



Jim Ryan

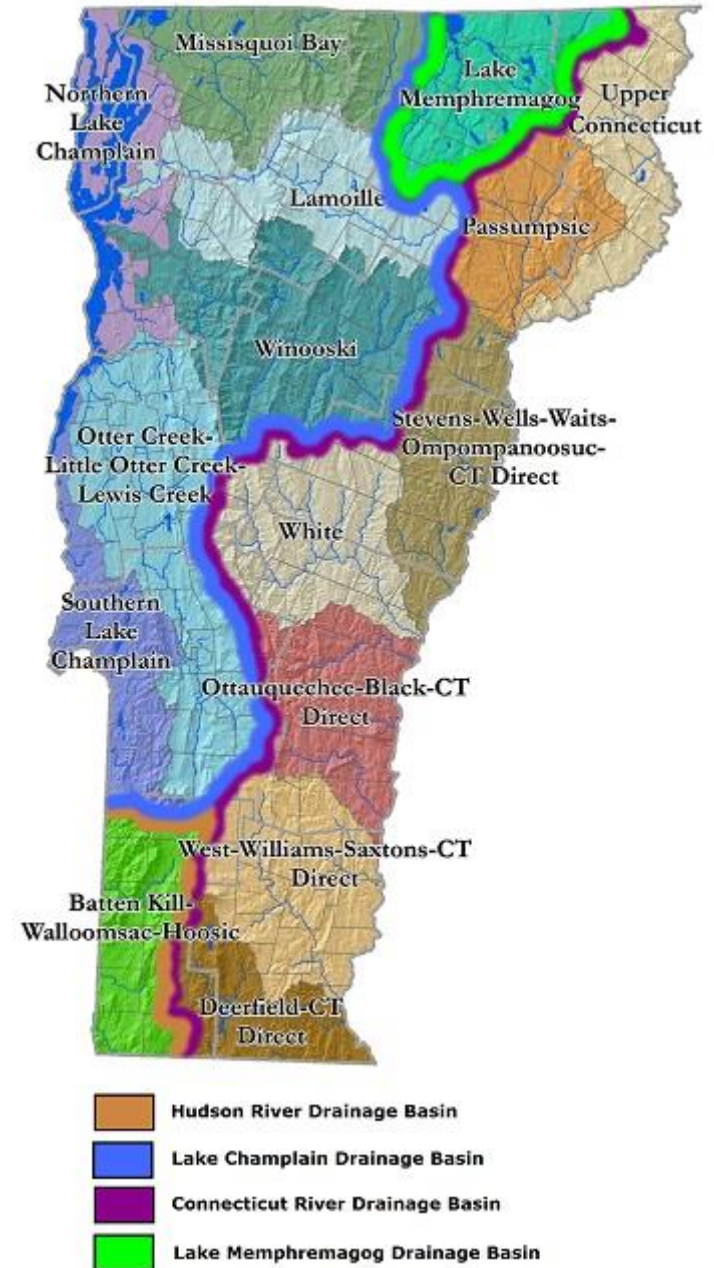


VERMONT DEPARTMENT OF
ENVIRONMENTAL CONSERVATION
WATERSHED
MANAGEMENT DIVISION
STORMWATER PROGRAM

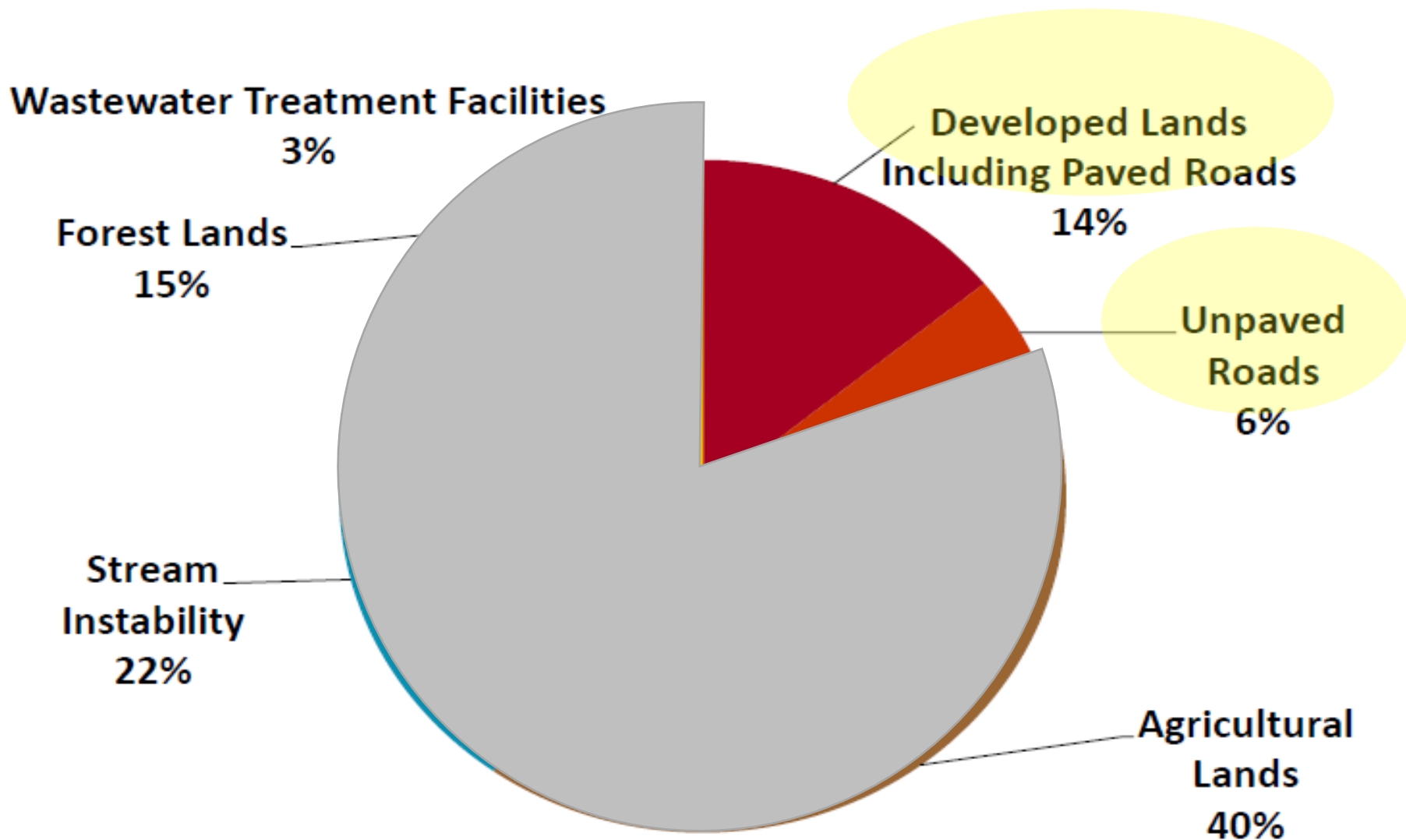
VT DEC Municipal Roads Stormwater General Permit (MRGP)- Update

Why the MRGP? Total Maximum Daily Loads (TMDL) are federally-required

- Lake Champlain – Phosphorus
- Lake Memphremagog – Phosphorus
- Connecticut River to Long Island Sound – Nitrogen



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



Photo Credits: Beverley Wemple

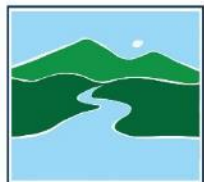
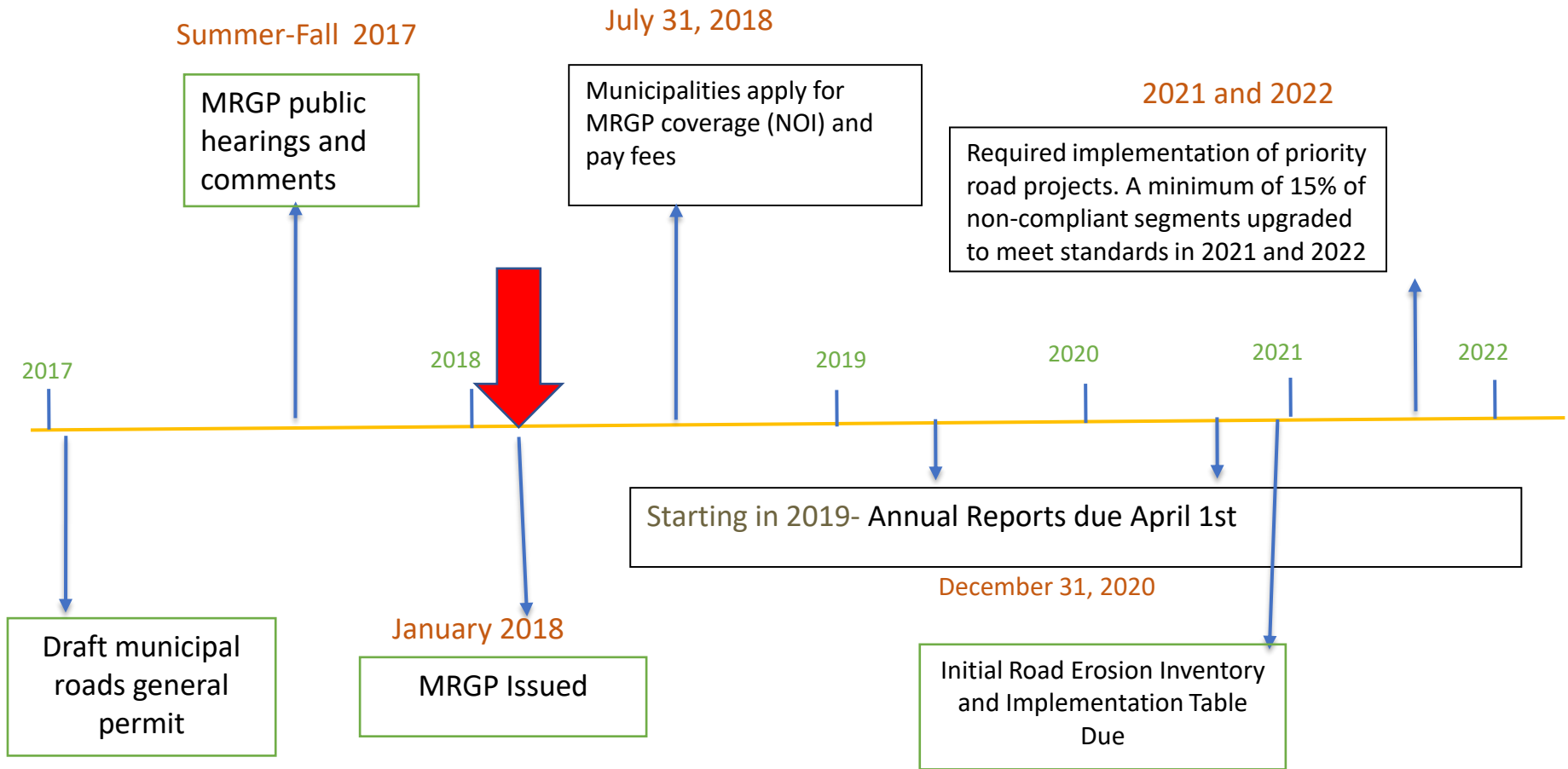


Wemple



Bryan Pfeiffer

MRGP Timeline of Deliverables (Near-Term)



Overall MRGP Compliance

- 100% compliance for annual fee payment (highest DEC compliance)
- 95% compliance for Road Erosion Inventory completion



MRGP steps for towns: Inventory, Prioritize, and Upgrade



Inventory



Implement

Prioritize - Implementation Table

Segment Num :	Road Name :	ID	Date	Reason	Road Type	Slope	Cracks	Burn / Weather	Drainage	Conveyance	Dike Culvert	Drainage Culvert	Status :	Priority :
@ 10443	BLUSH HILL RD	500	7/1/2017	Work Done	Paved - Non Curbed	6.75	F	F	F	F			Fully Meets	
@ 10446	BLUSH HILL RD	502	7/1/2017	Work Done	Paved - Non Curbed	7.79	F	F	F	F			Fully Meets	
@ 10447	BLUSH HILL RD	504	7/1/2017	Work Done	Paved - Non Curbed	13.96	F	F	F	F			Fully Meets	
@ 106187	GREGG HILL RD	507	7/1/2017	Work Done	Paved - Curbed	6.45	F	F	F	F			Fully Meets	
@ 106200	GREGG HILL RD	505	7/1/2017	Work Done	Paved - Non Curbed	0.13	F	F	F	F			Fully Meets	
@ 106201	GREGG HILL RD	226	1/1/2017	Initial Inventory	Paved - Curbed	6.42			F	F			Fully Meets	
@ 106218	GREGG HILL RD	514	7/1/2017	Work Done	Paved - Curbed	5.86			F	F			Fully Meets	
@ 106223	GREGG HILL RD	511	7/1/2017	Work Done	Paved - Curbed	12.13			F	F			Fully Meets	
@ 106224	GREGG HILL RD	516	7/1/2017	Work Done	Paved - Curbed	1.81			F	F			Fully Meets	
@ 106226	GREGG HILL RD	508	7/1/2017	Work Done	Paved - Curbed	6.16			F	F			Fully Meets	
@ 106227	GREGG HILL RD	512	7/1/2017	Work Done	Paved - Curbed	2.5			F	F			Fully Meets	
@ 106230	GREGG HILL RD	213	1/1/2017	Initial Inventory	Class 4	3.33							Fully Meets	
@ 106233	GREGG HILL RD	509	7/1/2017	Work Done	Paved - Curbed	5.76			F	F			Fully Meets	
@ 106239	GREGG HILL RD	227	1/1/2017	Initial Inventory	Paved - Curbed	10.58			D	F			Does Not Meet	Very High
@ 106241	GREGG HILL RD	510	7/1/2017	Work Done	Paved - Curbed	0.15			F	F			Fully Meets	
@ 106242	GREGG HILL RD	513	7/1/2017	Work Done	Paved - Curbed	6.45			F	F			Fully Meets	
@ 106247	GREGG HILL RD	506	7/1/2017	Work Done	Paved - Curbed	5.11			F	F			Fully Meets	
@ 106248	GREGG HILL RD	515	7/1/2017	Work Done	Paved - Curbed	5.14			F	F			Fully Meets	
@ 106599	GROVE LN	229	1/1/2017	Initial Inventory	Paved - Curbed	6.98			F	D			Does Not Meet	High
@ 106600	GROVE LN	220	1/1/2017	Initial Inventory	Paved - Curbed	3.30			F	F			Fully Meets	
@ 106601	GROVE LN	230	1/1/2017	Initial Inventory	Paved - Curbed	10.18			P	F			Partially Meets	Moderate
@ 111105	HENRY HOUGH RD	243	1/1/2017	Initial Inventory	Paved - Curbed	15.67			D	F			Does Not Meet	Very High
@ 115163	HUBBARD FARM RD	250	1/1/2017	Initial Inventory	Paved - Non Curbed	6.85	F	F	F	F			Fully Meets	
@ 115165	HUBBARD FARM RD	248	1/1/2017	Initial Inventory	Paved - Non Curbed	8.18	D	F	F	D			Does Not Meet	High
@ 115168	HUBBARD FARM RD	249	1/1/2017	Initial Inventory	Paved - Non Curbed	5	P	P	P	F			Does Not Meet	High
@ 115433	HUNGER MTN RD	251	1/1/2017	Initial Inventory	Paved - Curbed	0.05			F	D			Does Not Meet	Moderate
@ 11991	ARMORY AV	195	1/1/2017	Initial Inventory	Paved - Non Curbed	5.93			F	F			Incomplete Data	Incomplete Data





Road Erosion Inventories (REIs)

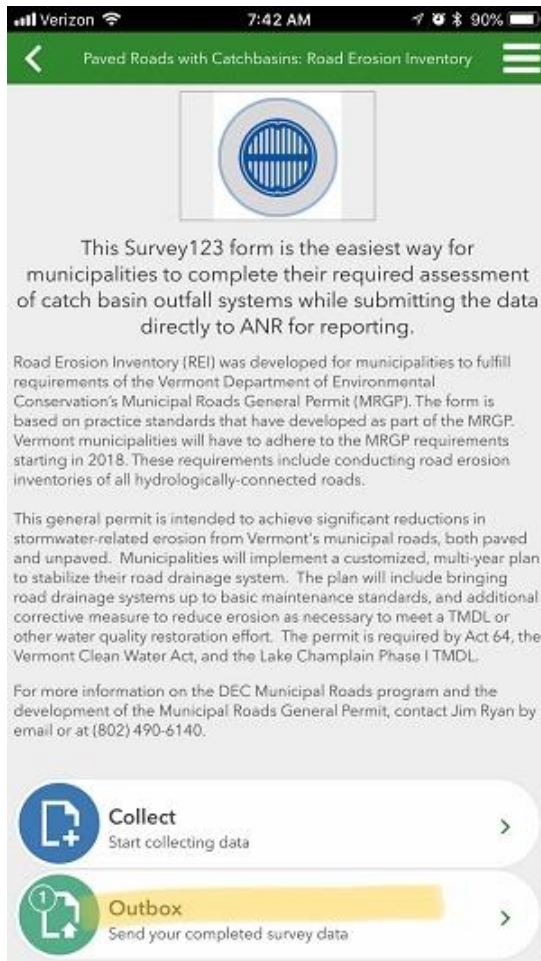
Separate REIs and standards for:

- Paved and gravel roads with ditches
- Paved roads with catch basins
- Class 4 roads


REI “scores” for each 328 foot segment:

- *Fully Meets*
- *Partially Meets* or
- *Does Not Meet*

MRGP Requirements: Road Erosion Inventory



Paved Roads with Catchbasins: Road Erosion Inventory



This Survey123 form is the easiest way for municipalities to complete their required assessment of catch basin outfall systems while submitting the data directly to ANR for reporting.

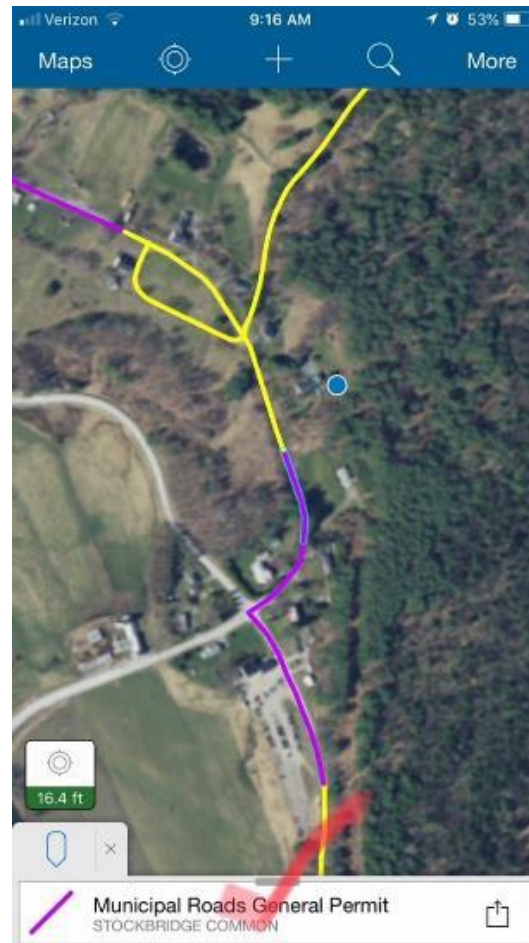
Road Erosion Inventory (REI) was developed for municipalities to fulfill requirements of the Vermont Department of Environmental Conservation's Municipal Roads General Permit (MRGP). The form is based on practice standards that have developed as part of the MRGP. Vermont municipalities will have to adhere to the MRGP requirements starting in 2018. These requirements include conducting road erosion inventories of all hydrologically-connected roads.

This general permit is intended to achieve significant reductions in stormwater-related erosion from Vermont's municipal roads, both paved and unpaved. Municipalities will implement a customized, multi-year plan to stabilize their road drainage system. The plan will include bringing road drainage systems up to basic maintenance standards, and additional corrective measure to reduce erosion as necessary to meet a TMDL or other water quality restoration effort. The permit is required by Act 64, the Vermont Clean Water Act, and the Lake Champlain Phase I TMDL.

For more information on the DEC Municipal Roads program and the development of the Municipal Roads General Permit, contact Jim Ryan by email or at (802) 490-6140.

Collect
Start collecting data

Outbox
Send your completed survey data



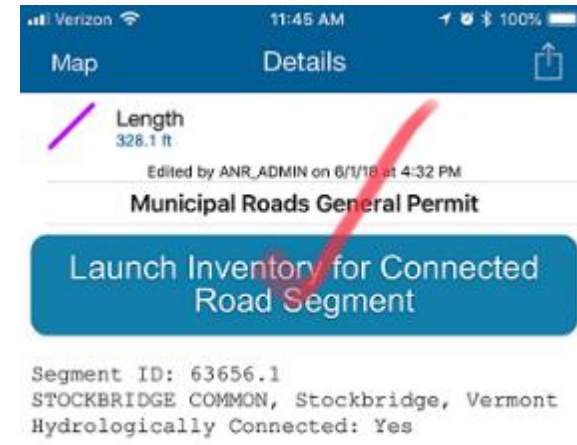
Maps

9:16 AM

53%

Municipal Roads General Permit
STOCKBRIDGE COMMON

16.4 ft



Map **Details**

11:45 AM

100%

Length
328.1 ft

Edited by ANR_ADMIN on 6/1/18 at 4:32 PM

Municipal Roads General Permit

Launch Inventory for Connected Road Segment

Segment ID: 63656.1
STOCKBRIDGE COMMON, Stockbridge, Vermont
Hydrologically Connected: Yes

Hydrologically-Connected Roads

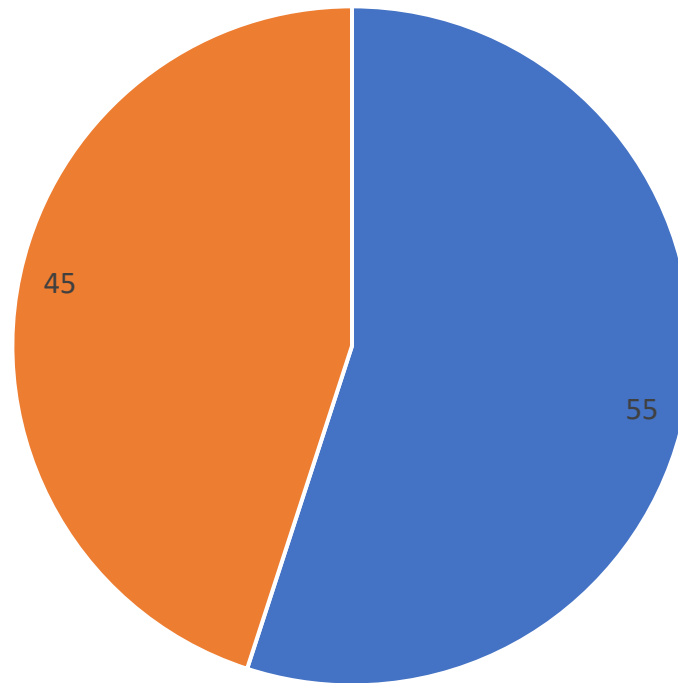
Connected Criteria:

- ▶ Within 100' of a water resource
- ▶ Bisects (crosses) and drains to a water resource
- ▶ Located within the DEC river corridor
- ▶ Connectivity status can be changed during the inventories
- ▶ Catch basin outfalls within 500' of a water resource and those segments associated with those outfalls

Water Resources:

- ▶ Perennial streams
- ▶ Intermittent streams/Defined channel (even if dry)
- ▶ Wetlands
- ▶ Lakes and Ponds

Percent of municipal roads hydrologically-connected and under MRGP requirements



■ Hydrologically connected ■ Not connected

Standards Check List:

Does your road have a good crown?

Are the road shoulders lower than the travel lane?

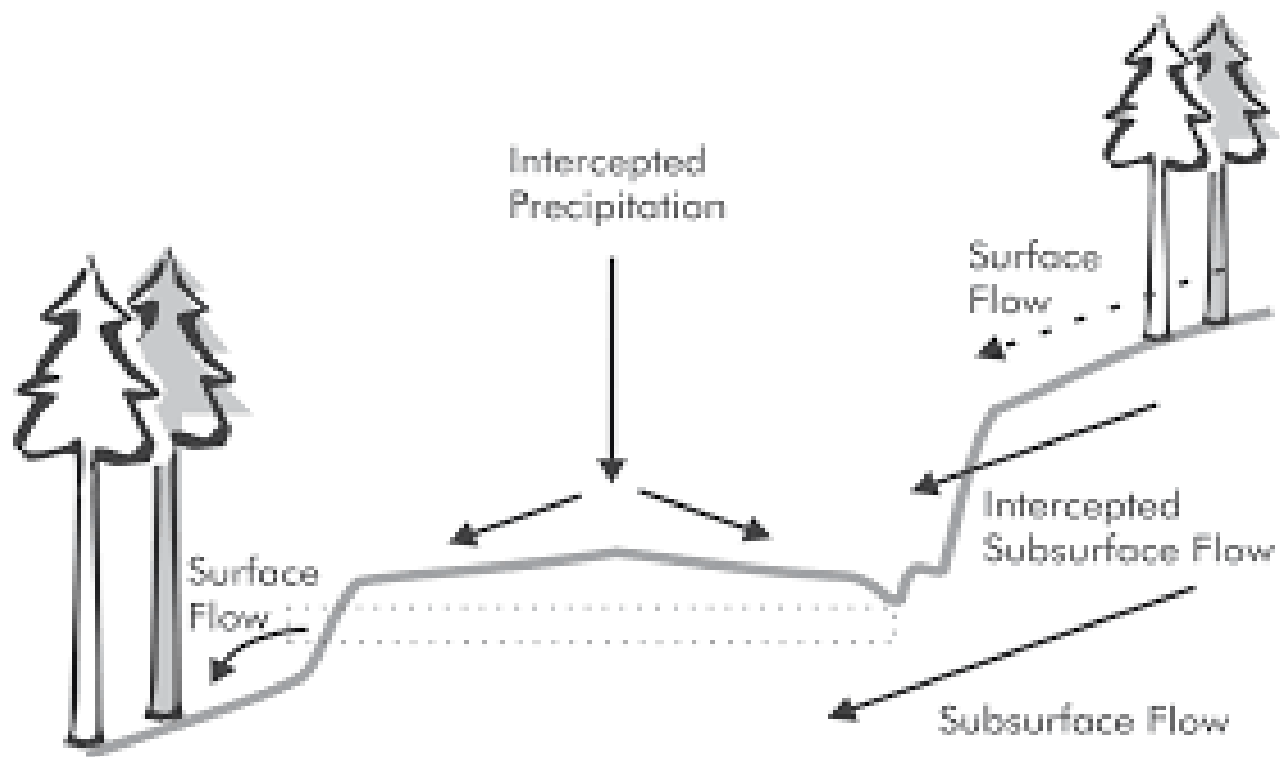
If no, question- do you have an adequate ditch?

Is your ditch stone lined if 8 percent or higher?

Is your ditch stone lined or have check dams or have 2 cross culverts or turnouts if 5-7.99 percent slope?

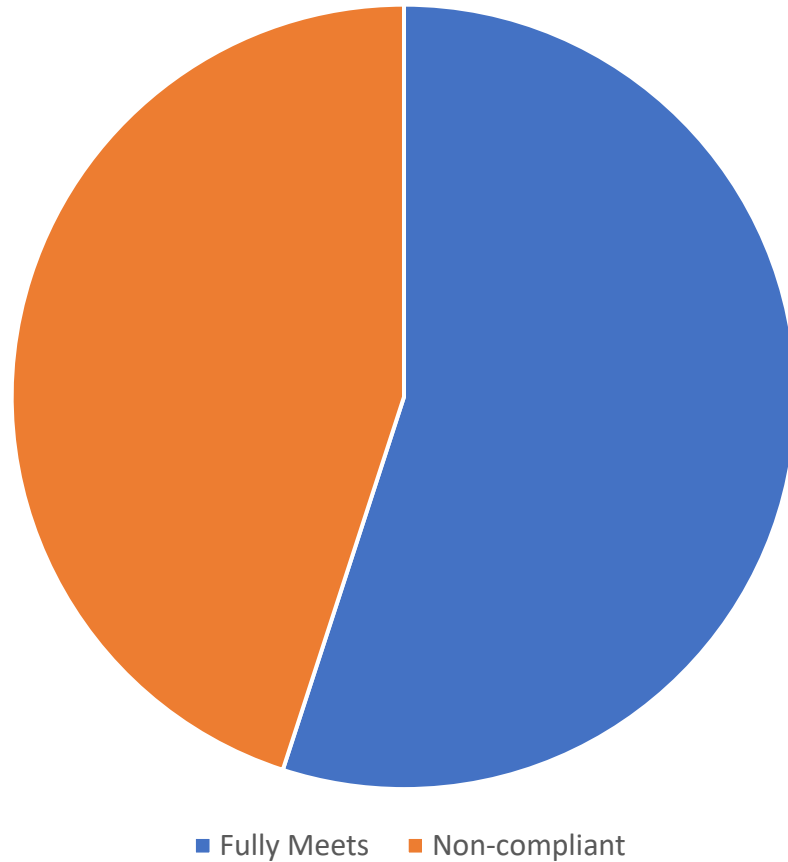
Are your ditches turned away from water and/or stable?

Are your drainage and drive culverts adequately sized and not eroding?



MRGP Road Compliance has increased 5%

328 miles of road now meet standards



MRGP Implementation Table

Segment		Assessment											Status :	Priority :
Num :	Road Name :	ID	Date	Reason	Road Type	Slope	Crown	Berm / windrow	Drainage	Conveyance	Dive Culvert	Drainage Culvert		
10443	BLUSH HILL RD	500	7/1/2017	Work Done	Paved - Non Curbed	6.75	F	F	F	F			Fully Meets	
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1199.1	ARMORY AV	195	1/1/2017	Initial Inventory	Paved - Non Curbed	5.93			F	F			Incomplete Data	Incomplete Data

DEC and Partner Organizations



- Regional Planning Commissions
- VLCT
- Natural Resource Conservation Districts
- VTrans- Local Roads, Better Roads, and District staff
- Agency of Digital Services
- DEC

Annual Newsletter to all MRGP towns



Municipal Road General Permit (MRGP) What's New (and Due) for 2022

Here are some upcoming important Vermont Municipal Roads General Permit (MRGP) related schedules and permit requirements, training opportunities, and resources available to towns in 2022.



Due Dates and Requirements for 2022

Due Date	Requirement	Fee
April 1	Annual Report Form	--
June 1	Annual Fee	\$500, \$1350, or \$1800 - prorated based on population & road miles



Types of Collaboration

- Technical and administrative assistance to towns
- Grant funding for inventories, implementation and equipment
- Collaborative trainings- DEC and VTrans Roads Roundtables (On-line during the Pandemic)

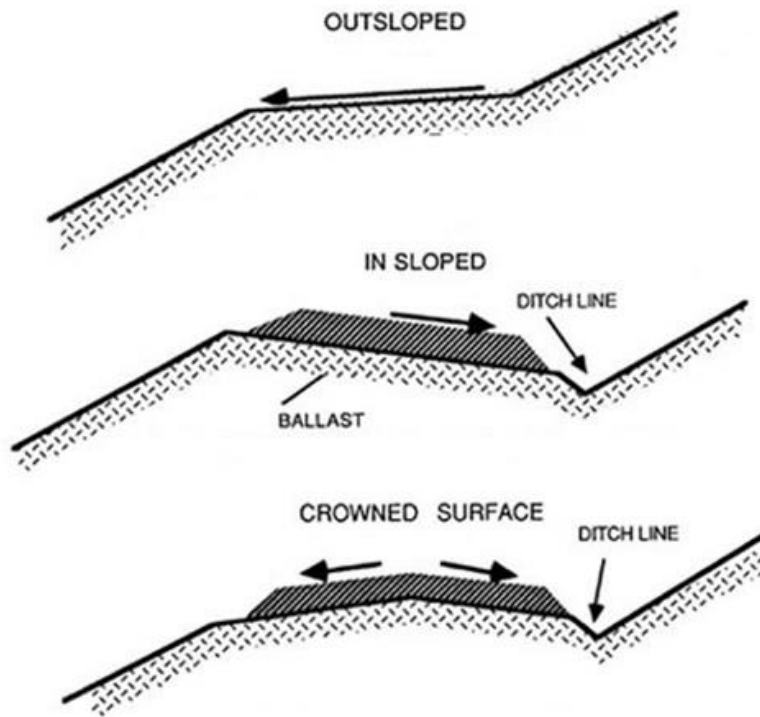


Private Roads and ANR Forest Roads Inventories being developed

- DEC and the Agency of Digital Services is assisting FPR, the Lake Champlain Basin Program and Regional Planning Commissions
- New private roads and ANR forest road inventory apps and map layers have been developed using the MRGP template



We are in the 5th and last year of the first MRGP permit cycle



- DEC has reconvened the MRGP Core Team to assist in the re-issuance of the MRGP for the second 5-year permit cycle
- The re-issued MRGP will run 1/2023-1/2028 (approximately)
- A new REI will be required during the next permit cycle
- Road upgrade requirements will continue until 12/2036 as defined in Act 64

For Additional information:

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



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