

Towns of Milton and Colchester

Stormwater Infrastructure Mapping Project

Allen Brook Watershed

August 2022



***VTDEC – CLEAN WATER INITIATIVE PROGRAM,
WATERSHED MANAGEMENT DIVISION***


<https://dec.vermont.gov/water-investment/cwi/solutions/developed-lands/idde>

Jim Pease, Jim.Pease@vermont.gov
David Ainley, David.Ainley@vermont.gov


Lamoille River and Malletts Bay Nonpoint Phosphorus Overview

LAND USE TYPES


DEVELOPED
All roads, cities, suburbs, lawns and large-lot buildings.



AGRICULTURE
Crop and livestock production.



FORESTED
Areas covered primarily with trees.



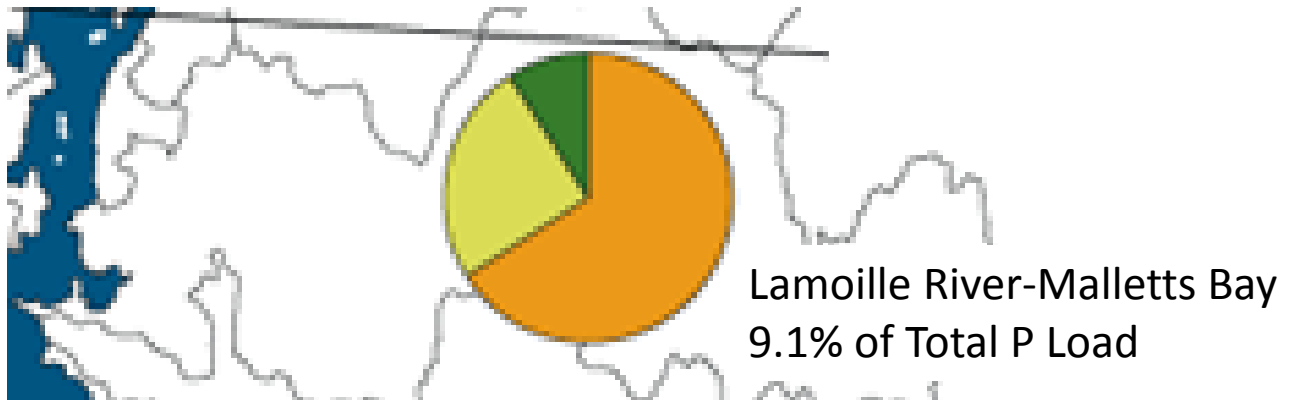


Figure shows the breakdown of contributions from developed, agricultural and forested land sources in the Lamoille River Watershed to Total Phosphorus loading of the Malletts Bay lake segment.

STATUS	TREND		
●	☹	Phosphorus in Lake (p. 5)	PHOSPHORUS
●	☹	Nonpoint source loading to Lake (p. 7-8)	
●	☹	Wastewater facility loading to Lake (p. 10)	

●	⊘	Beach closures from bacteria (p. 12-13)	HUMAN HEALTH & TOXINS
●	⊘	Cyanobacteria blooms (p. 14)	
●	⊘	Fish advisories for toxins* (p. 14)	

STATUS	TREND
● GOOD	☹ IMPROVING
● FAIR	☹ NO TREND (neither improving nor deteriorating)
● POOR	☹ DETERIORATING
⊘ NO STATUS DATA IS AVAILABLE	⊘ NO TREND DATA IS AVAILABLE

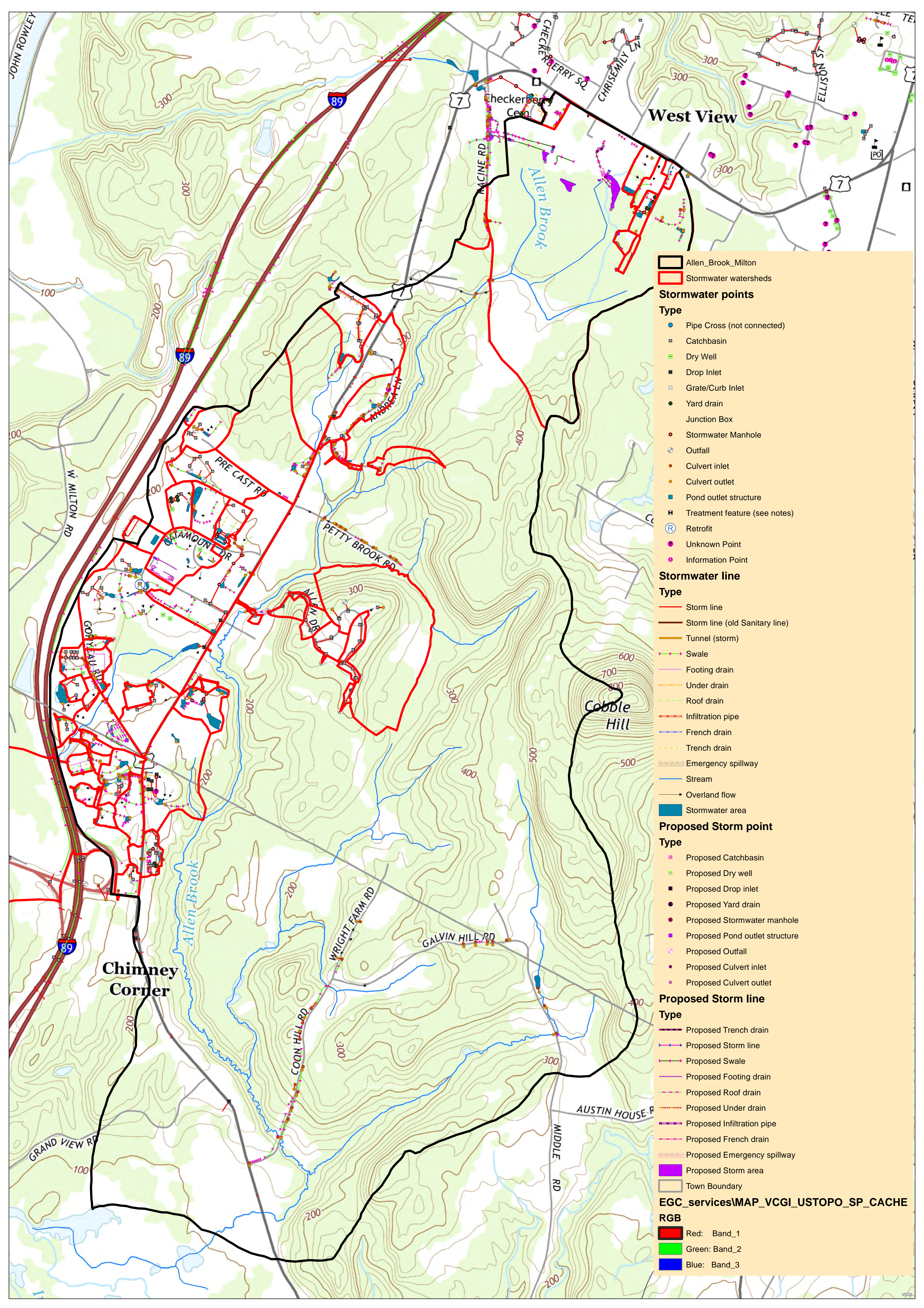
*Figures taken from Lake Champlain Basin Program – *State of the Lake and Ecosystem Indicators Report (2012)*.

<http://www.lcbp.org/wp-content/uploads/2013/05/SOL2012-web.pdf>

Allen Brook, Milton-Colchester, Vermont

Allen Brook in Milton and Colchester, Vermont has been found to be impaired by stormwater water quality as measured by the biological community and the chemistry of the stream. There are at least 58 significant discharges to the stream from the developed lands of Milton and Colchester. The recommended course of action is to install a stormwater treatment structure that controls both the water quality volume and the channel protection volume from these discharges near the outfall. A map showing the location of the discharges and a possible retrofit location on private land is provided. A diagram of possible treatment structures and a cost estimate (excluding land costs) is provided. Milton has completed a Stormwater Master Plan in 2019 which includes stormwater retrofit recommendations for Allen Brook. Parcels listed as an Action List #4 must comply with General Permit 3-9050 which requires treatment of 50% of the water quality volume.

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 phosphorus currently being discharged to Malletts Bay and Lake Champlain.



Allen_Brook_Milton
 [Black outline symbol]

Stormwater watersheds
 [Red outline symbol]

Stormwater points
Type

- [Blue circle symbol] Pipe Cross (not connected)
- [Black square symbol] Catchbasin
- [Green square symbol] Dry Well
- [Black square symbol] Drop Inlet
- [Black square symbol] Grate/Curb Inlet
- [Black circle symbol] Yard drain
- [Black circle symbol] Junction Box
- [Black circle symbol] Stormwater Manhole
- [Black circle symbol] Outfall
- [Black circle symbol] Culvert inlet
- [Black circle symbol] Culvert outlet
- [Blue square symbol] Pond outlet structure
- [Black square symbol] Treatment feature (see notes)
- [Black circle symbol] Retrofit
- [Pink circle symbol] Unknown Point
- [Pink circle symbol] Information Point

Stormwater line
Type

- [Red line symbol] Storm line
- [Brown line symbol] Storm line (old Sanitary line)
- [Yellow line symbol] Tunnel (storm)
- [Green line symbol] Swale
- [Purple line symbol] Footing drain
- [Orange line symbol] Under drain
- [Green line symbol] Roof drain
- [Red line symbol] Infiltration pipe
- [Blue line symbol] French drain
- [Yellow line symbol] Trench drain
- [Wavy line symbol] Emergency spillway
- [Blue line symbol] Stream
- [Arrow symbol] Overland flow
- [Blue area symbol] Stormwater area

Proposed Storm point
Type

- [Pink square symbol] Proposed Catchbasin
- [Green square symbol] Proposed Dry well
- [Black square symbol] Proposed Drop inlet
- [Black circle symbol] Proposed Yard drain
- [Black circle symbol] Proposed Stormwater manhole
- [Blue square symbol] Proposed Pond outlet structure
- [Black circle symbol] Proposed Outfall
- [Black circle symbol] Proposed Culvert inlet
- [Black circle symbol] Proposed Culvert outlet

Proposed Storm line
Type

- [Red line symbol] Proposed Trench drain
- [Blue line symbol] Proposed Storm line
- [Green line symbol] Proposed Swale
- [Purple line symbol] Proposed Footing drain
- [Orange line symbol] Proposed Roof drain
- [Yellow line symbol] Proposed Under drain
- [Red line symbol] Proposed Infiltration pipe
- [Blue line symbol] Proposed French drain
- [Wavy line symbol] Proposed Emergency spillway
- [Pink area symbol] Proposed Storm area
- [Black outline symbol] Town Boundary

EGC_services\MAP_VCGI_USTOPO_SP_CACHE
RGB

- [Red square symbol] Red: Band_1
- [Green square symbol] Green: Band_2
- [Blue square symbol] Blue: Band_3

Macroinvertebrate Site Summary

Location: Allen Brook	Location ID: 501908
Town: Colchester	Bio Site ID: 470100000009
Description: Located immediately above the Route 7 culvert.	WBID: VT05-09
Stream Type: Slow Low Gradient	

Date	Density	EOT Richness	BCG Intolerant Richness	PMA-O	B.I.	Amphipod + Isopod - Hyallela	EOT/EOT +C	PPCS-F	Sensitive COTE%	EOT Density	IBI Score	Community Assessment
10/20/2003	912	10.0	4.0	50.9	6.54	44.1	0.439	0.378	2.632	129.0	26	Fair
10/11/2016	984	7.0	6.0	67.9	6.71	20.4	0.069	0.511	11.890	39.0	28	Fair
IBI 5	≥ 500	≥ 15	≥ 10	≥ 65	≤ 5.5	0	≥ 0.5	≥ 0.5	≥ 20	≥ 500		
IBI 4	≥ 400	≥ 11	≥ 7	≥ 57	≤ 6	≤ 1	≥ 0.36	≥ 0.42	≥ 14	≥ 350		
IBI 3	≥ 300	≥ 8	≥ 5	≥ 50	≤ 6.5	≤ 5	≥ 0.23	≥ 0.34	≥ 9	≥ 200		
IBI 2	≥ 200	≥ 5	≥ 2	≥ 40	≤ 7	≤ 25	≥ 0.11	≥ 0.29	≥ 3	≥ 100		
IBI 1	≥ 0	≥ 0	≥ 0	≥ 0	>7	>25	≥ 0	≥ 0	≥ 0	≥ 0		

Macroinvertebrate Site Summary

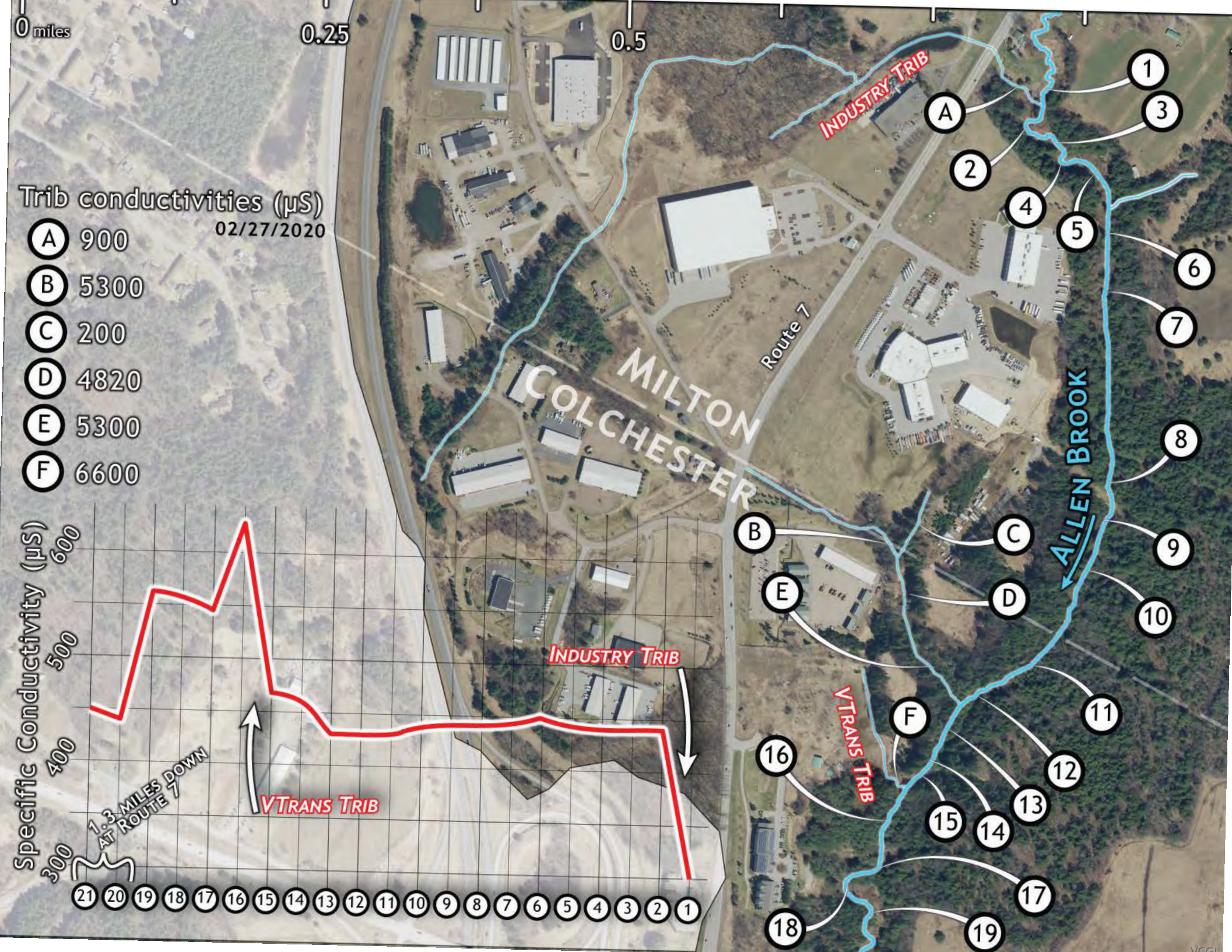
Location: Allen Brook	Location ID: 501909
Town: Colchester	Bio Site ID: 470100000013
Description: Located approximately 0.5mi up first road south of chimney corners. The site is located on the upstream side of the road.	WBID: VT05-09
Stream Type: Slow Low Gradient	

Date	Density	EOT Richness	BCG Intolerant Richness	PMA-O	B.I.	Amphipod + Isopod - Hyallela	EOT/EOT +C	PPCS-F	Sensitive COTE%	EOT Density	IBI Score	Community Assessment
8/17/1987	592	19.0	11.0	48.8	4.88	0.0	0.192	0.223	9.785	72.0	28	
8/15/1991	3778	6.5	6.5	40.1	5.97	0.0	0.022	0.278	0.552	66.0	25	
9/5/1992	980	11.0	6.5	46.7	6.65	0.0	0.215	0.440	1.237	52.0	28	Good
10/20/1998	918	8.0	10.0	76.2	4.07	7.2	0.405	0.394	27.777	288.0	40	Vgood
8/29/2016	1035	6.0	2.0	53.8	5.98	30.8	0.008	0.429	0.000	3.4	24	Fair
IBI 5	≥ 500	≥ 15	≥ 10	≥ 65	≤ 5.5	0	≥ 0.5	≥ 0.5	≥ 20	≥ 500		
IBI 4	≥ 400	≥ 11	≥ 7	≥ 57	≤ 6	≤ 1	≥ 0.36	≥ 0.42	≥ 14	≥ 350		
IBI 3	≥ 300	≥ 8	≥ 5	≥ 50	≤ 6.5	≤ 5	≥ 0.23	≥ 0.34	≥ 9	≥ 200		
IBI 2	≥ 200	≥ 5	≥ 2	≥ 40	≤ 7	≤ 25	≥ 0.11	≥ 0.29	≥ 3	≥ 100		
IBI 1	≥ 0	≥ 0	≥ 0	≥ 0	>7	>25	≥ 0	≥ 0	≥ 0	≥ 0		

Macroinvertebrate Site Summary

Location: Allen Brook	Location ID: 501910
Town: Colchester	Bio Site ID: 470100000022
Description: Upstream from old site, behind condo building.	WBID: VT05-09
Stream Type: Hybrid Low Gradient	

Date	Density	EOT Richness	BCG Intolerant Richness	PMA-O	B.I.	Amphipod + Isopod - Hyallela	EOT/EOT +C	PPCS-F	Sensitive COTE%	Shredders / Collector	IBI Score	Community Assessment
10/13/2009	1820	16.0	14.0	76.2	4.00	0.0	0.495	0.492	19.560	0.187	43	Vgood
9/22/2011	5040	16.0	13.0	74.0	3.86	0.0	0.660	0.549	33.968	0.083	43	Vgood
10/12/2016	330	8.0	7.0	62.8	6.33	11.6	0.288	0.632	7.273	0.607	28	Fair
IBI 5	≥ 500	≥ 15	≥ 14	≥ 75	≤ 4	0	≥ 0.5	≥ 0.57	≥ 28	≥ 0.5		
IBI 4	≥ 400	≥ 13	≥ 11	≥ 65	≤ 5	≤ 1	≥ 0.38	≥ 0.49	≥ 20	≥ 0.35		
IBI 3	≥ 300	≥ 11	≥ 9	≥ 55	≤ 6	≤ 5	≥ 0.26	≥ 0.41	≥ 13	≥ 0.2		
IBI 2	≥ 200	≥ 7	≥ 5	≥ 45	≤ 6.5	≤ 25	≥ 0.13	≥ 0.36	≥ 5	≥ 0.1		
IBI 1	≥ 0	≥ 0	≥ 0	≥ 0	>6.5	>25	≥ 0	≥ 0	≥ 0	≥ 0		



Subwatershed Data

***Tables showing calculations and
Priority drainage area retrofit possibilities***

This is a key showing the abbreviations of the different stormwater treatment structures or practices listed in the calculation sheets.

Abbreviation Key	
Code	Structure Type
BB	Baffle Box
BFCB	Baffled Catchbasin
BR	Bioretention Area (aka Bioretention Filter)
BS	Buffer Strip (25' Min.)
CB	Catch Basin
CBI	Catch Basin Insert
CD	Check Dam
DG	Detention Gallery
DI	Drop Inlet
DP	Dry Pond
DS	Dry Swale
DW	Drywell
EDPMP	Ext.Det.Pond with Micropool (aka Micropool ED Pond)
GS	Grass Swale (aka Open Channel)
IB	Infiltration Basin
IG	Infiltration Gallery
IP	Infiltration Pipe
OF	Overland Flow
OGF	Organic Filter
POP	Pocket Pond
PP	Perforated Pipe Attenuator
RDD	Roof Drain Disconnect
RR	Rock RipRap
RS	RipRap Swale
SB	Sediment Basin (10 YR OR >)
SF	Sand Filter (aka Surface Sand Filter)
SS-SF	Swirl Separator – Sand Filter
ST	Septic Tank
TT	Treatment Tank
WL	Wetland (Constructed)
WP	Wet Pond (Retention)
WS	Wet Swale

Colchester - Subwatershed Prioritization and Recommendations										
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.)	Phosphorus Load with Current Reductions (lbs.)	Phosphorus Load with Priority Action (lbs.)
1 Colchester			CB/GS/EDPMP	4439-9010	6.94	34.5	722	722	2.8	2.8
2 Colchester			CB/GS/EDPMP	3954-9010	9.76	20.3	563	563	2.2	2.2
3 Colchester			CB/GS/EDPMP/BRA	4955-9010.A2	10.13	30.0	352	352	2.9	2.9
4 Colchester			EDPMP/GS	3954-9010	2.55	58.7	244	244	2.0	2.0
5 Colchester			CB/GS/PP	4242-9015	2.54	61.8	265	265	2.2	2.2
6 Colchester			GS	4242-9015	0.56	27.4	17	17	0.1	0.1
7 Colchester			GS	4955-9010.A2	2.21	65.2	286	286	2.4	2.4
8 Colchester			GS/IB	3367-9015.A	2.54	53.4	103	103	0.3	0.3
9 Colchester			IG/GS/CB	4955-9050	2.81	67.1	169	169	0.5	0.5
10 Colchester		1/4 mapped drainage area discharges to Allen Brook/Values adjusted	USF/GS	8938-9015	27.23	8.9	2063	206	5.7	2.3
11 Colchester			GS/CB/SB	4955-9010.A2	2.30	49.4	164	164	1.4	1.4
12 Colchester			CB/OGS		4.09	33.8	1227	1227	3.4	3.4
Milton - Subwatershed Prioritization and Recommendations										
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.)	Phosphorus Load with Current Reductions (lbs.)	Phosphorus Load with Priority Action (lbs.)
1 Milton			CB/WP/IB	5680-9015.A	37.41	29.9	1942	1942	9.9	9.9
2 Milton	4		CB/5IB	5680-9015.A	9.84	52.0	383	383	1.1	1.1
3 Milton	4		CB/IB	3318-9050.1	3.34	91.0	352	352	1.0	1.0
4 Milton	4		CB/IB	3318-9050.1	13.48	29.6	230	230	0.6	0.6
5 Milton	4		CB/OF		2.16	50.7	1071	1071	3.0	3.0
6 Milton	4		CB/IB	7102-9015	5.00	52.8	199	199	0.6	0.6
7 Milton	4		CB/WP		2.98	75.3	442	442	3.7	3.7
8 Milton	1,4	Modify fire detention pond outlet to control CPV	MOD/CB/IB/GS/SWP PP/DW/ WP	3318-9010.1A2, 6886-9003, 4758-9003	77.21	29.1	2589	2071	21.6	8.6
9 Milton	4		CB/IB/GS	3318-9015.8	4.69	73.3	332	332	0.9	0.9
10 Milton	4		CB/IB/GS	3318-9015.8	1.64	36.1	36	36	0.1	0.1
11 Milton	4		CB	3318-9050	2.86	2.5	176	176	0.5	0.5
12 Milton	4		OF		78.07	4.3	6003	6003	16.7	16.7
13 Milton	1,4	Infiltration gallery at Lower Allen Brook Drive	IG/CB/GS	3854-9010	5.43	39.5	1533	307	4.3	0.9

Watershed Number	Water Quality Volume (Acre-Feet)	Channel Protection (Acre-Feet)	Estimated Basin Construction Cost	Estimated Other BMP Construction Cost	Cost of Sediment Removal Per Pound (based on annual sediment load)	Cost of Phosphorus or Nitrogen Removal Per Pound (based on annual nutrient load)	Assistance Program	# LID-Roof Raingardens to Treat Water Quality Volume	Raingarden Cost
1 Colchester	0.08	0.26					CWIP, SRF, LCBP	41	\$18,780
2 Colchester	0.06	0.22					CWIP, SRF, LCBP	32	\$14,657
3 Colchester	0.10	0.33					CWIP, SRF, LCBP	50	\$22,900
4 Colchester	0.07	0.16					CWIP, SRF, LCBP	34	\$15,863
5 Colchester	0.07	0.17					CWIP, SRF, LCBP	37	\$17,221
6 Colchester	0.00	0.02					CWIP, SRF, LCBP	2	\$1,128
7 Colchester	0.08	0.16					CWIP, SRF, LCBP	40	\$18,610
8 Colchester	0.06	0.15					CWIP, SRF, LCBP	29	\$13,398
9 Colchester	0.10	0.21					CWIP, SRF, LCBP	48	\$22,057
10 Colchester	0.12	0.27					CWIP, SRF, LCBP	58	\$26,842
11 Colchester	0.05	0.13					CWIP, SRF, LCBP	23	\$10,700
12 Colchester	0.07	0.15					CWIP, SRF, LCBP	35	\$15,967
Watershed Number	Water Quality Volume (Acre-Feet)	Channel Protection (Acre-Feet)	Estimated Basin Construction Cost	Estimated Other BMP Construction Cost	Cost of Sediment Removal Per Pound (based on annual sediment load)	Cost of Phosphorus or Nitrogen Removal Per Pound (based on annual nutrient load)	Assistance Program	# LID-Roof Raingardens to Treat Water Quality Volume	Raingarden Cost
1 Milton	0.37	1.23					CWIP, SRF, LCBP	183	\$84,240
2 Milton	0.22	0.56					CWIP, SRF, LCBP	108	\$49,815
3 Milton	0.20	0.33					CWIP, SRF, LCBP	99	\$45,769
4 Milton	0.13	0.44					CWIP, SRF, LCBP	65	\$29,933
5 Milton	0.06	0.12					CWIP, SRF, LCBP	30	\$13,941
6 Milton	0.11	0.29					CWIP, SRF, LCBP	56	\$25,892
7 Milton	0.13	0.25					CWIP, SRF, LCBP	63	\$28,790
8 Milton	0.73	2.48	\$427,008		\$825	\$32,992	CWIP, SRF, LCBP	366	\$168,421
9 Milton	0.19	0.38					CWIP, SRF, LCBP	94	\$43,156
10 Milton	0.02	0.07					CWIP, SRF, LCBP	10	\$4,728
11 Milton	0.01	0.01					CWIP, SRF, LCBP	6	\$2,551
12 Milton	0.34	0.37					CWIP, SRF, LCBP	170	\$78,113
13 Milton	0.10	0.24	\$38,814		\$32	\$11,392	CWIP, SRF, LCBP	48	\$22,169

Milton - Subwatershed Prioritization and Recommendations										
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.)	Phosphorus Load with Current Reductions (lbs.)	Phosphorus Load with Priority Action (lbs.)
14 Milton	4		CB/GS	3854-9010	5.84	27.9	1066	1066	3.0	3.0
15 Milton	4		CB/GS	3854-9010	4.13	22.2	591	591	1.6	1.6
16 Milton	4		CB/GS	3854-9010	0.71	48.9	269	269	0.7	0.7
17 Milton	4		CB/GS	3854-9010	0.90	61.0	471	471	1.3	1.3
18 Milton	4		CB/GS	3854-9010	0.31	75.7	227	227	0.6	0.6
19 Milton	1,4	Infiltration basin on lower Allen Road. Combine with 20.	IB/CB/GS	3854-9010	0.69	50.2	273	27	0.8	0.1
20 Milton	1,4	Infiltration basin on lower Allen Road. Combine with 19.	IB/CB/GS	3854-9010	4.69	12.5	428	43	1.2	0.1
21 Milton	4		EDPMP/IG/CB/GS	3318-9050.3	6.55	86.1	622	622	1.7	1.7
22 Milton	4		IB/IB/GS/CB	4489-9015.A/4489-3318-9050.3	44.42	36.1	987	987	2.7	2.7
23 Milton	4		CB/DW/IG/IB	3318-9050.3, 3318-10060.2	17.15	32.4	329	329	0.9	0.9
24 Milton	4		IB	3318-9050	3.02	13.3	26	26	0.1	0.1
25 Milton	4		2IB/GS	3318-9050.3	9.31	29.2	156	156	0.4	0.4
26 Milton	4		IB/DW/CB	3318-9050.3	6.75	52.5	266	266	0.7	0.7
27 Milton	4		IB/CB/OF/SWPPP	7472-INDS, 7472-6820-901	18.52	79.7	1527	1527	4.2	4.2
28 Milton			CB/SWPPP/3IB	9283-0003, 422-0003	47.69	15.2	897	897	7.5	7.5
29 Milton	4		OF/CB	5525-9010	55.00	7.0	4868	4868	13.5	13.5
30 Milton			OF/CB/EDWP	5525-9010	15.22	22.1	380	380	3.2	3.2
31 Milton			GS/PP	3442-9010	0.48	31.5	23	23	0.2	0.2
32 Milton			GS/CB	3442-9010	1.79	28.6	224	224	0.8	0.8
33 Milton	4		CB/GS/SB	3446-9010, 3446-9015	14.25	19.4	1198	1198	4.4	4.4
34 Milton			GS/PP	3442-9010	5.16	9.1	79	79	0.7	0.7
35 Milton			CB/GS/IB	3603-9015.1A	5.83	78.8	471	471	1.3	1.3
36 Milton			OF/GS	5731-9010	4.34	68.0	1197	1197	5.8	5.8
37 Milton			IB/IG/OF/GS/CB	5731-9010	3.68	61.8	192	192	0.5	0.5
38 Milton			OF/GS/IB	5731-9010	1.45	19.4	16	16	0.0	0.0
39 Milton	4		OF/GS/IB	5731-9010	2.25	16.9	23	23	0.1	0.1
40 Milton			OF/IB	5731-9011	1.97	80.3	164	164	0.5	0.5
41 Milton			OF/GS/IB/LS	7970-9050	246.18	3.3	1664	1664	4.6	4.6
42 Milton			GS/OF		7.58	5.6	623	623	1.7	1.7
43 Milton			5IB/GS/CB	8365-9015	4.17	24.9	59	59	0.2	0.2
44 Milton			CB/GS/IB/SWPPP/SB	5195-9003,5185-9015	11.03	54.1	458	458	1.3	1.3
45 Milton			OF/IB	5195-9003,5185-9016	1.16	52.1	45	45	0.1	0.1
46 Milton	4		CB/GS/IB	7172-9015	15.06	10.5	120	120	0.3	0.3

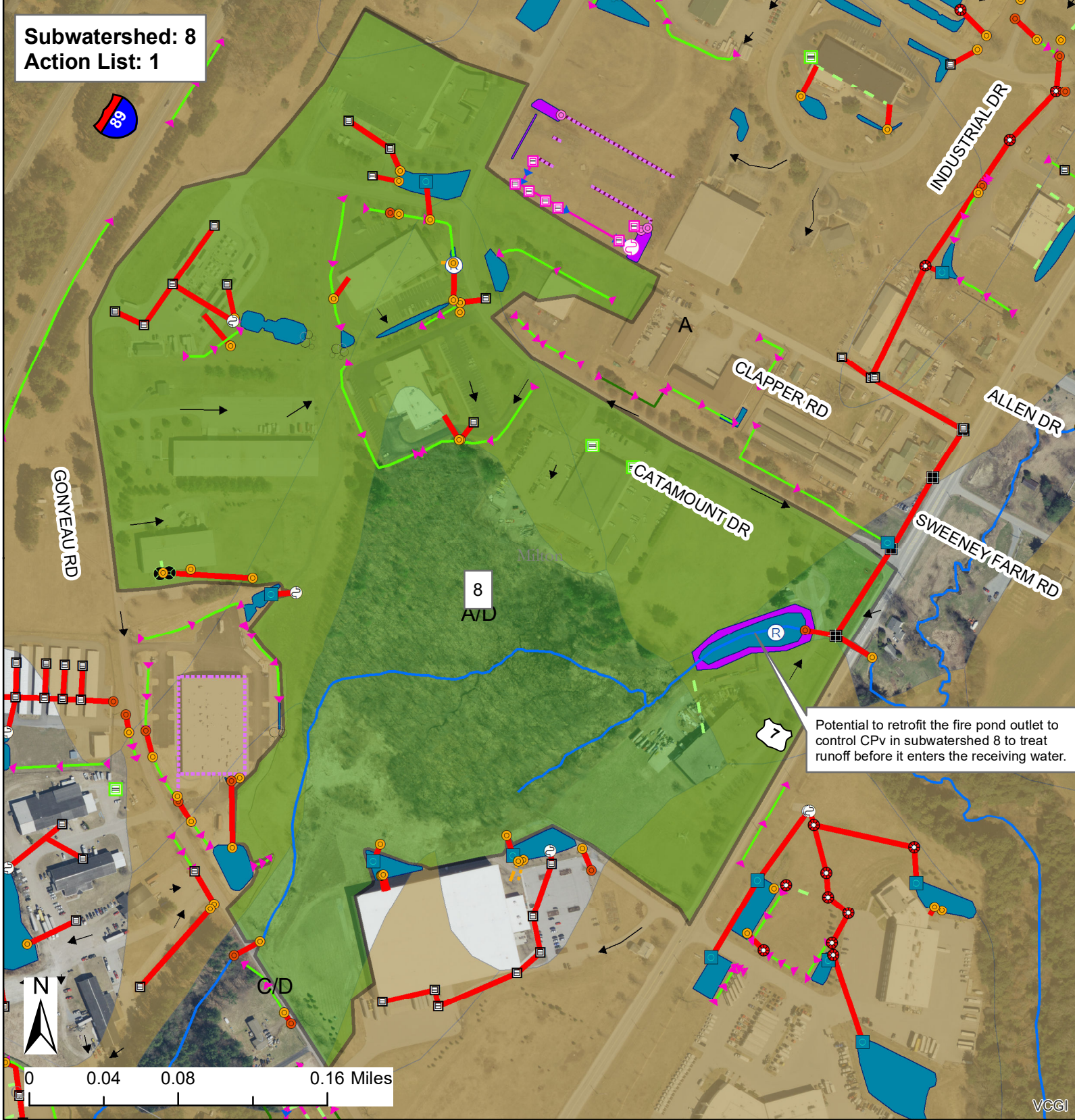
Watershed Number	Water Quality Volume (Acre-Feet)	Channel Protection (Acre-Feet)	Estimated Basin Construction Cost	Estimated Other BMP Construction Cost	Cost of Sediment Removal Per Pound (based on annual sediment load)	Cost of Phosphorus or Nitrogen Removal Per Pound (based on annual nutrient load)	Assistance Program	# LID-Roof Raingardens to Treat Water Quality Volume	Raingarden Cost
14 Milton	0.07	0.18					CWIP, SRF, LCBP	34	\$15,417
15 Milton	0.04	0.10					CWIP, SRF, LCBP	19	\$8,548
16 Milton	0.02	0.04					CWIP, SRF, LCBP	8	\$3,889
17 Milton	0.03	0.06					CWIP, SRF, LCBP	15	\$6,811
18 Milton	0.01	0.03					CWIP, SRF, LCBP	7	\$3,284
19 Milton	0.02	0.04	\$53,600		\$85	\$30,587	CWIP, SRF, LCBP	9	\$3,948
20 Milton	0.03	0.06					CWIP, SRF, LCBP	13	\$6,187
21 Milton	0.35	0.62					CWIP, SRF, LCBP	176	\$80,983
22 Milton	0.56	1.77					CWIP, SRF, LCBP	279	\$128,387
23 Milton	0.19	0.61					CWIP, SRF, LCBP	93	\$42,772
24 Milton	0.01	0.04					CWIP, SRF, LCBP	7	\$3,434
25 Milton	0.09	0.30					CWIP, SRF, LCBP	44	\$20,324
26 Milton	0.15	0.39					CWIP, SRF, LCBP	75	\$34,675
27 Milton	0.86	1.62					CWIP, SRF, LCBP	432	\$198,723
28 Milton	0.25	0.80					CWIP, SRF, LCBP	127	\$58,347
29 Milton	0.28	0.43					CWIP, SRF, LCBP	138	\$63,345
30 Milton	0.11	0.37					CWIP, SRF, LCBP	54	\$24,718
31 Milton	0.01	0.02					CWIP, SRF, LCBP	3	\$1,467
32 Milton	0.02	0.06					CWIP, SRF, LCBP	11	\$4,867
33 Milton	0.11	0.30					CWIP, SRF, LCBP	56	\$25,976
34 Milton	0.02	0.05					CWIP, SRF, LCBP	11	\$5,109
35 Milton	0.27	0.51					CWIP, SRF, LCBP	133	\$61,241
36 Milton	0.17	0.33					CWIP, SRF, LCBP	85	\$38,937
37 Milton	0.11	0.25					CWIP, SRF, LCBP	54	\$24,997
38 Milton	0.01	0.03					CWIP, SRF, LCBP	5	\$2,099
39 Milton	0.01	0.04					CWIP, SRF, LCBP	6	\$2,942
40 Milton	0.09	0.17					CWIP, SRF, LCBP	46	\$21,369
41 Milton	0.94	0.90					CWIP, SRF, LCBP	471	\$216,517
42 Milton	0.04	0.05					CWIP, SRF, LCBP	18	\$8,111
43 Milton	0.03	0.11					CWIP, SRF, LCBP	17	\$7,618
44 Milton	0.26	0.66					CWIP, SRF, LCBP	130	\$59,570
45 Milton	0.03	0.07					CWIP, SRF, LCBP	13	\$5,884
46 Milton	0.07	0.17					CWIP, SRF, LCBP	34	\$15,572

Target Maps

***Showing Priority Action List
Drainage Areas***

And Potential Retrofit Locations

Subwatershed: 8
Action List: 1

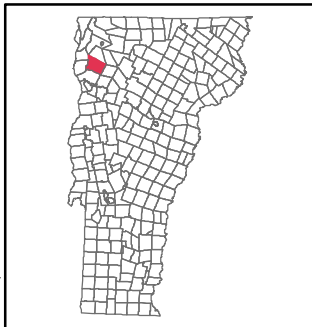


Milton, VT

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.

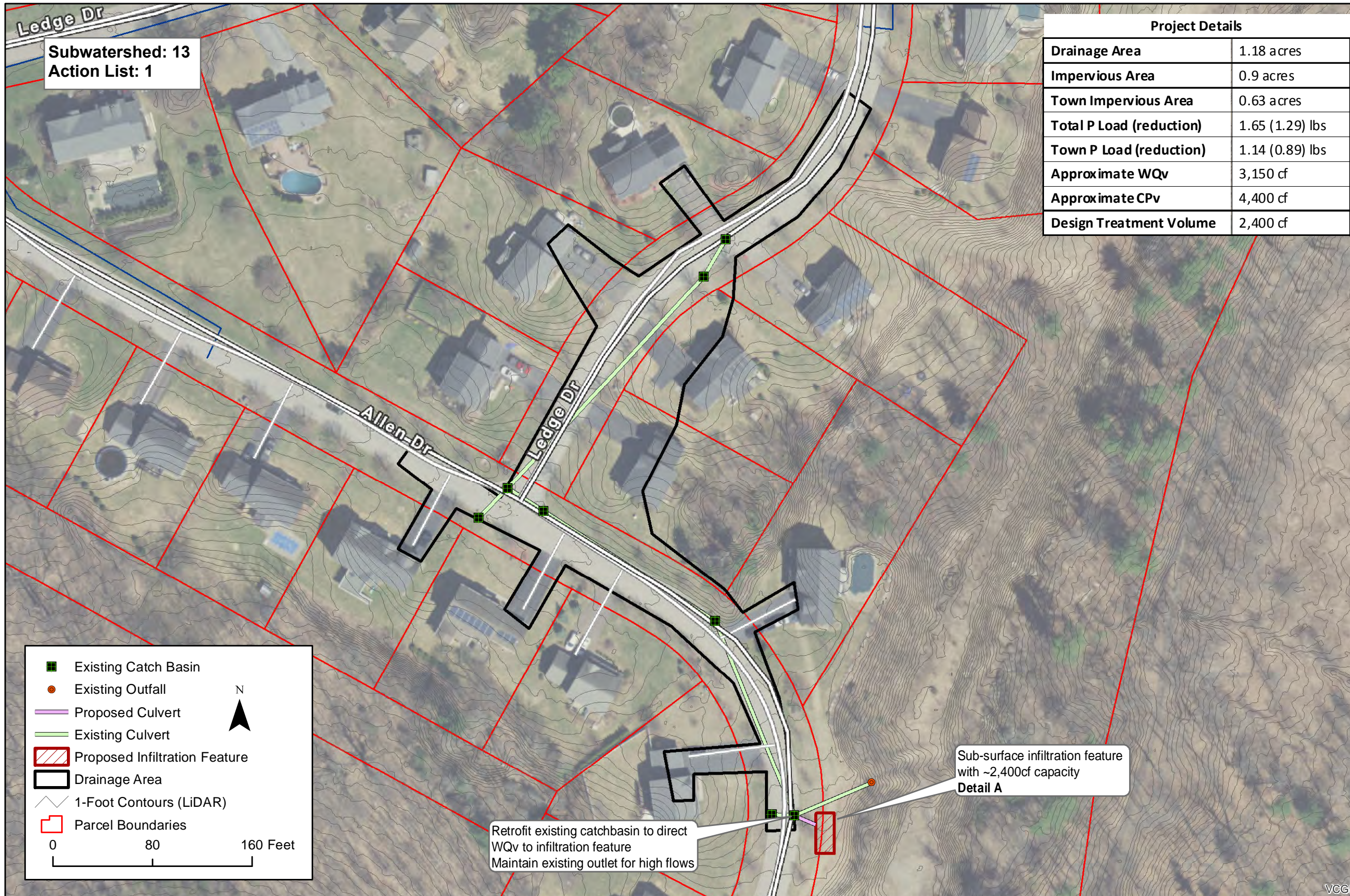
The data shown on this map is only as accurate as the available sources and field observations allowed and should be used as a basic planning level tool only.



- | | |
|--|---|
| <p>Stormwater points</p> <ul style="list-style-type: none"> 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 | <p>Stormwater line</p> <ul style="list-style-type: none"> 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 |
|--|---|

- | | |
|---|---|
| <p>NRCS - Soils</p> <ul style="list-style-type: none"> A B C D | <p>SubwatershedID</p> <ul style="list-style-type: none"> Priority Subwatershed Stormwater Treatment Area Potential Stormwater Treatment Area |
|---|---|

Creator: Jim Pease, David Ainley
 DEC - WID - Clean Water Initiative Program
 Plotted Date: 7/22/2022
 Data Sources: VTRANS Roads data, VT Hydrography data set, DEC Stormwater database, NRCS soils survey
 Imagery Source: VCGI Best Available Imagery



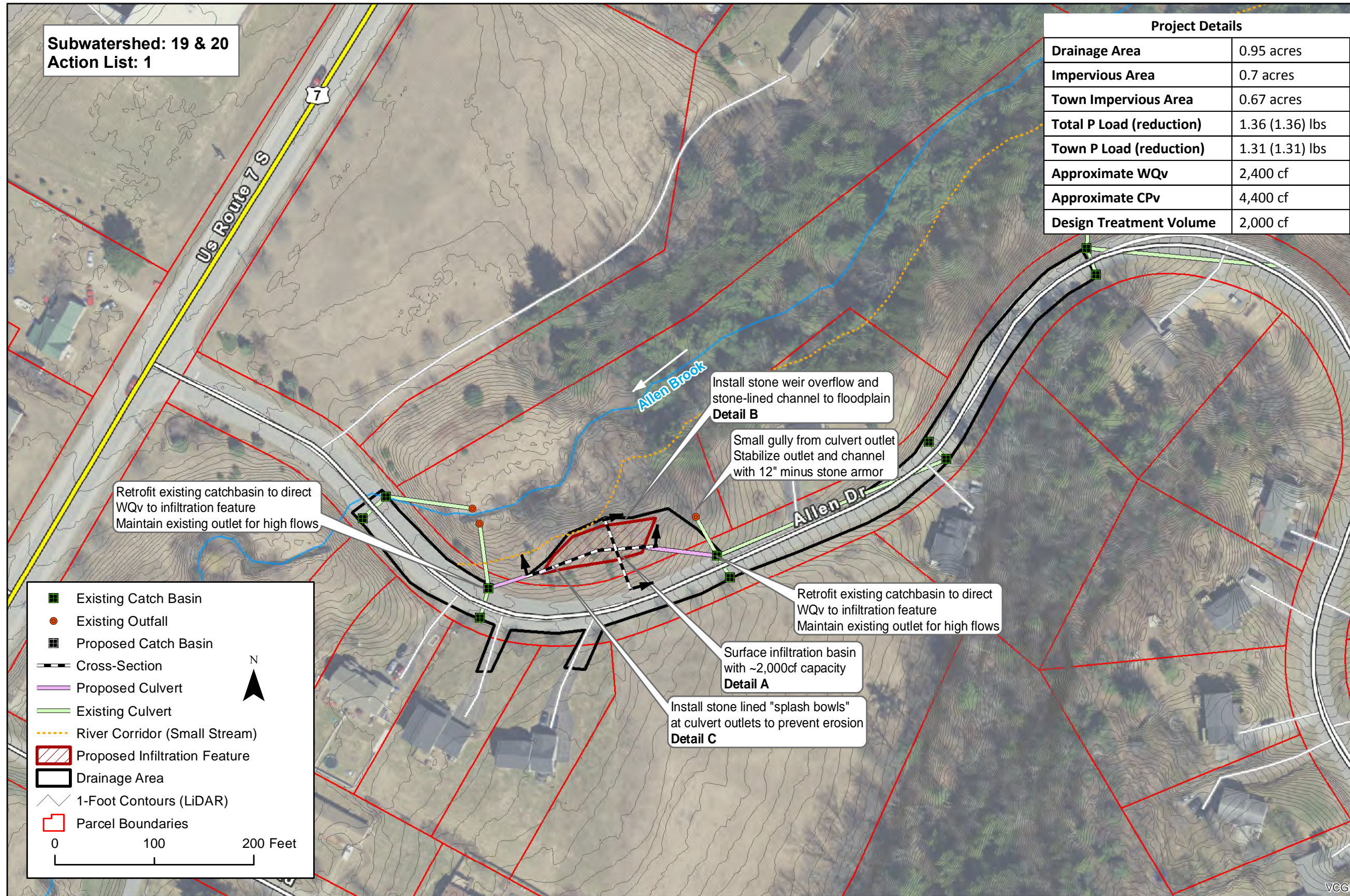
Notes

- VCGI Imagery from 2018.
- DEM from 2014 LiDAR (0.7 m).
- Site survey completed May 2019

Town of Milton SWMP
AB-3
Concept Design (30%)
Allen Drive

JHB, EHB
Drawn Checked
Scale 1" = 80'
Date June 4, 2019

Sheet 1
SHEET NO.



Subwatershed: 19 & 20
Action List: 1

Project Details	
Drainage Area	0.95 acres
Impervious Area	0.7 acres
Town Impervious Area	0.67 acres
Total P Load (reduction)	1.36 (1.36) lbs
Town P Load (reduction)	1.31 (1.31) lbs
Approximate WQv	2,400 cf
Approximate CPv	4,400 cf
Design Treatment Volume	2,000 cf

Fitzgerald Environmental Associates, LLC.

18 Severance Green, Suite 203
Colchester, VT 05446
Tel: 802.876.7778
www.fitzgeraldenvironmental.com

Notes
 - VCGI Imagery from 2018.
 - DEM from 2014 LIDAR (0.7 m).
 - Site survey completed April 2019

Town of Milton SWMP
 AB-2
 Concept Design (30%)
 Allen Drive

JHB, EHB
 Drawn Checked
 1" = 100'
 Scale
 May 31, 2019
 Date

Sheet 1
 SHEET NO.