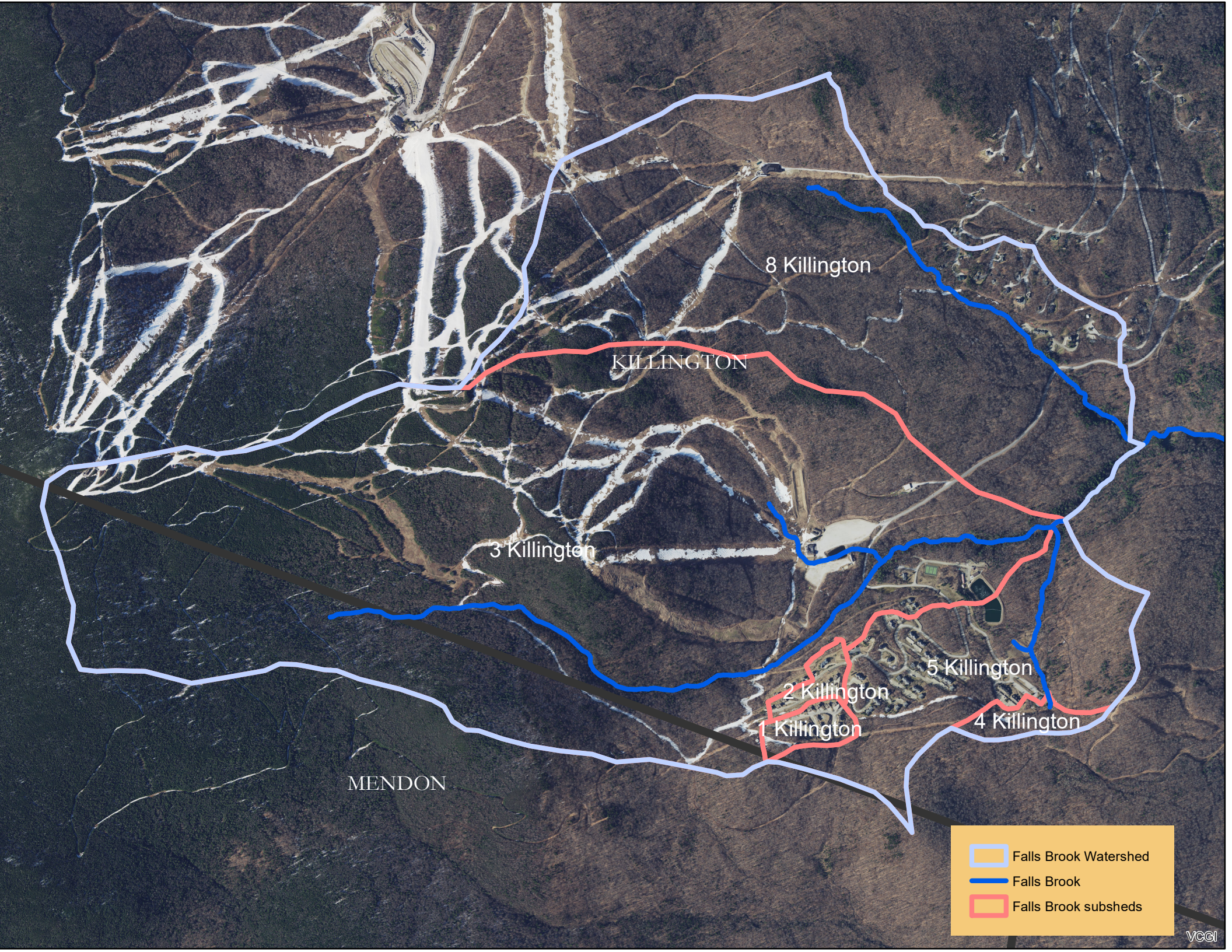


Falls Brooks, Killington Vermont

Falls Brook in Killington and Mendon Vermont has been found to be stressed by stormwater runoff as measured by the chemistry and biology of the stream. There are 19 smaller stormwater discharges to Falls Brook from the developed lands of Bear Mt at Killington Ski Area. Many of these are permitted by the state and some are older treatment systems. The discharges are combined into 6 subdrainages. The recommended course of action for stormwater impacted streams is to install treatment structures that that infiltrate runoff back into the ground where soils are suitable to help control both the water quality volume and the channel protection volume from these discharges. A map showing the location of possible retrofit locations is provided. A cost estimate (excluding land costs) is provided.

Addressing the large discharges of stormwater to the brook will reduce contamination and stream channel erosion and will help prevent the stream from becoming declared stormwater impaired on the state of Vermont's 303d list of impaired waters. It will also reduce nitrogen currently being discharged to the Ottaquechee River and Long Island Sound.



8 Killington

KILLINGTON

3 Killington

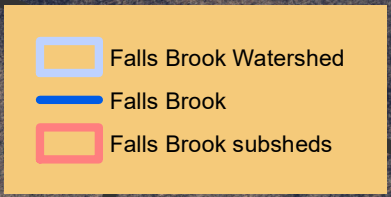
2 Killington

1 Killington

5 Killington

4 Killington

MENDON



Macroinvertebrate Site Summary

Location: Falls Brook	Location ID: 501355
Town: Killington	Bio Site ID: 125800000008
Description: Located immediatly above confluence with Carpenter Brook 20m.	WBID: VT10-06
Stream Type: Small High Gradient	

Date	Density	Richness	EPT Richness	PMA-O	B.I.	Oligo.	EPT/EPT + Chiro	PPCS-F	Community Assessment
8/31/1989	718	32.5	21.5	79.0	3.04	0.32	0.92	0.51	Vgood
9/28/2016	263	30.5	21.0	74.4	1.94	4.71	0.99	0.63	G-Fair
9/30/2018	216	28.0	21.5	79.2	1.68	4.86	0.99	0.66	Fair
Full Support	≥ 300	≥ 27	≥ 16	≥ 45	≤ 4.5	≤ 12	≥ 0.45	≥ 0.4	
Indeterminate	≥ 250	≥ 26	≥ 15	≥ 40	≤ 4.65	≤ 14.5	≥ 0.43	≥ 0.35	
Non-Support	< 250	< 26	< 15	< 40	> 4.65	> 14.5	< 0.43	< 0.35	

*Scoring Guidelines for Stream Type SHG and WQ Class B(2).

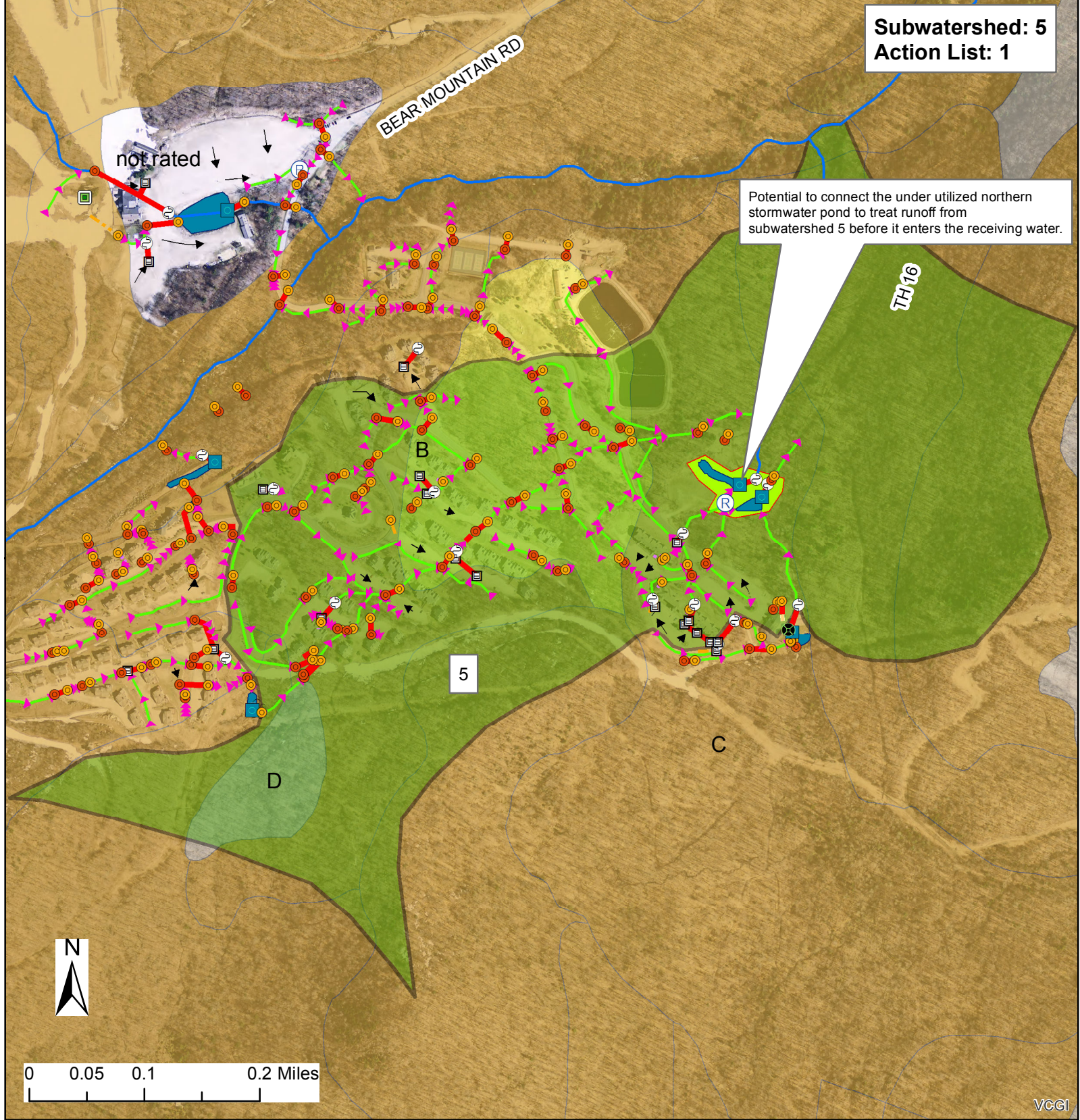
Watershed Number	Action List #	Proposed Action	Proposed or Existing Stormwater Treatment Practice	Permit Number	Watershed Area (Acres)	Percent Mapped Impervious Area (MIA)	Sediment Load with Current Reductions (lbs.)	Sediment Load with Priority Action (lbs.)	Nitrogen Load with Current Reductions (lbs.)	Nitrogen Load with Priority Action (lbs.)	Water Quality Volume (ft ³)	Channel Protection Volume (ft ³)	Estimated Basin Construction Cost	Estimated Other BMP Construction Cost	Cost of Sediment Removal Per Pound (based on annual nitrogen load)	Cost of Nitrogen Removal Per Pound (based on annual nitrogen load)	Assistance Program	# LID-Roof Raingardens to Treat Water Quality Volume
1			GS/OF/EDP	3096-9010	13.7	29.4	1398	1398	15.5	15.5	5742.0	19368.6					CWIP,SRF, LISF	66
2			GS/OF/EDP	3096-9010	10.6	30.2	1116	1116	12.4	12.4	4582.6	15362.7					CWIP,SRF, LISF	53
3	1	Install reverse slope pipe on outlet structure of parking lot pond to reduce thermal impacts. Install bio-retention or gravel wetland on SE side of north parking lot.	BRA/MOD/CB/GS/WP		1035.0	2.3	41542	41542	461.6	461.6	170636.0	112436.3	\$40,000	\$5,000	\$10	\$545	CWIP,SRF, LISF	1959
4			CB/GS/WP	3096-9010	14.2	3.4	578	578	6.4	6.4	2373.5	2313.6					CWIP,SRF, LISF	27
5	1	Connect under utilized north stormwater pond to swale	CB/GS/WP/WP	3096-9010/4033-9015	164.0	9.4	10084	7059	94.5	80.4	31067.0	73995.7		\$2,500	\$1	\$176	CWIP,SRF, LISF	357
8			OF		535.6	1.8	37095	37095	309.1	309.1	91423.5	47290.3					CWIP,SRF, LISF	1049

Target Maps

*Showing Priority Action List
Drainage Areas*

And Potential Retrofit Locations

Subwatershed: 5
Action List: 1

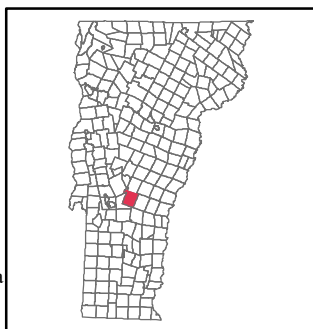


Killington, VT

DEC Stormwater Infrastructure Mapping Project

This map shows high priority subwatersheds which are ranked by connectedness, percent of impervious cover, field observations, and potential retrofit measures and locations.

The data shown on this map is only as accurate as the available sources and field observations allowed and should be used as a basic planning level tool only.



Stormwater points

- Pipe Cross (not connected)
- Catchbasin
- Dry Well
- Drop Inlet
- Grate/Curb Inlet
- Yard drain
- CB tied to sanitary sewer
- Junction Box
- Stormwater Manhole
- Outfall
- Culvert inlet
- Culvert outlet
- Pond outlet structure
- Treatment feature (see notes)
- Retrofit
- Unknown Point
- Information Point

Stormwater line

- Storm line
- Storm line (old Sanitary line)
- Tunnel (storm)
- Combined sewer
- Sanitary line
- Swale
- Footing drain
- Under drain
- Roof drain
- Infiltration pipe
- French drain
- Trench drain
- Emergency spillway
- Stream
- Overland flow

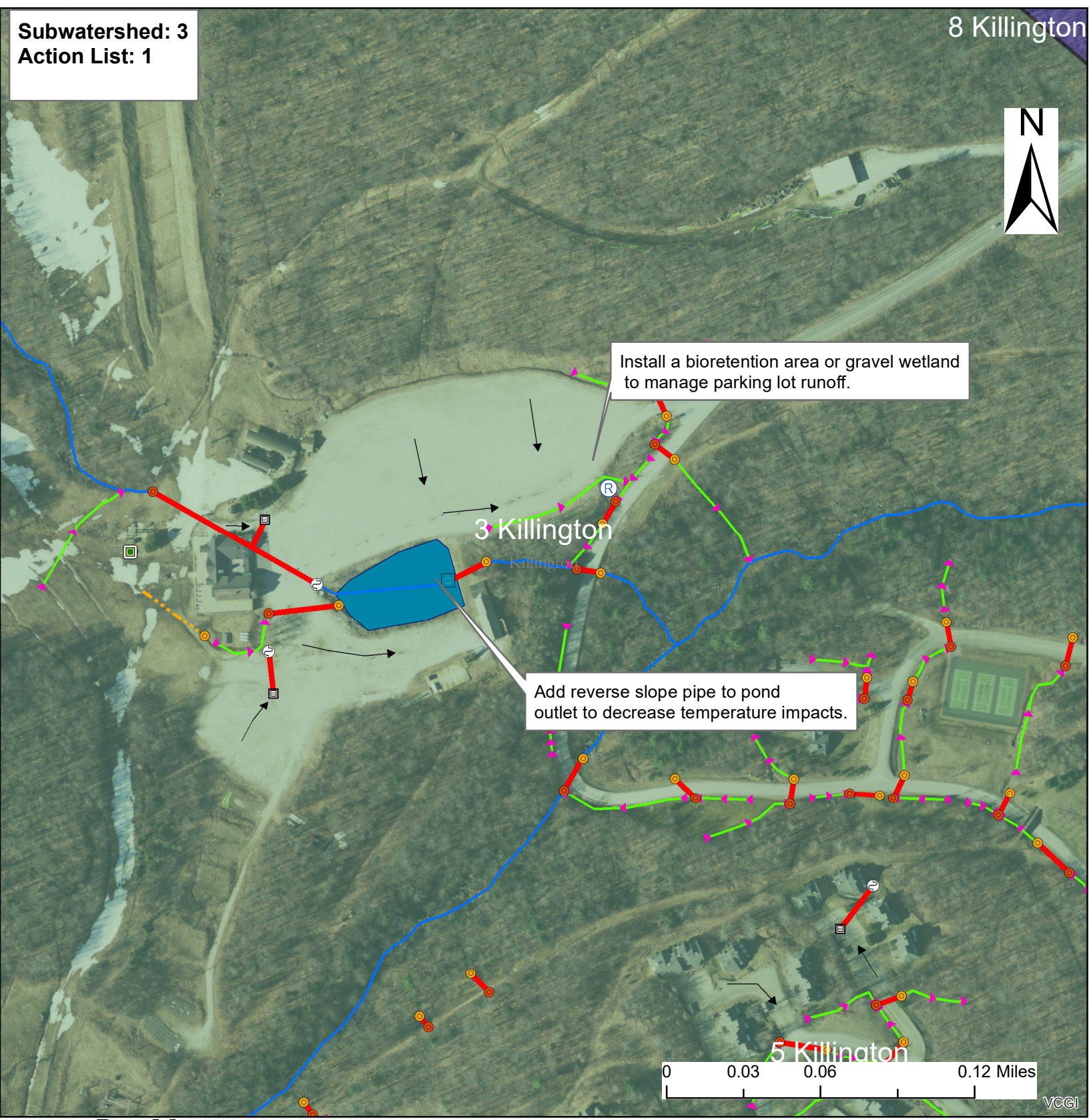
NRCS - Soils

- A
- B
- C
- D

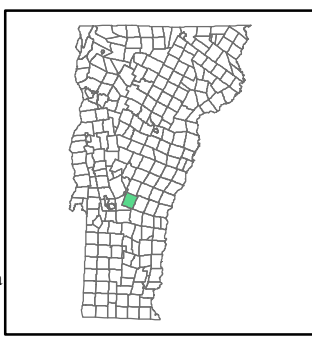
SubwatershedID

- Priority Subwatershed
- Stormwater Treatment Area
- Potential Stormwater Treatment Area

Creator: Jim Pease, David Ainley
 DEC - WSMD - Ecosystem Restoration Program
 Plotted Date: 3/9/2016
 Data Sources: VTRANS Roads data, VT Hydrography data set, DEC Stormwater database, NRCS soils survey
 Imagery Source: VCGI 2012, .5m



Bear Mt.
Killington, VT



DEC Stormwater Infrastructure Mapping Project
This map shows high priority subwatersheds which are ranked by connectedness, percent of impervious cover, field observations, and potential retrofit measures and locations.

The data shown on this map is only as accurate as the available sources and field observations allowed and should be used as a basic planning level tool only.

- Stormwater points**
- Pipe Cross (not connected)
 - Catchbasin
 - Dry Well
 - Drop Inlet
 - Grate/Curb Inlet
 - Yard drain
 - CB tied to sanitary sewer
 - Junction Box
 - Stormwater Manhole
 - Outfall
 - Culvert inlet
 - Culvert outlet
 - Control Structure
 - Treatment feature (see notes)
 - Retrofit
 - Unknown Point
 - Information Point

- Stormwater line**
- Storm line
 - Storm line (old Sanitary line)
 - Tunnel (storm)
 - Combined sewer
 - Sanitary line
 - Swale
 - Footing drain
 - Under drain
 - Roof drain
 - Infiltration pipe
 - French drain
 - Trench drain
 - Emergency spillway
 - Stream
 - Overland flow

- SubwatershedID**
- Priority Subwatershed
 - Stormwater Treatment Area
 - Potential Stormwater Treatment Area

NRCS Soils

Creator: Jim Pease, David Ainley
DEC - WID - Clean Water Initiative Program
Plotted Date: 10/15/2021
Data Sources: VTRANS Roads data, VT Hydrography data set, DEC Stormwater database, NRCS soils survey
Imagery Source: VCGI Best Available Imagery