

STATE OF VERMONT

2020

303(d) LIST OF IMPAIRED WATERS

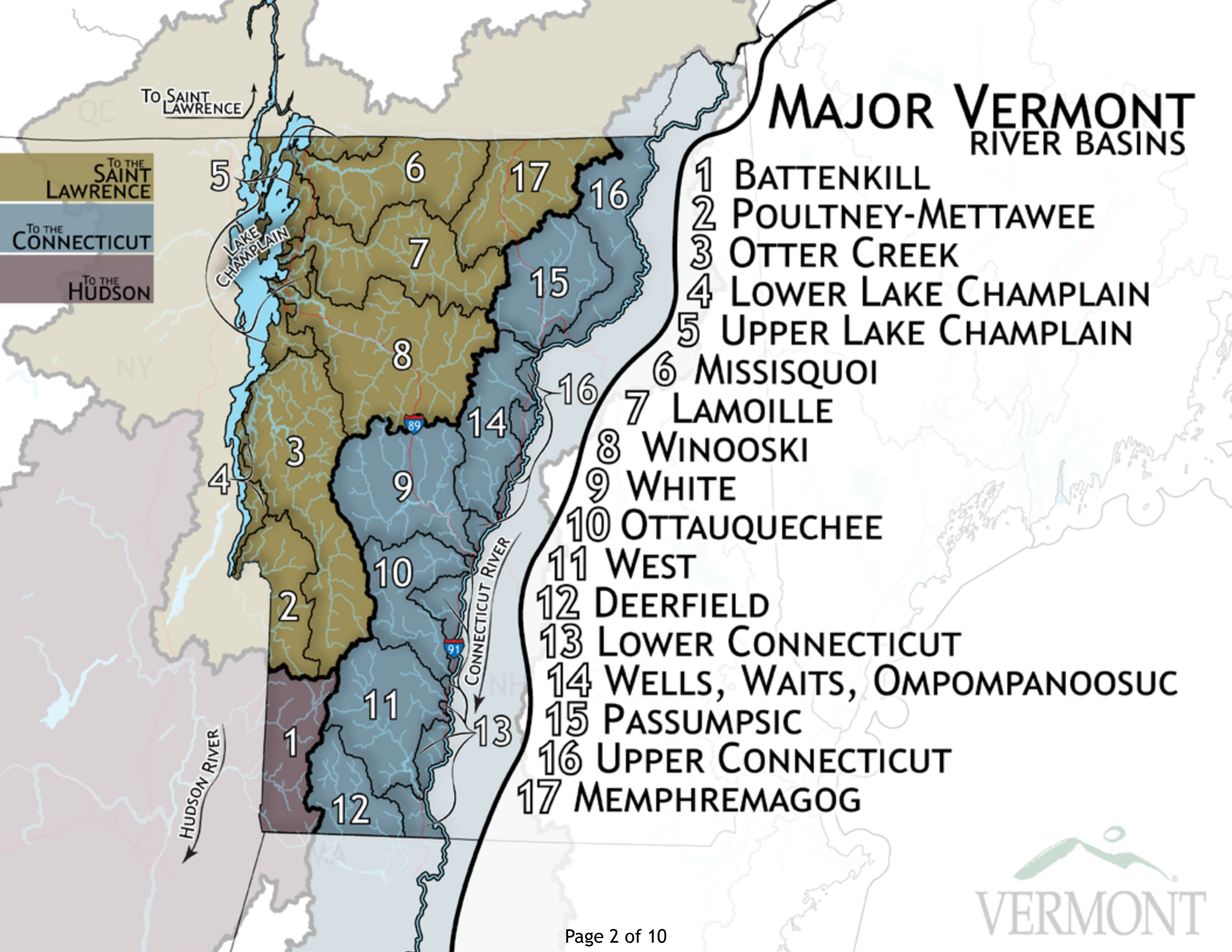
PART A. IMPAIRED SURFACE WATERS IN NEED OF TMDL

Approved by EPA Region 1: September 17, 2020

**Vermont Department of Environmental Conservation
Watershed Management Division
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MAJOR VERMONT RIVER BASINS



- 1 BATTENKILL
- 2 POULTNEY-METTAWEE
- 3 OTTER CREEK
- 4 LOWER LAKE CHAMPLAIN
- 5 UPPER LAKE CHAMPLAIN
- 6 MISSISQUOI
- 7 LAMOILLE
- 8 WINOOSKI
- 9 WHITE
- 10 OTTAUQUECHEE
- 11 WEST
- 12 DEERFIELD
- 13 LOWER CONNECTICUT
- 14 WELLS, WAITS, OMPOMPANOOSUC
- 15 PASSUMPSIC
- 16 UPPER CONNECTICUT
- 17 MEMPHREMAGOG

Part A of the 2020 List of Waters identifies impaired surface waters where a total maximum daily load (TMDL) is required. Part A of the List has been prepared in accordance with the Vermont Surface Water Assessment and Listing Methodology, current EPA Guidance and the Environmental Protection Regulations 40 CFR 130.7. A TMDL is deemed necessary for these waters (unless remediation will be completed prior to the scheduled TMDL) in order to establish the maximum limit of a pollutant that may be introduced into the water and still ensure the Water Quality Standards are attained and maintained

Waterbody ID - The two digits following VT identifies the **MAJOR VERMONT RIVER BASIN** illustrated above and the two digits following - identifies the sub basin or mainstem within the major basin.

Code - If the code contains an L the listing is a Lake within the sub basin and if the code is two digits the listing is a river reach within the sub basin or mainstem.

Altered Use(s) - (ALS) Aquatic biota and wildlife that may utilize or are present in the waters; (AH) Aquatic habitat to support aquatic biota, wildlife, or plant life; (CR) The use of waters for swimming and other primary contact recreation; (RF) The use of waters for fishing and related recreational uses; (RB) The use of waters for boating and related recreational uses; (AES) The use of waters for the enjoyment of aesthetic conditions

TMDL Priority - An indication of priority as to when TMDLs will be completed (High = 1-3 years, Medium= 4-8 years, Low = 8+ years)

Waterbody ID	Code	Waterbody Name	Impaired Use(s)	Pollutant	Problem	TMDL Priority
VT01-02	01	Hoosic River, Entire 7 Mile Length in Vermont	FC	PCBS IN FISH TISSUE	Elevated levels of toxic contaminant in Brown Trout	Low
	02	Ladd Brook, Mouth to rm 0.4	ALS	SEDIMENTATION/SILTATION	Indication of sediment stress; potential impacts from eroding gravel roads	Medium
VT01-03	01	Barney Brook, Mouth to rm 1.5	AES, ALS	SEDIMENTATION/SILTATION, IRON	Downstream of landfill, hazardous site, and constructed wetlands; silt and iron precipitate impact fish/invertebrates	Medium
VT01-05	01	Lye Brook, rm 2.5 to Headwaters (4.5 Miles)	ALS	pH, LOW	Atmospheric deposition: critically acidified; chronic acidification	Medium
	03	Munson Brook	ALS	SEDIMENTATION/SILTATION	Runoff from developed lands, chloride stress biological community	Low
VT01-06	01	Branch Pond Brook (Pond to Roaring Branch)	ALS	pH, LOW	Atmospheric deposition: critically acidified; chronic acidification	Medium
	02	Fayville Branch, rm 3.7 to Headwaters	ALS	pH, LOW	Atmospheric deposition: critically acidified; chronic acidification	Medium
	L04	Lost (Sundld)	AH, ALS	pH	Atmospheric deposition: critically acidified; chronic acidification	Medium
VT02-02	01	Hubbardton River, Trib #7, Below WWTF Discharge	ALS	NUTRIENTS	Benson WWTF, agricultural runoff, elevated chloride possible sources	Medium
VT02-05	02	Unnamed Trib to Indian River	ALS	ZINC, IRON	Pawlet landfill leachate, monitoring to continue to better identify source location	Low

Waterbody ID	Code	Waterbody Name	Impaired Use(s)	Pollutant	Problem	TMDL Priority
	04	Mettawee River, Flower Brook Confluence Downstream 4.3 Mi.	CR	ESCHERICHIA COLI (<i>E. coli</i>)	Consistently elevated <i>E. coli</i>	Low
VT03-01	02	Lower Otter Creek, Mouth Upstream to Vergennes Dam (Approx 7.6 Miles)	CR	ESCHERICHIA COLI (<i>E. coli</i>)	Periodic & recurring overflows at pump stations within the collection system	Low
VT03-04	02	Pleasant Brook from Leicester-Whiting Rd Upstream to VT Route 73e (2.2 Miles)	ALS	NUTRIENTS	Runoff from agricultural lands	Medium
VT03-05	01	Otter Creek, Vicinity of Rutland City WWTF	AES, CR	ESCHERICHIA COLI (<i>E. coli</i>), ORGANIC ENRICHMENT (SEWAGE) BIOLOGICAL INDICATORS	Rutland City WWTF collection system passes CSOs	Low
VT03-06	01	Moon Brook, Mouth to 1.8	CR	ESCHERICHIA COLI (<i>E. coli</i>)	Consistently elevated <i>E. coli</i>	Low
	02	Mussey Brook, Mouth to rm 0.1	CR	ESCHERICHIA COLI (<i>E. coli</i>)	Consistently elevated <i>E. coli</i>	Low
	06	Mussey Brook, rm 0.1 to rm 0.5	CR	ESCHERICHIA COLI (<i>E. coli</i>)	Consistently elevated <i>E. coli</i>	Low
VT03-12	02	Halnon Brook, Tributary #10	ALS	NUTRIENTS	Elevated nutrients affect aquatic biota	Medium
VT03-14	01	East Creek, Mouth to 0.2 Mi (Below CSO Discharge Pts #2, 3, 4, & 5)	AES, CR	ORGANIC ENRICHMENT (SEWAGE) BIOLOGICAL INDICATORS, ESCHERICHIA COLI (<i>E. coli</i>)	Rutland City collection system CSO	Low
	04	Tenney Brook, Mouth to rm 1.0	ALS	CAUSE UNKNOWN	Failed biological criteria; stressors include elevated temperature, nutrients and developed land runoff	
VT04-01	L01	Otter Creek Section - Lake Champlain (Ferrisburg)	FC	PCBS IN FISH TISSUE	Elevated levels of PCBs in lake trout	Low
	L02	Port Henry Section - Lake Champlain (Ferrisburg)	FC	PCBS IN FISH TISSUE	Elevated levels of PCBs in lake trout	Low
VT04-02	L01	Southern Section - Lake Champlain (Bridport)	FC	PCBS IN FISH TISSUE	Elevated levels of PCBs in lake trout	Low

Waterbody ID	Code	Waterbody Name	Impaired Use(s)	Pollutant	Problem	TMDL Priority
VT05-01	01	Rock River, Mouth to VT/Quebec Border (3.6 Miles)	AES, AH	NUTRIENTS, SEDIMENTATION/SILTATION	Algal growth; agricultural runoff	Medium
	02	Rock River, Upstream from Quebec/VT Border (Approx 13 Miles)	ALS	SEDIMENTATION/SILTATION, NUTRIENTS	Nutrient enrichment; agricultural runoff	High
	03	Saxe Brook (Trib to Rock River) from Mouth Upstream 1 Mile	ALS	NUTRIENTS	Agricultural runoff	Medium
VT05-04	L01	Northeast Arm - Lake Champlain (Swanton)	FC	PCBS IN FISH TISSUE	Elevated levels of PCBs in lake trout	Low
	L02	Isle Lamotte - Lake Champlain (Alburg)	FC	PCBS IN FISH TISSUE	Elevated levels of PCBs in lake trout	Low
VT05-07	01	Rugg Brook, from Mouth to Approx 3.1 Miles Upstream	AES, ALS, CR	NUTRIENTS, SEDIMENTATION/SILTATION, ESCHERICHIA COLI (<i>E. coli</i>)	Agricultural runoff	High
	03	Jewett Brook (3.5 Miles)	ALS	SEDIMENTATION/SILTATION, NUTRIENTS	Agricultural runoff	High
	04	Mill River, from St. Albans Bay to 1.8 Miles Upstream	ALS	NUTRIENTS, SEDIMENTATION/SILTATION	Agricultural runoff, streambank erosion	High
	05	Stevens Brook, Mouth Upstream 6.5 Miles	ALS, CR	NUTRIENTS, SEDIMENTATION/SILTATION, ESCHERICHIA COLI (<i>E. coli</i>)	Agricultural runoff; morphological instability; St Albans CSO	High
	06	Stevens Brook, Lasalle St Downstream 0.5 Miles	ALS, CR	METALS	Sediment contamination from St Albans Gas and Light hazardous waste site	Low
	L01	St. Albans Bay - Lake Champlain (St. Albans)	FC	PCBS IN FISH TISSUE	Elevated levels of PCBs in lake trout	Low
VT05-09	L01	Malletts Bay - Lake Champlain (Colchester)	FC	PCBS IN FISH TISSUE	Elevated levels of PCBs in lake trout	Low
VT05-10	01	Englesby Brook, Mouth to rm 1.3	ALS	CHLORIDE	Elevated chloride levels due to road salt	Low
	L01	Burlington Bay - Lake Champlain (Burlington)	FC	PCBS IN FISH TISSUE	Elevated levels of PCBs in lake trout	Low
	L02	Main Section - Lake Champlain (South Hero)	FC	PCBS IN FISH TISSUE	Elevated levels of PCBs in lake trout	Low
VT05-11	03	Potash Brook, Mouth Upstream 1 Mile	ALS	CHLORIDE	Elevated chloride levels due to road salt	Low

Waterbody ID	Code	Waterbody Name	Impaired Use(s)	Pollutant	Problem	TMDL Priority
	06	Mccabes Brook, Mouth to rm 1.4	ALS	NUTRIENTS	Includes above and below WWTF; possible toxic impact below WWTF; unstable channel above	Medium
	07	Potash Brook, I189 River Upstream 4.2 Miles	ALS	CHLORIDE	Elevated chloride levels due to road salt	Low
	11	Potash Brook Trib 7	ALS	CHLORIDE	Elevated chloride levels due to road salt	Low
	12	Upper Potash Brook, Kennedy Drive to Above Route 89	ALS	CHLORIDE	Elevated chloride levels due to road salt	Low
	L01	Shelburne Bay - Lake Champlain (Shelburne)	FC	PCBS IN FISH TISSUE	Elevated levels of PCBs in lake trout	Low
VT06-03	01	Morrow Brook from Its Mouth Upstream 2 Miles	ALS	NUTRIENTS	Runoff from agricultural lands	High
VT06-04	01	Berry Brook, Mouth Up to and Including N. Trib (Approx. 1 Mile)	AES, ALS	SEDIMENTATION/SILTATION, NUTRIENTS	Agricultural runoff, aquatic habitat impacts	High
	02	Godin Brook	AES, ALS	NUTRIENTS, SEDIMENTATION/SILTATION	Agricultural runoff, aquatic habitat impacts	High
	03	Samsonville Brook	AES, ALS	NUTRIENTS, SEDIMENTATION/SILTATION	Agricultural runoff, aquatic habitat impacts	Medium
	04	Trout Brook, Upstream from Mouth for 2.3 Miles	ALS	NUTRIENTS	Runoff from agricultural lands	High
	06	Giddings Brook from Its Confluence with the Missisquoi Upstream 4 Miles	ALS	NUTRIENTS, POLLUTANTS IN URBAN STORMWATER	Runoff from agricultural and developed lands	High, Low
VT06-05	02	Wanzer Brook (Mouth to rm 4.0)	ALS	NUTRIENTS, SEDIMENTATION/SILTATION	Agricultural runoff	High
VT06-08	03	Mud Creek, from Vt/Que Border Up to rm 6.5 (Approx. 3.2 Miles)	AES, ALS	SEDIMENTATION/SILTATION, NUTRIENTS	Agricultural runoff; nutrient enrichment impacts macroinvertebrates	High
	04	Coburn Brook (Mouth to rm 0.2)	ALS	NUTRIENTS	Agricultural activities and runoff	High
	05	Burgess Brook, rm 4.9 to 5.4	ALS, CR	SEDIMENTATION/SILTATION, ASBESTOS	Asbestos mine tailings erosion; asbestos fibers	Low

Waterbody ID	Code	Waterbody Name	Impaired Use(s)	Pollutant	Problem	TMDL Priority
	06	Burgess Brook Tributary# 11, Mouth to rm 0.5	ALS, CR	SEDIMENTATION/SILTATION, ASBESTOS	Asbestos mine tailings erosion; asbestos fibers	Low
	09	Jay Branch Tributary # 7 (2.2 Mi.)	ALS	SEDIMENTATION/SILTATION	Erosion from parking areas and on-mountain activities	Medium
	10	Ace Brook, rm 0.7 to Headwaters 1 Miles	ALS	SEDIMENTATION/SILTATION	Sediment discharges and hydrologic change from logging activity	Low
VT07-01	03	Lamoille River Trib #4, rm 0.4 to rm 0.7	ALS	METALS	Old Milton landfill (Pb, Zn, Cu, Fe) impacts macroinvertebrates	Medium
VT07-03	01	Deer Brook, Mouth to 2.5 Miles Upstream	ALS	SEDIMENTATION/SILTATION	Erosion from stormwater discharges; corroding road culverts; BMPs implemented	Medium
	02	Stones Brook from 150 Feet Below Fairfax Road Upstream to the Confluence with Halfmoon Brook (1 Mile)	ALS	NUTRIENTS	Agricultural runoff, loss of riparian buffer	High
	L01	Halfmoon	AES	PHOSPHORUS, TOTAL	Extremely elevated TP; agricultural influences	Low
VT07-08	01	Rodman Brook, Mouth to rm 0.6	AES, ALS	IRON	Impacts from landfill leachate; bio community improving; monitoring to continue	Medium
VT07-13	01	Trib #10 to Brewster River (1 Mile)	AES, ALS	IRON	Iron seeps on streambank, BMPs in place	Low
VT07-15	01	Hutchins Brook, rm 2.0 to 3.0	AES, ALS, CR	ASBESTOS, SEDIMENTATION/ SILTATION	Asbestos mine tailings erosion; asbestos fibers	Low
	02	Hutchins Brook Tributary #4, Mouth to rm 0.3	AES, ALS, CR	SEDIMENTATION/SILTATION, ASBESTOS	Asbestos mine tailings erosion; asbestos fibers	Low
VT08-01	01	Winooski River, Mouth to Winooski Dam	CR	ESCHERICHIA COLI (<i>E. coli</i>)	Burlington CSOs	Low
VT08-02	03	Muddy Brook Tributary #4 and Trib to Trib #4	ALS	TOXICITY, CHLORIDE	Chloride criteria exceeded; impacts to macroinvertebrates	Low
	05	Centennial Brook, Mouth to rm 1.2	ALS	CHLORIDE	Elevated chloride levels due to road salt	High
	08	Sunnyside Brook (Trib #8 to Sunderland Brook) (1.2 Mi.)	ALS	CHLORIDE	Elevated chloride levels due to road salt	High
	L01	Shelburne	ALS, CR, RF	PHOSPHORUS	Excessive algae and native plant growth causes periodic low dissolved Oxygen and fish kills	Low

Waterbody ID	Code	Waterbody Name	Impaired Use(s)	Pollutant	Problem	TMDL Priority
VT08-04	02	Goose Pond Brook	ALS	pH, LOW	Chronic acidification	Low
VT08-05	01	Winooski River Above Montpelier WWTF Discharge	CR	ESCHERICHIA COLI (<i>E. coli</i>)	Montpelier WWTF collection system passes CSOs	Low
VT08-07	01	Winooski River, Plainfield rm 70.7 to rm 71.4	CR	ESCHERICHIA COLI (<i>E. coli</i>)	Consistently elevated <i>E. coli</i>	Low
	02	Winooski River, Marshfield, rm 72.8 Up to Confluence with Mollys Brook	CR	ESCHERICHIA COLI (<i>E. coli</i>)	Consistently elevated <i>E. coli</i> , impairment continues upstream into VT08-09	Low
VT08-08	02	Blanchard Brook, Mouth to rm 0.4	ALS	TEMPERATURE, CAUSE UNKNOWN	Failed biocriteria; stressors include temperature, chloride, sediment, nutrients and developed land runoff	Medium,
VT08-09	03	Winooski River, Cabot, Mollys Falls Brook Up to rm 83.8	CR	ESCHERICHIA COLI (<i>E. coli</i>)	Consistently elevated <i>E. coli</i> ; continuation of downstream impairment from VT08-07	Low
VT08-11	L02	Waterbury Reservoir (Waterbury)	AES, AH, ALS	SEDIMENTATION/SILTATION	Sedimentation, turbidity	Low
VT08-12	01	Inn Brook, rm 0.3 to 0.6	AES, ALS	IRON	Iron seeps originating from disturbed soils	Low
VT08-13	01	Lower North Branch, Winooski River Mouth to Montpelier Rec Fields	CR	ESCHERICHIA COLI (<i>E. coli</i>)	Montpelier WWTF collection system passes CSOs	Low
VT08-16	01	Gunner Brook, Below Farwell St. Dump (Approx 0.5 Mile)	AES, ALS, CR	TOXICITY, SEDIMENTATION/SILTATION	Farwell St. landfill leachate, surface runoff from developed area	Medium
	04	Stevens Branch, from Barre City Limits to Mouth, 5.8 Miles	CR	ESCHERICHIA COLI (<i>E. coli</i>)	Consistently elevated <i>e. coli</i> , urban runoff	Low
VT08-17	01	Dog River, Riverton Canoe Access Downstream 0.5 Miles	CR	ESCHERICHIA COLI (<i>E. coli</i>)	Consistently elevated <i>E. coli</i>	Low
	L01	Beaver (Roxbry)	AH, ALS	pH	Atmospheric deposition; extremely sensitive to acidification; episodic acidification	Low
VT08-20	01	Clay Brook, rm 1.8 to rm 2.3	AES, ALS	POLLUTANTS IN URBAN STORMWATER, IRON	Stormwater runoff, erosion from construction activities & gravel parking lot; increased peak stormwater flows	Low
VT09-04	01	First Branch White River, Mouth to rm 15.2	CR	ESCHERICHIA COLI (<i>E. coli</i>)	Consistently elevated <i>E. coli</i>	Low

Waterbody ID	Code	Waterbody Name	Impaired Use(s)	Pollutant	Problem	TMDL Priority
VT09-05	01	Second Branch White River, Mouth to rm 9.8	CR	ESCHERICHIA COLI (<i>E. coli</i>)	Consistently elevated <i>E. coli</i>	Low
VT09-06	01	Smith Brook (Mouth to rm 0.3)	AES, ALS	IRON	Apparent leachate from adjacent old dump	Medium
	02	Third Branch White River, Mouth to rm 4.3	CR	ESCHERICHIA COLI (<i>E. coli</i>)	Consistently elevated <i>E. coli</i>	Low
VT10-04	01	Small Stream to Ottauquechee River (Bridgewater)	AES, ALS	IRON	Bridgewater landfill; leachate entering surface water	Medium
VT10-06	01	Roaring Brook, rm 3.5 to rm 4.2	AES, ALS	POLLUTANTS IN URBAN STORMWATER	Stormwater runoff, land development, erosion	Low
	02	E. Branch Roaring Brook, rm 0.1 to rm 0.6	AES, ALS	IRON, POLLUTANTS IN URBAN STORMWATER	Stormwater runoff, land development, erosion	Low
VT11-10	01	West River, Below Ball Mountain Dam to Townshend Dam (9 Miles)	RF	TEMPERATURE	Artificial flow regime at dam	Low
VT11-15	04	Bear Creek Brook, rm 0.7 to Headwaters	ALS	pH, LOW	Atmospheric deposition: critically acidified; chronic acidification	Medium
	05	Kidder Brook, Confluence of Sun Bowl Brook to Headwaters	ALS	pH, LOW	Atmospheric deposition: critically acidified; chronic acidification	Medium
VT12-03	01	East Branch Deerfield River, Below Somerset Dam	ALS	pH, LOW	Atmospheric deposition: critically acidified; chronic acidification, low temperature dam release	Medium
VT12-04	01	Upper Deerfield River, Below Searsburg Dam	ALS	pH, LOW	Atmospheric deposition: critically acidified; chronic acidification	Medium
VT12-05	01	No. Branch Deerfield River, Tannery Brk Rd to Snow Lake	ALS	TEMPERATURE	High temperatures below Snow Lake impact aquatic biota	Low
	03	Iron Stream, Trib to Jacks Brook (0.3 Mile)	AES, ALS	IRON	Land development, source(s) need further assessment	Medium
	06	Ellis Brook, Mouth to rm 0.5	ALS	NUTRIENTS, TEMPERATURE	Possible impacts from Nbfd WWTF, agricultural runoff and channel alterations, lack of riparian buffer; high algal cover	Medium
VT13-06	01	Neal Brook, Mouth to rm 0.4	ALS	METALS	Landfill drainage impacts macroinvertebrates	Medium
VT13-10	01	Commissary Brook Trib, Mouth to rm 0.2	AES, ALS	SEDIMENTATION/SILTATION	Bank failure and erosion due to past clay mining	Low

Waterbody ID	Code	Waterbody Name	Impaired Use(s)	Pollutant	Problem	TMDL Priority
VT13-13	01	Crosby Brook, Mouth to rm 0.7	ALS	SEDIMENTATION/SILTATION	Habitat alterations due to sedimentation, channelization, and buffer loss	Medium
VT13-16	01	Newton Brook, Mouth to rm 2.0	ALS	SEDIMENTATION/SILTATION	Agricultural activity	Medium
VT14-02	02	Copperas Brook (1 Mile)	AES, ALS, CR, FC, RB	METALS	High metals in drainage from abandoned Elizabeth mine & tailings piles	Low
	04	Lords Brook, Headwater Tributary #2 and Trib 2-Trib 1	ALS	METALS	Abandoned mine drainage below South Cut and South Mine	Low
VT14-03	03	Schoolhouse Brook and Tributary	AES, ALS	METALS	High metal concentrations in drainage from abandoned Ely Mine	Medium
VT14-05	01	Pike Hill Brook, from Mouth to 4 Miles Upstream	AES, ALS	METALS	High metal concentrations in drainage from abandoned Pike Hill Mine & Tailings	Medium
	02	Tabor Branch Tributary #6, Mouth to rm 0.1	ALS	CAUSE UNKNOWN	Agricultural runoff	
VT14-06	01	Cookville Trib #4, rm 1.0 to 1.7	ALS	METALS	Acid mine drainage associated with Pike Hill mine	Low
VT15-01	01	Passumpsic River, Tremont Street Downstream 5 Miles Through St J.	CR	ESCHERICHIA COLI (<i>E. coli</i>)	St. Johnsbury WWTF collection system passes combined sewer overflows	Low
VT15-04	01	Lower Sleepers River in St. Johnsbury	CR	ESCHERICHIA COLI (<i>E. coli</i>)	St. Johnsbury WWTF collection system passes combined sewer overflows	Low
VT16-13	L04	Unknown (Ferdnd)	AH, ALS	pH	Atmospheric deposition: extremely sensitive to acidification; episodic acidification	Medium
VT17-02	01	Stearns Brook Tributary (Holland)	ALS	NUTRIENTS	Agricultural runoff	High
VT17-08	01	Roaring Brook, rm 2.4 to Lake Parker	ALS	NUTRIENTS	Agricultural runoff impacts macroinvertebrates	Low
VT17-09	L01	Walker (Covnty)	AES	PHOSPHORUS, TOTAL	Extremely elevated TP concentrations; agricultural influences	Low
VT17-10	L02	Mud (Crafby)	AES	PHOSPHORUS, TOTAL	Extremely elevated TP concentrations; agricultural influences	Low