

STATE OF VERMONT

2020

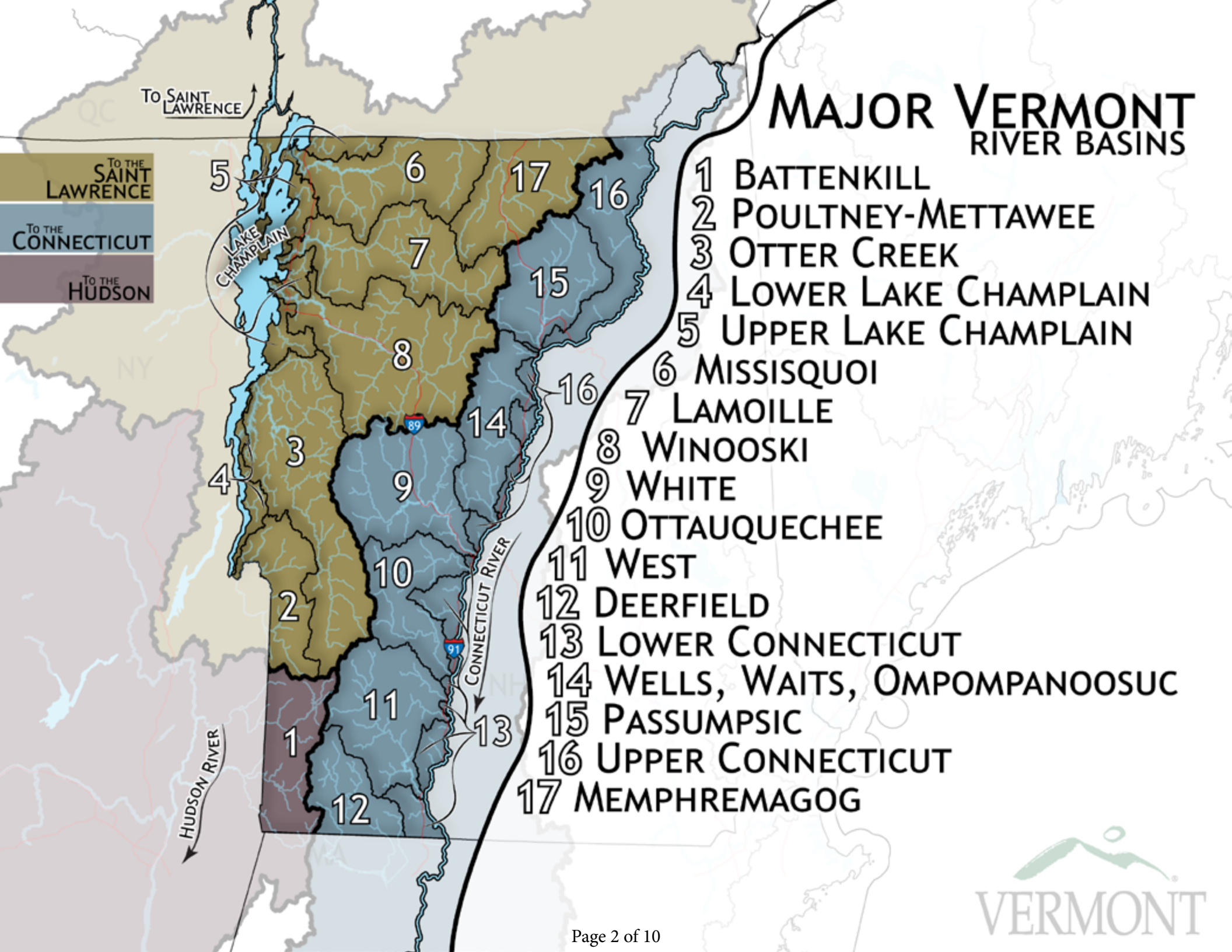
LIST OF PRIORITY SURFACE WATERS

PART F. SURFACE WATERS ALTERED BY FLOW REGULATION

**Vermont Department of Environmental Conservation
Watershed Management Division
One National Life Drive, Davis 3
Montpelier, VT 05620-3522**

www.watershedmanagement.vt.gov

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

Waters appearing in Part F of the Vermont Priority Waters List are assessed as “altered.” Alterations arise from flow fluctuation, obstructions, or other manipulations of water levels that originate from hydroelectric facilities, dam operations or water withdrawals for industrial or municipal water supply or snowmaking purposes. These waters correspond to Category 4c of EPA’s Consolidated Assessment Listing Methodology.

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

Waterbody ID	Code	Waterbody Name	Altered Use(s)	Problem	Status	Compliance Year
VT01-03	02	Basin Brook	ALS	Possible lack of minimum flow below water supply withdrawal point	WSID #5017 - North Bennington Water Department; serves as back up supply source to gravel well field, permit down to 3.0 mgd from 4.0 mgd	NA
	03	Bolles Brook/Roaring Branch, Intake to City Stream Confluence	ALS	Possible lack of minimum flow below water supply withdrawal point	WSID #5016 - Bennington Water Department; assessment of water withdrawal impact difficult given low productivity & low pH effect	NA
VT01-05	02	Hopper Brook	ALS	Artificial flow regime and condition by hydroelectric operations may alter aquatic habitat	Unlicensed hydroelectric project 2022	
	L02	Lake Madeleine	AH, ALS	Water level fluctuation alters aquatic habitat	Unlicensed hydroelectric project 2022	
VT02-03	02	Lake Bomoseen Outlet Stream (0.4 Mi)	ALS	Flow fluctuation and no minimum flow below the Lake Bomoseen dam used to manage water level	Engage Dec dam safety program on the management on downstream flows from the dam	NA
VT03-04	01	Leicester River, from Lake Dunmore Dam to 6 miles downstream, including Salisbury Dam	ALL USES	Artificial flow regulation & condition by hydroelectric dam; artificial flow regulation & condition by hydroelectric dam	GMP needs 404 ACOE to complete work on the dam; DEC trigger section 401 to address flow and water level issue	2021

Waterbody ID	Code	Waterbody Name	Altered Use(s)	Problem	Status	Compliance Year
	L05	Lake Dunmore (Salisbury)	AH, ALS	Water level management by hydro alters aquatic biota	GMP needs 404 ACOE to complete work on the dam; DEC trigger section 401 to address flow and water level issue	2021
VT03-12	03	South Branch, Middlebury River (1.4 Miles)	ALS	Artificial flow condition, insufficient flow below Snow Bowl snowmaking water withdrawal	Partial support 1.4 mi (6.0 mi total length)	NA
VT03-14	02	East Creek Below Chittenden Reservoir	ALL USES	Artificial flow regulation & condition by dam; only local drainage below; possible fish passage problem at dam (threat)	Unlicensed facility	2024
	05	East Creek Below Glen Dam	ALL USES	Artificial flow regulation & condition by dam; only local drainage below; possible fish passage problem at dam (threat)	Unlicensed facility	2024
	06	East Creek Below Patch Dam	ALL USES	Artificial flow regulation & condition by hydro; possible downstream fish passage problem at dam (threat)	Unlicensed facility	2024
	07	Trib to East Creek	ALS	Low dissolved oxygen downstream of hydro facility	Unlicensed facility	2024
	L03	Chittenden Reservoir (Chittenden)	AH, ALS	Water level fluctuation by hydro alters biological community & wetlands	Unlicensed facility	2024
	L05	Patch Pond (Rutland)	AH, ALS, RB	Water level fluctuations alter biological community	Unlicensed facility	2024
VT06-01	02	Missisquoi River Between Swanton Dam and Highgate Falls	ALS, RB	Artificial flow fluctuating and condition by hydropower production	FERC license expires 2024	2024
	03	Missisquoi River Between Sheldon Springs and Highgate Falls	ALS, RB	Artificial flow fluctuating and condition by hydropower production	FERC license expires 2024	2024
VT06-02	01	Missisquoi River, Below Enosburg Falls Dam (0.1 Mile)	ALS	Artificial flow fluctuating and condition by hydropower production	FERC license expires 2024	2023

Waterbody ID	Code	Waterbody Name	Altered Use(s)	Problem	Status	Compliance Year
VT06-04	05	Stanhope Brook	ALS	Possible lack of minimum flow below water supply withdrawal point	Richford water supply	NA
VT06-08	08	Jay Branch (4.7 Miles)	ALS	Artificial & insufficient flow below Jay Peak snowmaking water withdrawal	Partial support 4.7 mi (8.7 mi total length); Jay Peak evaluating expansion/alternatives	NA
VT07-04	01	Mid-Lamoille River, Immed. Below Cadys Falls Dam (0.3 Miles)	AES, ALS	Artificial dewatering of falls by hydroelectric facility	Supreme court remanded issues back to environmental court; FERC license still pending	2020
VT07-07	01	Upper Lamoille River Below Morrisville Lake Dam	AES, ALS, RB	Below Morrisville dam: no flow in bypass impairs aesthetics, recreation, habitat	Supreme court remanded issues back to environmental court; FERC license still pending	2020
	02	Upper Lamoille River Below Wolcott Dam	AES, ALS, RB	Wolcott Dam: artificial & poor flow regime downstream (threat)	Supreme court remanded issues back to environmental court; FERC license still pending	2020
	03	Upper Lamoille River Below Hardwick Lake Dam	AES, ALS, RB	Hardwick Lake Dam: artificial flow regime downriver	Supreme court remanded issues back to environmental court; FERC license still pending	2024
	L01	Lake Lamoille (Morristown)	AH, ALS	Water level fluctuation by hydroelectric facility may alter aquatic habitat	Supreme court remanded issues back to environmental court; FERC license still pending	2020
VT07-08	02	Elmore Pond Brook-From Dam to 2.2 Miles Downstream	ALL USES	Artificial flow regulation & condition by dam	Supreme court remanded issues back to environmental court; FERC license still pending	2020
	L02	Lake Elmore (Elmore)	AH, ALS	Water level fluctuation by hydroelectric facility may alter aquatic habitat	Supreme court remanded issues back to environmental court; FERC license still pending	2020
VT07-13	02	Unnamed Brook, Trib to Brewster River (1 Mile)	ALS	Artificial flow regime, insufficient flow below Morse Reservoir, used for domestic water	Non-support 1.0 mi (2.7 mi total length); domestic water use	NA
VT07-18	01	Green River, Downstream from Reservoir 4.7 Miles	ALS	Artificial flow regime and condition by hydroelectric operations alters aquatic biota	Supreme court remanded issues back to environmental court; FERC license still pending	2020
	L03	Green River Reservoir	AH, ALS	Water level fluctuation and winter drawdown alters aquatic habitat	Supreme court remanded issues back to environmental court; FERC license still pending	2020

Waterbody ID	Code	Waterbody Name	Altered Use(s)	Problem	Status	Compliance Year
VT07-21	L05	Hardwick Lake (Hardwick)	AES, AH, ALS	Water level fluctuation by hydroelectric facility alters aquatic habitat & wetlands	No longer managed for hydroelectric production; lake drained during fall/winter for ice control	2024
VT08-01	02	Winooski River at Essex No. 19	AES, ALS	Artificial & inadequate flow in bypass reach	FERC licences expires in 2025	2025
	05	Winooski River, from No 19 Dam down 0.1 miles	AES, ALS			NA
VT08-04	01	Joiner Brook (2.9 Miles)	ALS	Artificial & insufficient flow below Bolton Valley snowmaking water withdrawal	Non-support 2.9 mi (5.7 mi total length)	NA
VT08-05	02	Winooski River Impoundment Above Middlesex #2 dam (2 miles)	AES, ALS	Water level fluctuation by hydro causes impoundment and streambank erosion	Unlicensed facility	2022
	04	Bypass below Middlesex #2 dam on the Winooski River	AES	Artificial dewatering of bypass by hydroelectric facility	Unlicensed facility	2022
VT08-06	01	Tyler Brk (0.1 Mi) & Merriam Brk (0.1 Mi), Thatcher Brook Tribs	ALL USES	Artificial & inadequate flow condition below Waterbury Village public water supply withdrawal point	WSID #5284 - Waterbury Village Water	NA
VT08-11	01	Lower Little River Below Hydro Dam (2.6 Miles)	ALL USES	Artificial flow regime in the winter	New turbine runner and bypass flow valve will be operational in may 2018; winter drawdown will continue until tanner gates are replaced	2022
	L02	Waterbury Reservoir (Waterbury)	ALL USES	Winter drawdown alters all uses	New turbine runner and bypass flow valve will be operational in may 2018; winter drawdown will continue until tanner gates are replaced	2022
VT08-16	03	Benjamin Falls Brook (Pond Brook) from Berlin Pond to Mouth	AES, ALS	Artificial dewatering of brook by Montpelier & Berlin water supply withdrawals	WSID #5272	NA
VT08-20	02	Mill Brook (2.1 Miles)	ALS	Artificial & insufficient flow below Mad River Glen snowmaking water withdrawal	Partial support 2.1 mi (5.9 mi total length)	NA

Waterbody ID	Code	Waterbody Name	Altered Use(s)	Problem	Status	Compliance Year
	03	Slide Brook (0.8 Mile)	ALS	Artificial & insufficient flow below Mt. Ellen snowmaking water withdrawal	Non-support 0.8 mi (3.4 mi total length)	NA
VT10-01	01	Lower Ottauquechee River, Below No. Hartland Dam (0.9 Mile)	AES, ALS, RB	Artificial flow regulation & condition	Flow regulation largely controlled by hydro facility. FERC license expires in 2021	2021
	02	Lower Ottauquechee River, Below Ottauquechee Woolen Mill Dam (0.1 Mi)	AES	Artificial flow condition, dewatering of falls by hydroelectric facility		2032
VT10-02	L01	North Hartland Reservoir (Hartland)	AH, ALS, RB	Annual water level fluctuations alter aquatic habitat	Dam now used for hydropower; operated under FERC license expiring in 2021	2021
VT10-13	01	Black River, Below North Springfield Reservoir (3.7 Miles)	ALS	Artificial flow regulation & condition by dam	USACE dam; no conservation flow based on any biological/wq criteria	NA
	L02	North Springfield Reservoir (Springfield)	AH, ALS	Water level fluctuation alters aquatic habitat	USACE dam; no conservation flow based on any biological/wq criteria	NA
VT10-16	L03	Stoughton Pond (Weathersfield)	AH, ALS	Water level fluctuation alters aquatic habitat	USACE dam; no conservation flow based on any biological/wq criteria	NA
VT11-07	07	West River, Mouth to Grassy Brook	AH, RB	Wide shallow channel, loss of riparian vegetation, USACOE dam operation		NA
	01	Retreat Meadows	AH, RB	Unique habitat impacted by Vernon Dam water level fluctuations		NA
VT11-08	01	Stickney Brook (2.5 Miles)	ALS, RB	Artificial flow condition, seasonally devoid of flow below diversion dam; dredging	WSID # 5290 - Brattleboro Water Department; water supply reservoir above dam	NA
VT11-10	01	West River, Below Ball Mountain Dam to Townshend Dam (9 Miles)	AH, ALS, CR	Artificial flow regime at dam	No minimum flow by USACE based on any biological/wq criteria. structural study complete, no action planned	NA
	02	West River, Townshend Dam to Grassy Brook	AH, RF	USACOE dam operation, impounded waters release results in elevated temperatures downstream		NA

Waterbody ID	Code	Waterbody Name	Altered Use(s)	Problem	Status	Compliance Year
	L02	Townshend Reservoir (Townshend)	AH, ALS	Water level fluctuation alters aquatic habitat	USACE dam; no conservation flow based on any biological/wq criteria	NA
VT11-16	02	Mill Brook (1.6 Miles)	ALS	Artificial & insufficient flow below Bromley Snowmaking water withdrawal	Partial support 1.6 mi (8 mi total length)	NA
	03	Trib to Mill Brook (2.2 Miles)	ALS	Artificial & insufficient flow below Bromley Snowmaking water withdrawal	Non-support 0.7 mi, partial support 1.5 mi (2.5 mi total length).	NA
VT11-18	L01	Hapgood Pond (Peru)	AH, ALS	Annual drawdowns alter aquatic habitat		NA
VT12-01	01	Lower Deerfield River Below Harriman Reservoir (3.5 Miles)	ALS	Low temperature hypolimnetic water release from reservoir affect fishery	401 certification issued (1/95); FERC license issued (4/97); DFW evaluating the effects of release.	NA
VT12-05	07	Cold Brook (0.58 Miles)	ALS	Artificial & insufficient flow below Hermitage snowmaking withdrawal	Compliance schedule established as part of act 250 process to bring the withdrawal into compliance	NA
VT13-01	01	CT River, Wilder Dam to Ascutney Village	ALS	Artificial flow condition, fluctuating flows associated with hydropower production	FERC license expires in 2018	2022
VT13-02	02	Upper Mid-Southern Connecticut River	AES, ALS			NA
	01	Connecticut River Above Bellow Falls Dam in Springfield	AES, ALS	Water level fluctuation at dam; dewatered shorelines/wetlands; unstable/eroding streambanks	Observed impacts to "Skitchewaug" archaeological site; site rip-rapped; FERC license expires in 2018	2022
	02	Connecticut River Above Bellow Falls Dam to Hoyts Landing Area, Rockingham	ALS	Water level fluctuation at dam; dewatered shorelines/wetlands	FERC license expires in 2018	2022
	03	CT River, Hoyts Landing	ALS	Water level fluctuation at dam; dewatered shorelines/wetlands	FERC license expires in 2018	2022
VT13-03	03	CT River, Below Bellows Falls Dam	ALS	Artificial flow condition, fluctuating flows by hydropower production	FERC license expires in 2018	2022

Waterbody ID	Code	Waterbody Name	Altered Use(s)	Problem	Status	Compliance Year
VT13-04	04	Vernon Impoundment	ALS	Water level fluctuation at dam; dewatered shoreline/wetlands	FERC license expires in 2018	2022
VT13-05	05	Lower Connecticut River, Below Vernon Dam	ALS	Artificial flow condition, fluctuating flows by hydropower production	FERC license expires in 2018	2022
VT13-10	02	Ellis Brook, Farr (?) Brook Below Minards Pond	ALS	Possible lack of minimum flow below water supply withdrawal point (threat)	WSID #5298 - Bellows Falls Water Department	NA
VT14-04	01	Waits River, Below Bradford Dam (0.3 Mile)	AES, ALS	Artificial flow condition, poor flow regime in dam's bypass segment	FERC exemption	2022
VT14-07	01	Wells River, Below Dam at Boltonville (0.4 Mi)	AES, ALS, RB	Artificial flow condition, poor flow and physical alterations in hydroelectric dam bypass segment	FERC exemption	2024
VT14-09	01	South Peacham Brook and Stevens River below Harveys Lake	ALS	Dam management alters aquatic biota	Town is working with NGO and consultants on feasibility analysis of dam removal	NA
	L05	Harveys Lake (Barnet)	AH, ALS	Water level management may alter aquatic habitat	Town is working towards dam removal and placement of weir to stabilize water level	NA
VT15-01	02	Passumpsic River, Below Great Falls Dam (0.1 Miles)	ALS	Artificial flow regime and condition by hydroelectric operations; alters aquatic biota in bypass reach	DEC issued 401 November 2019; increasing bypass flow from 10 cfs to 62 cfs; FERC license still pending.	2019
VT16-07	01	Connecticut River, Above Wilder Dam	ALS	Reservoir water level fluctuation at dam; unstable/eroding streambanks upstream	Exposure & erosion archeological features known as "long houses" and "stocking" site	2022
	02	Connecticut River, Above Wilder Dam to Bradford (Approx 30 Miles)	ALS	Reservoir water level fluctuation at dam; unstable/eroding streambanks upstream	Exposure & erosion archeological features known as "long houses" and "stocking" site	2022

Waterbody ID	Code	Waterbody Name	Altered Use(s)	Problem	Status	Compliance Year
VT17-01	L01	Lake Memphremagog	AH, ALS	Water level fluctuation by hydroelectric facility may alter aquatic habitat and dewater wetlands and shoreline	DEC is a party to regular meetings which includes international joint commission, Canadian environmental regulatory authorities and municipalities to discuss ways to improve the water quality of the lake	NA
VT17-03	01	Coaticook River Below Norton Pond Dam (3 Miles)	ALS	Artificial flow condition by hydroelectric facility creates poor flow regime	ANR, Coaticook, and other parites are in settlement discussions	2020
	02	Averill Creek Downstream from Dam on Great Averill Lake (5.4 Miles)	ALS	Artificial flow condition by hydroelectric facility creates poor flow regime	ANR, Coaticook, and other parites are in settlement discussions	2020
	03	Averill Creek Downstream from Dam on Little Averill Lake (1 Mile)	ALS	Artificial flow condition by hydroelectric facility creates poor flow regime	ANR, Coaticook, and other parites are in settlement discussions	2020
	L01	Little Averill Pond (Averill)	AH, ALS, RF	Water level fluctuation by hydroelectric facility alters fishery, recreation & endangered species	ANR, Coaticook, and other parites are in settlement discussions	2020
	L02	Great Averill Pond (Norton)	AH, ALS, RF	Water level fluctuation by hydroelectric facility alters aquatic habitat, recreation	ANR, Coaticook, and other parites are in settlement discussions	2020
	L04	Norton Pond (Norton)	AES, AH, ALS, RB	Water level fluctation by hydroelectric facility alters aquatic habitat, recreation, aesthetics	ANR, Coaticook, and other parites are in settlement discussions	2020
VT17-05	01	Unnamed Brooks, Tribs to Clyde River	ALS	Possible lack of minimum flow below water supply withdrawal point	WSID #5105; Brighton	NA
VT17-08	L03	Shadow Lake (Glover)	AES, AH, ALS	Water level fluctuation (seasonal drawdown) may alter aquatic habitat and aesthetics		2020