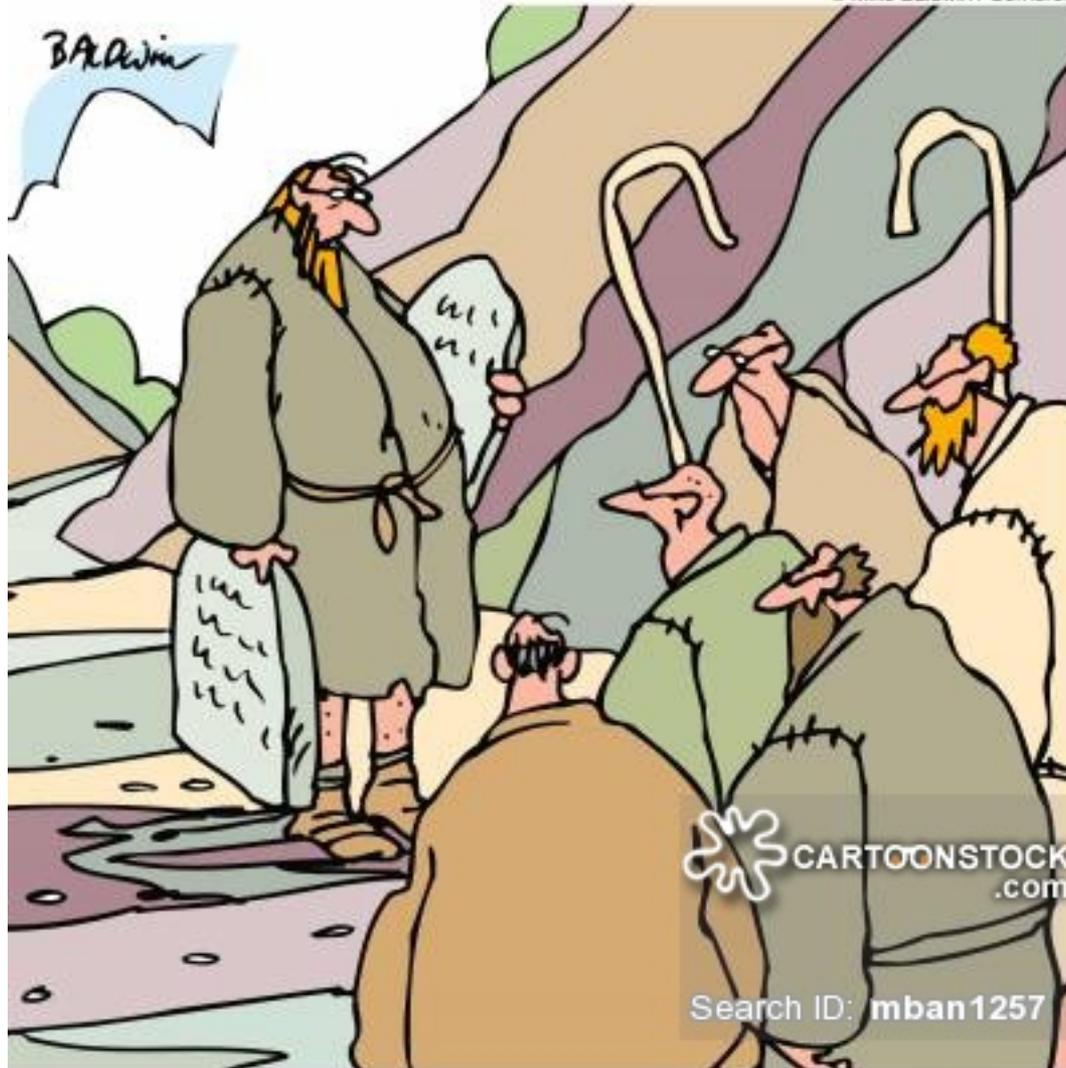
- 25 road miles are **hydrologically-connected** road segments
- 25 miles not considered **connected** (no BMP work needed)
- 15 **connected** road miles currently fully meet MRGP standards (maintenance of BMPs only)
- 10 remaining **connected** miles- required to be brought up to MRGP standards

# MRGP Town Example

**Town B. has 100 miles of road**

- 65 miles are considered hydrologically-connected
- Town has proactively addressed 35 miles (installed BMPs)
- 30 miles of road will need BMP installation and have up to 20 years to implement (or sooner) Approximately 1.5 miles of road per year would need treatment

# FAQs



“The first commandment is: Thou shalt not shoot the messenger.”

# New MRGP Fees?

- \$400/application fee (every 5 years)
- \$2,000/annual operating fee
- Fee established through Act 64



# Are all road classes covered by the MRGP?

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



# 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?

- Practices Standards will be compatible
- The geographic applicability will likely differ



# Summary for municipalities:

- New DEC municipal roads general permit
- Application coverage and annual fees to begin in 2018 (currently proposed)
- Road erosion inventories for connected roads
- Implementation plans and schedules
- Road BMP implementation and brief annual compliance reports
- New inventories and implementation plans every 5 years

# Assistance to towns?



- Funding
- Outreach and Technical assistance
- Shared Equipment

## 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



# Transportation Sector Timeline of Deliverables

Fall 2015 &  
Winter 2016

Outreach to municipalities and regional planning commissions will start

2016

Undertake stakeholder process to develop permit and standards

Winter 2016



Fall 2016 &  
Winter 2017

Draft municipal roads general permit

2017

Issue TS4 permit for State Road System

December 31<sup>st</sup> 2016

Fall 2017 &  
Winter 2018

Issue municipal roads general permit

2018

2018-2021

Specific permit application and implementation deadlines will vary and will be determined during the development process



# MRGP Timeline and deliverables

## MRGP Timeline

- 12/2016- Draft permit
- 12/2017 Final permit

## MRGP Deliverables (Proposed)

- Summer-Fall 2018- Towns apply for coverage
- Fall 2019- Road Stormwater Management Plans Due
- Fall 2020 implementations begins
- Fall 2024- Inventory updates due



# MRGP Stakeholder Groups

- **Core Team**
- **Technical Team**

## **Regional Outreach Groups:**

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



# What's Next?

Development of Draft  
Permit and standards



Questions, Comments, Suggestions?

Jim Ryan- DEC Municipal Roads Program

<http://dec.vermont.gov/watershed/stormwater/permit-information-applications-fees/municipal-roads-program>

[jim.ryan@vermont.gov](mailto:jim.ryan@vermont.gov)

(802) 490-6140