



Evelyn Boardman



VERMONT DEPARTMENT OF
ENVIRONMENTAL CONSERVATION
WATERSHED
MANAGEMENT DIVISION
STORMWATER PROGRAM

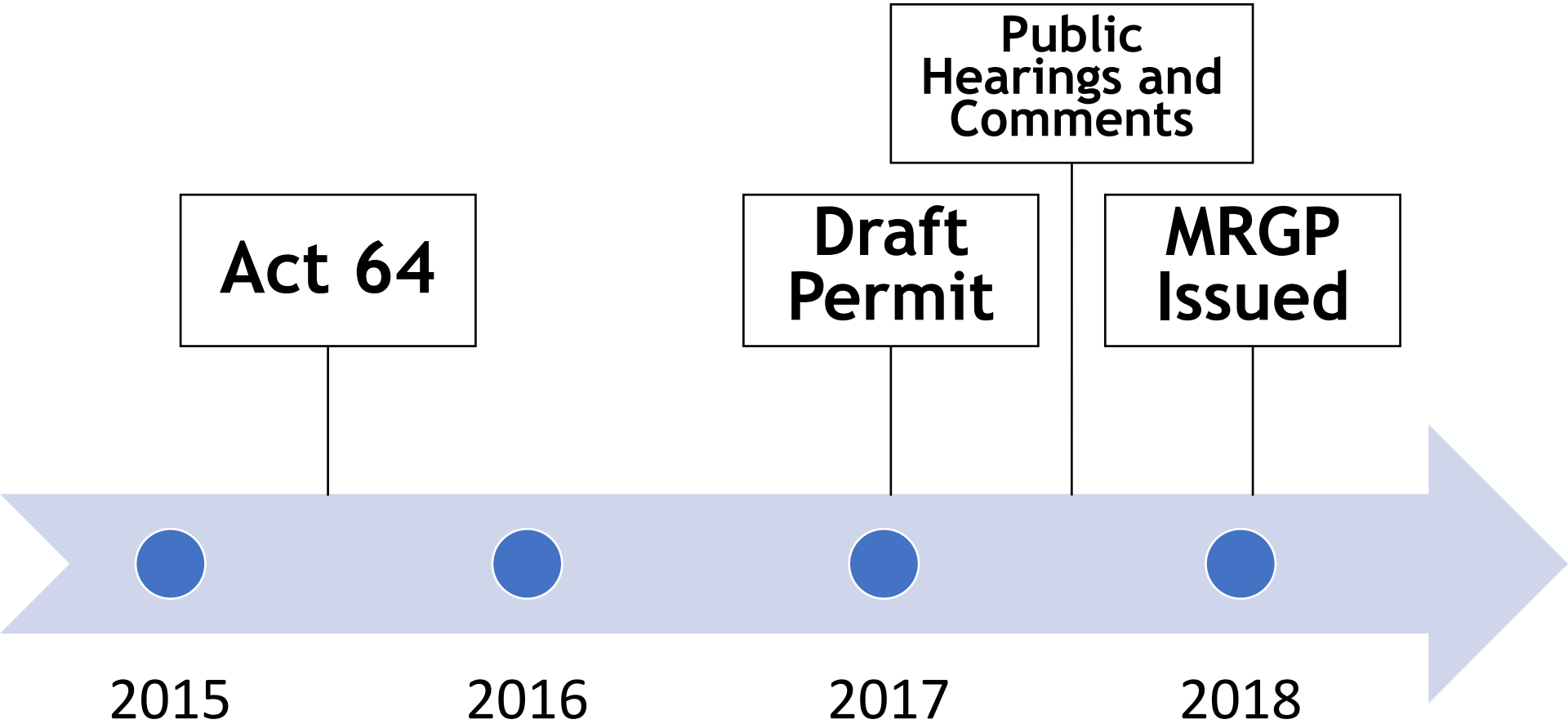
Municipal Roads Stormwater General Permit (MRGP)

Potential Road Pollutants

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



History of the MRGP



Reissuance of the MRGP: Overview

Upgrade 7.5% Each Year
Including 20% of Very High Priority

Municipalities
Reapply for
MRGP

Annual Fees and
Annual Reports Due

Road Erosion
Reassessment
Due

2036: All
Roads
Meet MRGP
Standard

2023

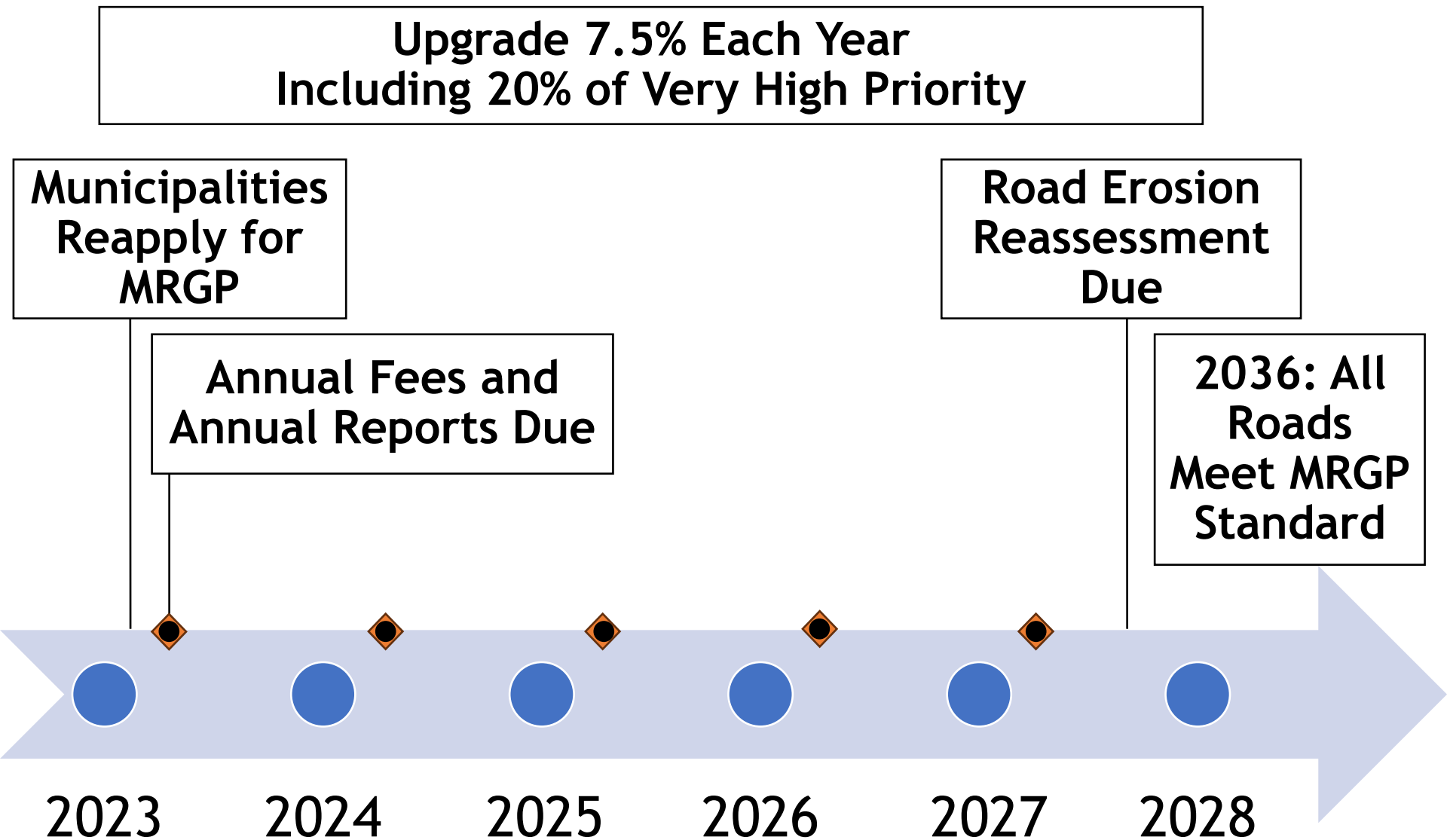
2024

2025

2026

2027

2028



MRGP Standards for Hydrologically Connected Roads

Crown

Grader
Berm

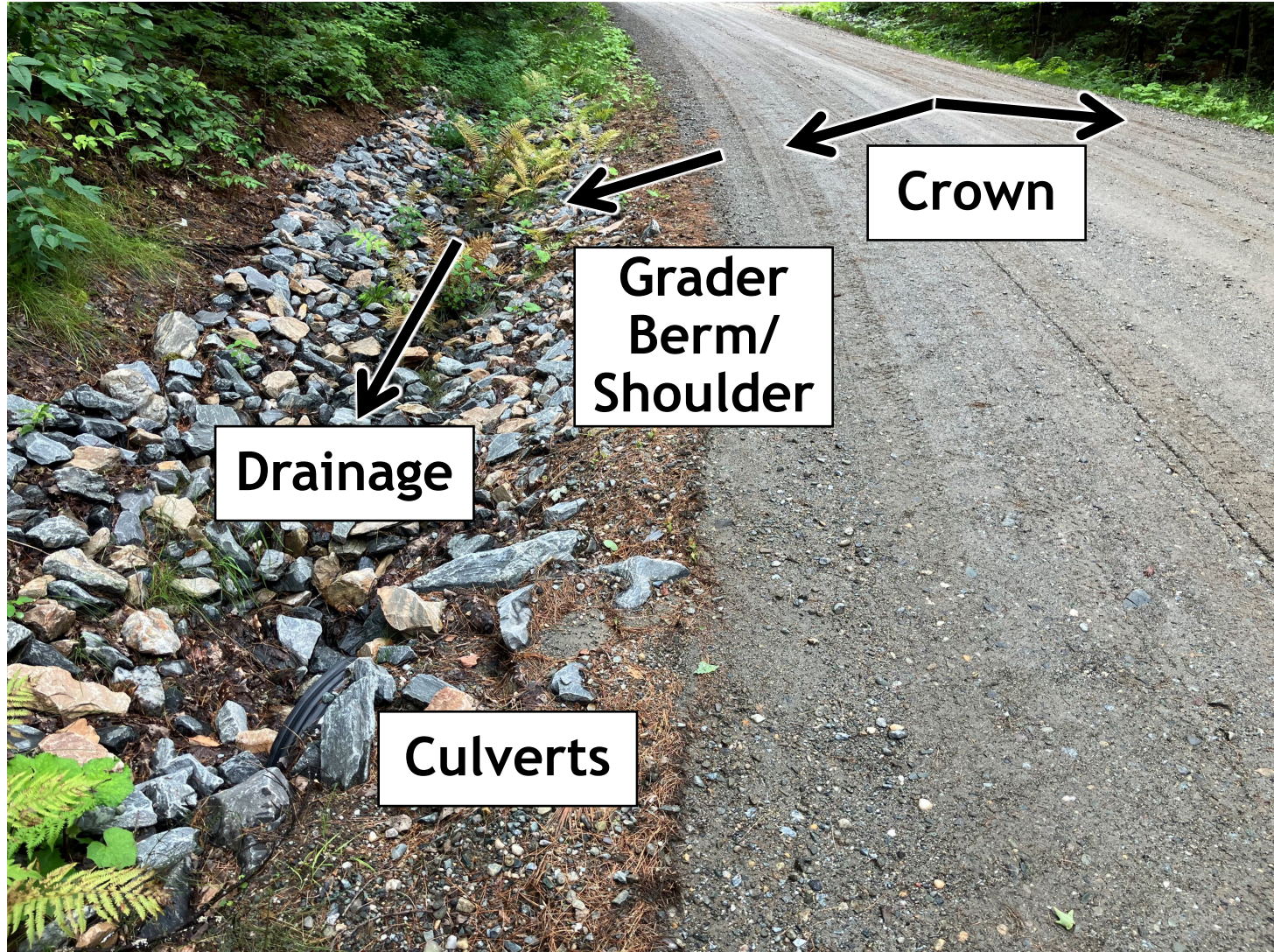
Road
Drainage

Turnouts

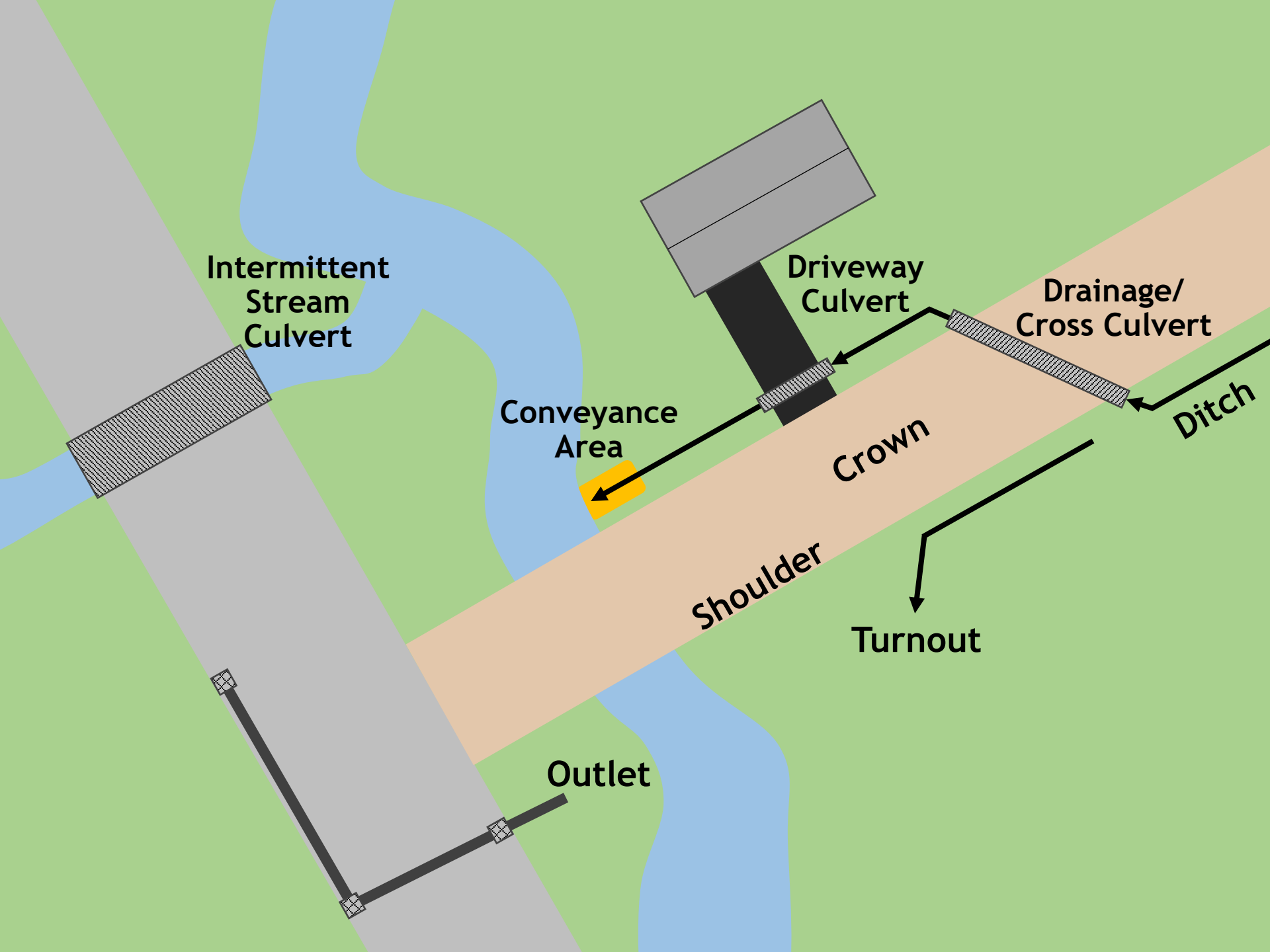
Culverts

Outlets

MRGP Standards







What type of culvert is it?

Drainage/ Cross

No defined
channel below
structure

15" minimum for
driveways (18"
recommended)

-
18" minimum for
road drainages

Intermittent

Defined channel
bed but dries up
most years

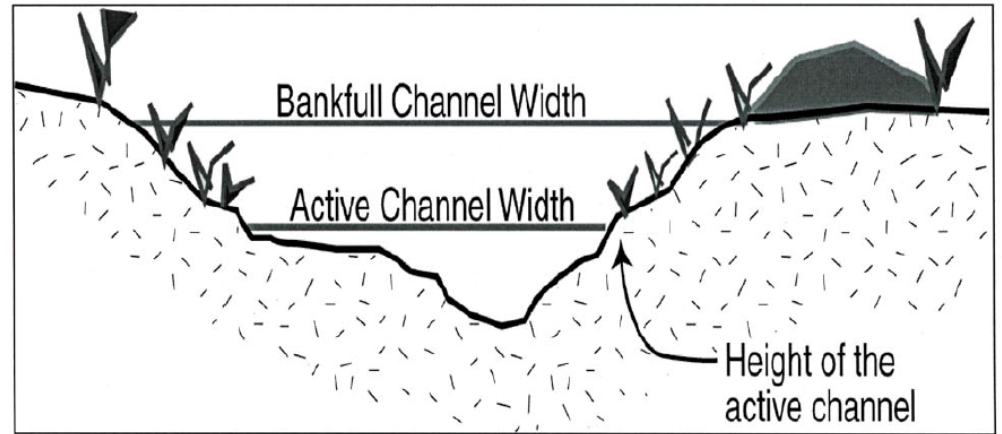
Required Active
Channel width
(NEW)

Perennial

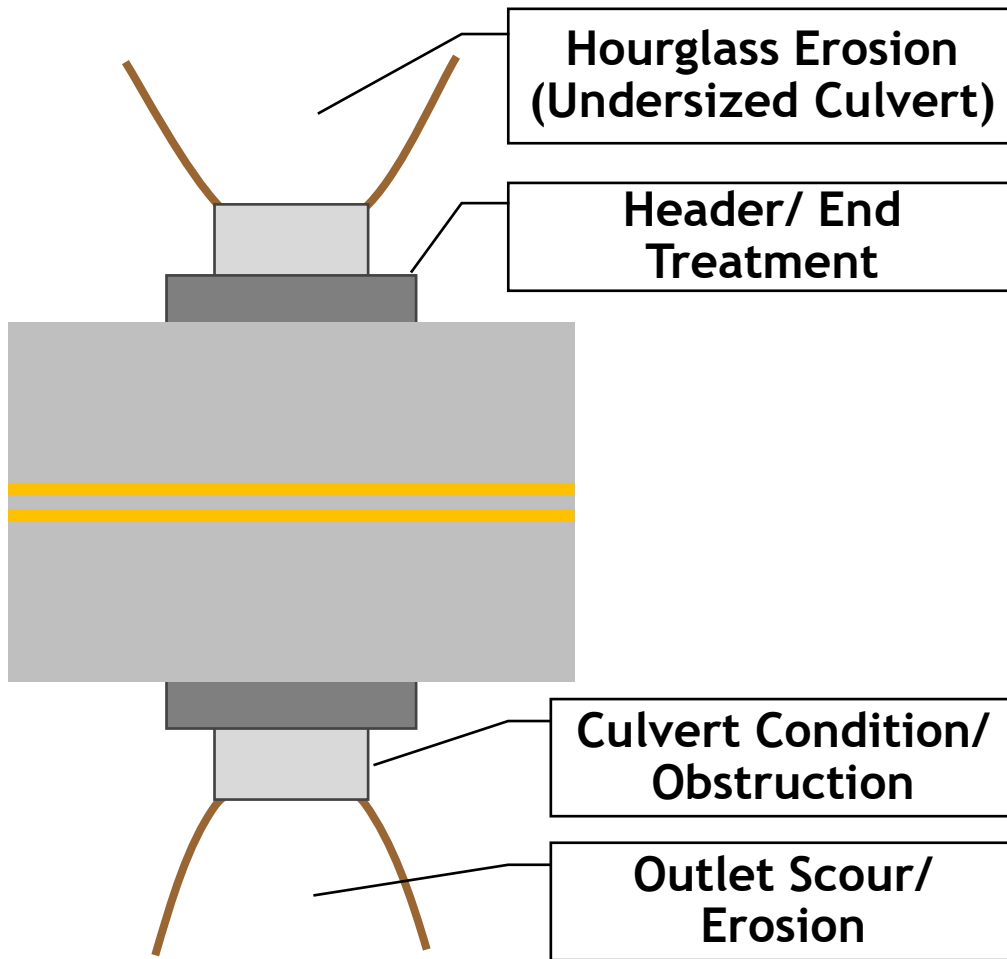
Defined channel
and runs year-
round (most
years)

Bankfull Width
generally required
with Stream
Alteration Permit

Intermittent Stream Sizing



Culvert Erosion



Culvert Cross Section





Very High Priority Road Segments

- Open Drainage Roads (Paved & Gravel):
 - Does Not Meet MRGP
 - Assessment Score > 10
 - Emphasis on gully erosion & high slope
- Closed Drainage Roads (Outlets):
 - Does Not Meet MRGP
 - Erosion 3 cubic yards or more
- Class 4 Roads:
 - Does Not Meet MRGP (gully erosion)
 - Slopes >10%



Photo: Town of Stowe 2023

MRGP Principles

- **Read the Road** to prioritize work
 - Increased resilience
- **Disconnect and infiltrate** road stormwater
 - Reduce flashiness
 - Dissipate energy
- **Stabilize** conveyances
 - Reduce erosion and sedimentation



Photo: Town of Warren 2023

MRGP Practice Benefits

- Improve road drainage practices
- Improve mud season conditions
- Reduced road crew labor and costs associated with maintenance and repairs
- Water quality and aquatic habitat improvement



Funding Sources (VTrans)



Municipal Grants-in-Aid



Better Roads

A: Inventory & Planning

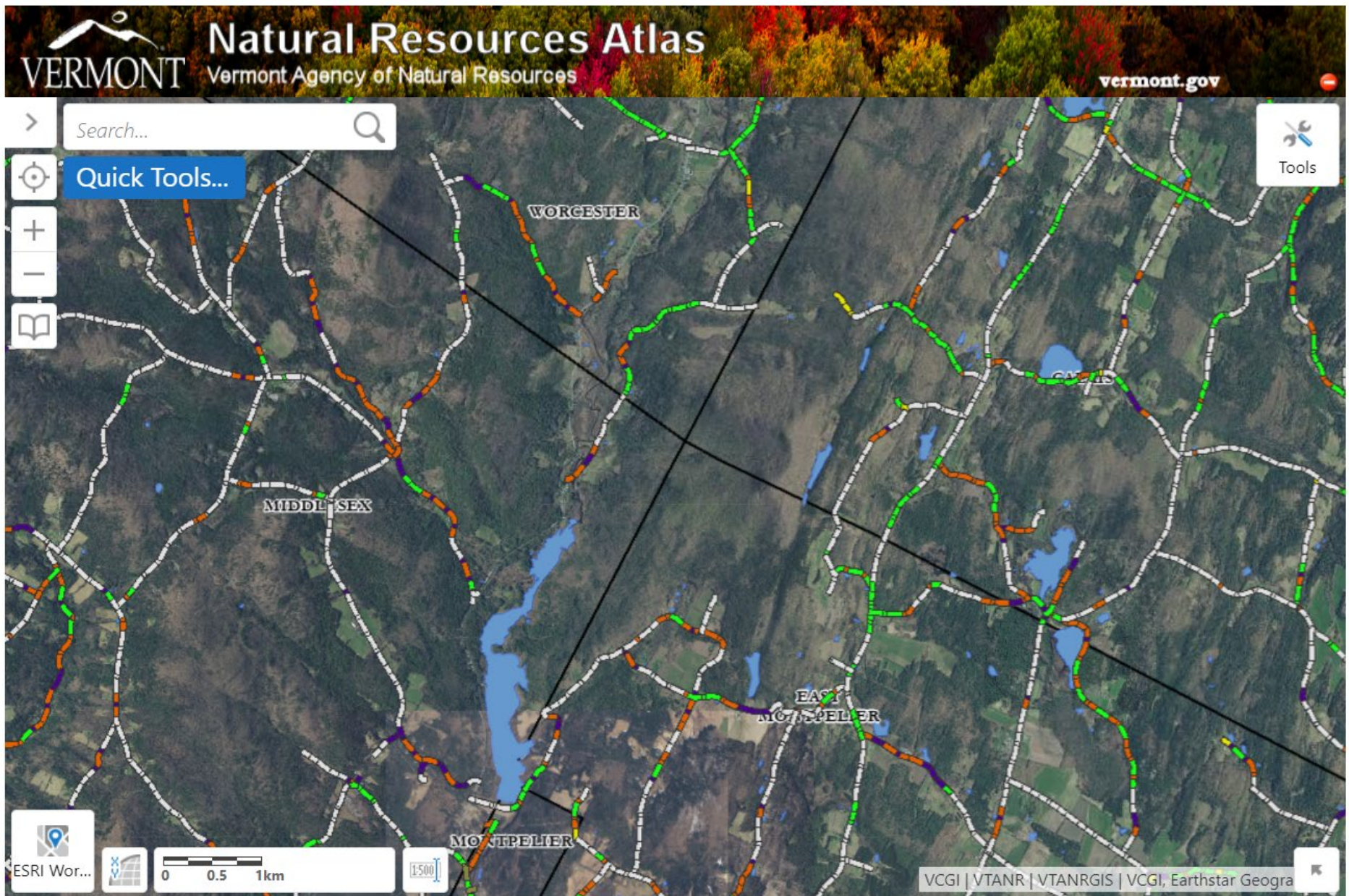
B: Paved & Gravel Road Erosion Mitigation

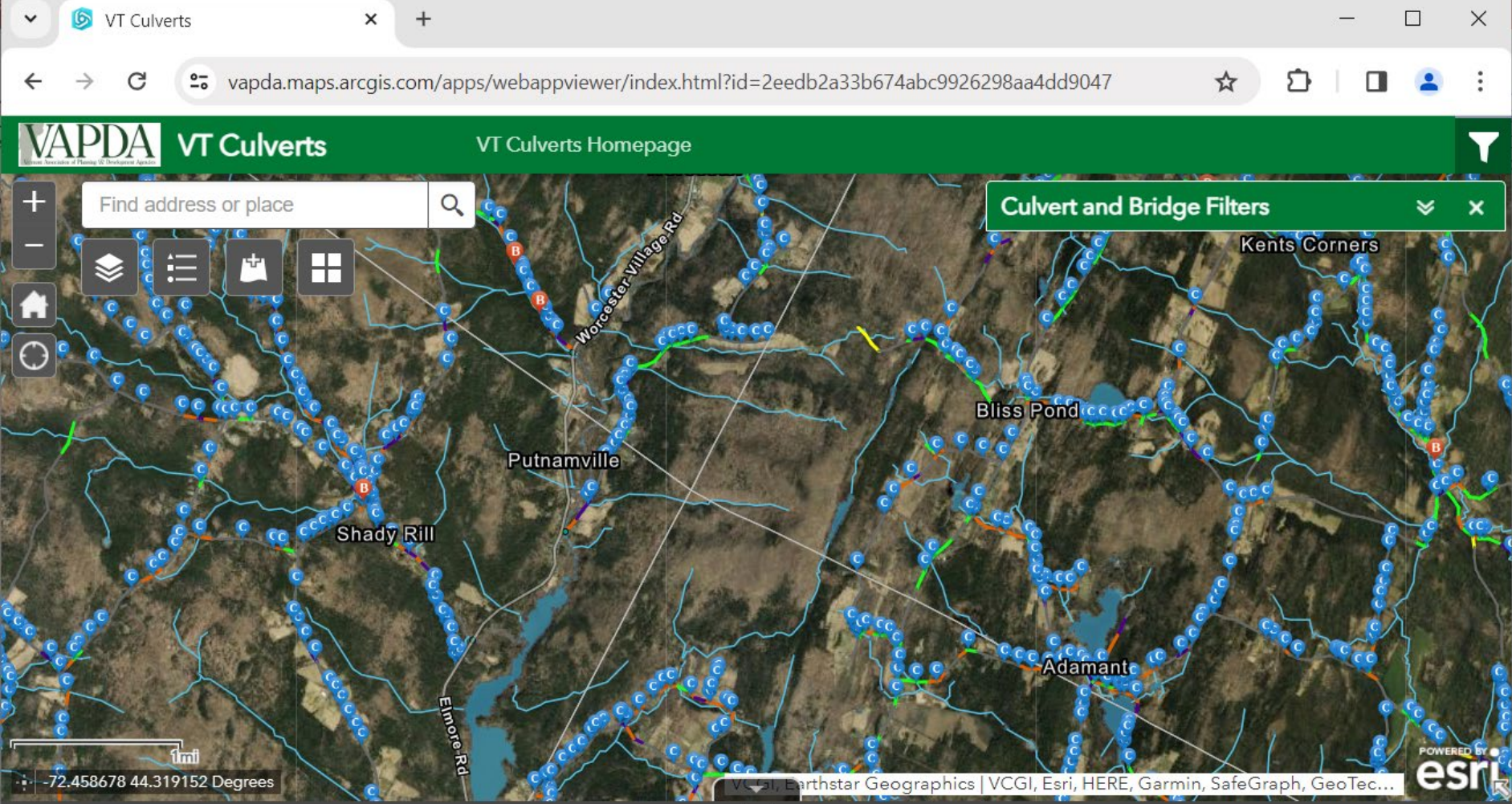
C: Stream Bank, Lakeshore, or Slope Stabilization

D: Culvert or Structure >36"



Town Highway Bridge & Structures Programs





Bridges **Culverts**

Options Filter by map extent Zoom to Clear selection Refresh

Road name	Local id	Location description	Driveway or Drainage	Culvert material	Overall condition	Header material	Header condition	Height (in.)	Width (in.)	
KEYSER HILL RD	(local ID not imported)		Not Yet Determined	Steel Corrugated	Excellent	Unknown	Unknown	18	18	36
WHITTIER HILL RD	230200497T		Not Yet Determined	Plastic Corrugated	Good	Unknown	Unknown	15	15	43

111535 features 0 selected

For Additional information:

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

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