

STATE OF VERMONT

2022

LIST OF PRIORITY SURFACE WATERS

**PART B. IMPAIRED WATERS - NO TOTAL MAXIMUM DAILY
LOAD DETERMINATION REQUIRED**

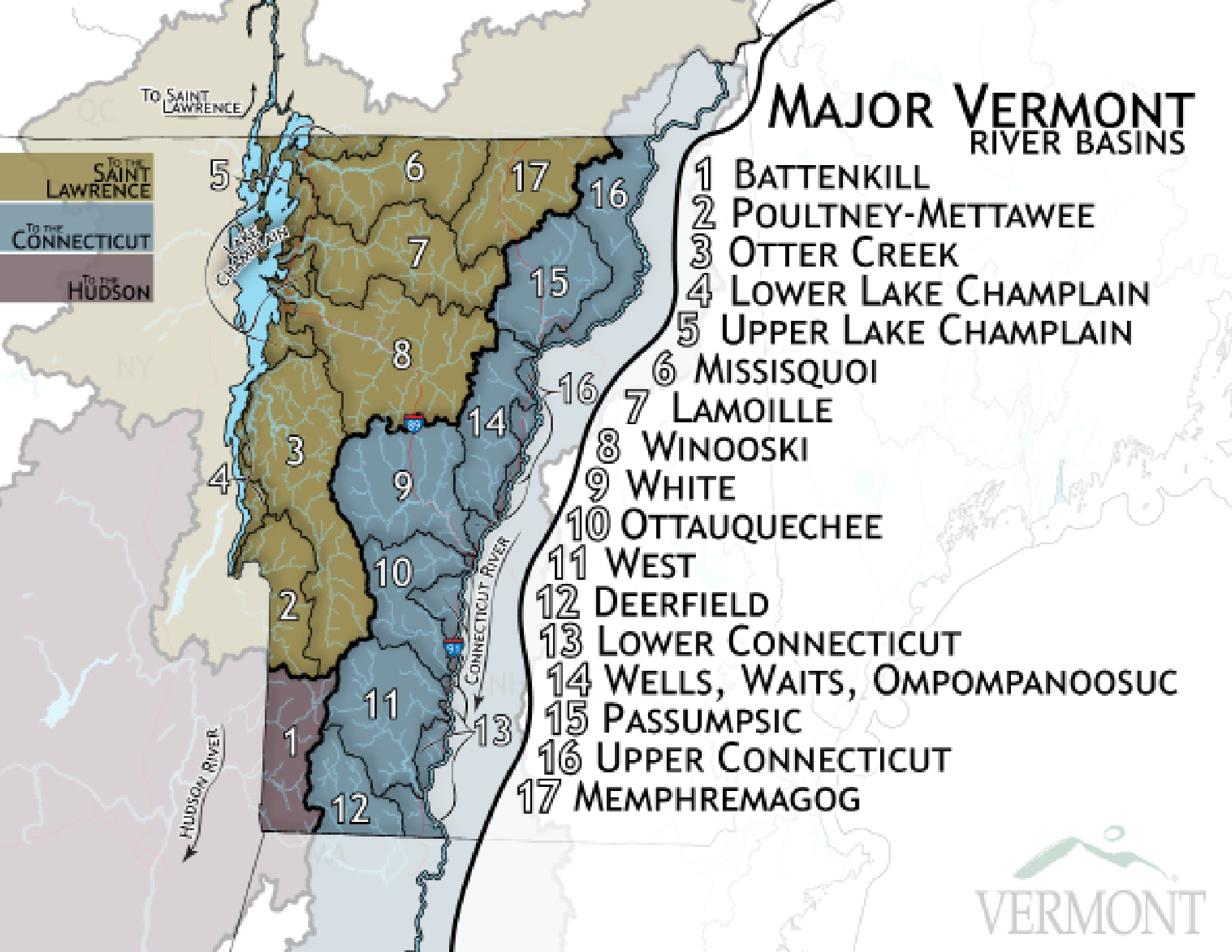
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**Vermont Department of Environmental Conservation
Watershed Management Division
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MAJOR VERMONT RIVER BASINS



- 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, OMPOMANOOSUC
- 15 PASSUMPSIC
- 16 UPPER CONNECTICUT
- 17 MEMPHREMAGOG

Waters appearing below have documentation and data indicating impairment and do not meet VT Water Quality Standards. However, according to US EPA Listing Guidance, these waters do not require a TMDL because other pollution control requirements by local, state, or federal authority are stringent enough to implement any water quality standard (WQS) applicable to such waters.

- 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	Impaired Use(s)	Pollutant	Problem
VT05-10	L01	Burlington Bay Barge Canal - Lake Champlain (Burlington)	AH, ALS, CR, RB	TOLUENE, XYLENE	Contamination from coal tar in sediments of Pine Street Barge Canal (SITE #770042)

No TMDL is necessary for this impairment as authority and legal means are available and in place to address the source of impairment. The authority and legal means that are available to DEC and the US EPA are considered sufficient to attain Water Quality Standards in the future. DEC authority is under 10 VSA 6603 and 6610a. US EPA authority is CERCLA (42 USC section 9601 - 9675).

The Pine Street Barge Canal Coordinating Council (PSBC Council) is overseeing implementation of the May 1998 Cleanup Plan. Cleanup Plan was reviewed and approved by EPA. Personnel from DEC's Hazardous Materials Division participate with and serve on the Council.

This is an EPA Superfund site designated under CERCLA. There are legal requirements in place that apply to the source of the pollutants contributing to the impairment. The performance standards identified in the Statement of Work are sufficient to remediate the problem and are consistent with VT Water Quality Standards when implementation of the remediation/clean-up plan is complete.

The required "Five Year Review Report for the Pine Street Canal Superfund Site Burlington Vermont" (FYR) was produced and published by USEPA December 21, 2021 that describes the past and current conditions of various indicators of interest as related to this impairment listing. The FYR indicates: "EPA has determined, as part of the third five-year review, that the remedy at the Pine Street Canal Superfund Site is protective of human health and the environment. All construction activities specified in the 1998 ROD (Record of Decision), 2009 ESD (Explanation of Significant Differences) and 2011 ESD are complete and operating as intended. Ecological, human health and management of migration RAOs (Remedial Action Objectives) are being met. The Performing Defendants continue to perform compliance monitoring and O&M (Operation and Maintenance) and report the results to EPA and VTDEC twice a year."

DEC considers this substantial progress towards WQS compliance. However, the Department needs more time for a complete assessment of water quality before any move to delist is initiated. Furthermore, to allow complete transparency for any listing action to occur, DEC prefers that a complete public notice and comment period occur prior to action.

VT06-08	07	South Mountain Branch, Tributary #3 (Mouth To Rm 0.5)	ALS	SEDIMENTATION/SILTATION	Erosion from parking areas and on- mountain activities.
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No TMDL is necessary as DEC has the authority and legal means available to eliminate the sources causing this impairment. The authority and legal means that are available to DEC are sufficient to attain WQS and enable DEC to utilize enforcement authority as it exists under 10 VSA 1272.

The South Mountain Branch is a tributary Jay Branch and is located in the town of Jay. The streams within the watershed are managed as Class B waters, with cold water fishery. South Mountain Branch, Tributary #3 enters the South Mountain Branch at about RM 2.3, and drains the south side of Jay Peak mountain and portions of the Stateside lodge and parking area.

Based on biomonitoring conducted by Jay Peak Resort (JPR) and VTDEC that was initiated in 2011, Tributary #3 to South Mountain Branch shows noncompliance with VTWQS biocriteria. Indications from habitat assessments and water quality monitoring, impacts due to sediment appear to be the primary stressor. As reported in the 2012 update of the water quality remediation plan prepared for JPR, multiple problematic sediment sources have been identified as potential sites for remedial measures.

VTDEC issued a follow-up §1272 Order in 2014 to have JPR revisit the original WQRP and identify, prioritize and implement an additional suite of remedial actions to be completed in two years. Additionally, as a result of private party appeals of several stormwater permits in 2014, JPR entered into a settlement agreement that establishes WQS compliance dates with interim targets, a mechanism by which additional BMPs are implemented and a monitoring plan.

Watershed BMP implementation has continued in this watershed over the past several years, but the biomonitoring conducted in 2016-2019 failed to show compliance with the VTWQS. However, in 2020, results for all eight biocriteria metrics were within the established thresholds for meeting Class B(2) criteria, indicating the first year the station has reached attainment for all metrics since sampling began in 2012. Progressively larger BMPs have been installed in this watershed over the past several years, including a large sediment trap that collects sediment from a large dirt parking lot adjacent to the stream. Because this BMP was installed at the end of summer 2018, the sediment reduction that it provides would not have been significantly represented in the biomonitoring results for 2018 and 2019. However, the improved physical and biological conditions demonstrated in the downstream reach reflect the sediment reductions provided by this BMP over the two years since it was installed. Jay Peak Resort is also working collaboratively with VTrans in identifying additional sediment controlling BMPs along the Rt. 242 corridor. According to the WQRP, large-scale BMPs will be scheduled to be implemented in the watershed and biomonitoring will continue for the next several years to track the stream condition.

VT07-01	01	Lamoille River, Route 2 To Arrowhead Mountain Lake	ALS	DISSOLVED OXYGEN	Three dams (Clarks, Milton, Peterson) create dissolved oxygen problems downstream.
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No TMDL is necessary for this impaired segment as DEC has the authority and legal means available to address the dissolved oxygen (D.O.) problem found below the Clarks Falls hydroelectric facility. The authority and legal means that are available to DEC are sufficient to attain Water Quality Standards in the near future.

A new federal license for the Lamoille River Hydroelectric Project was issued in June 2005. Articles 407 and 408 address post-licensing water quality monitoring and D.O. enhancement, respectively. The new license provides for conservation flows that may improve the D.O. regime sufficiently to obviate the need for specific mechanical enhancements, such as turbine aspiration. FERC approved the licensee’s water quality monitoring and dissolved oxygen enhancement plan on December 5, 2006, although the licensee elected to initiate sampling in Summer 2006. Because of higher than normal flows in 2006, sampling continued in 2007. Conditions were again somewhat atypical in 2007 because the Milton Station was off line, resulting in highly reoxygenated flows entering Peterson impoundment. Consequently, the Department has asked CVPS to continue sampling in summer 2008 before it determines whether there is sufficient data to conclude that the post-licensing operational changes have achieved compliance with the Water Quality Standards. If the data indicates that standards are not being met, the licensee must propose and implement enhancement measures.

Dissolved oxygen data will be collected to determine if the aeration modification made at the dam is sufficient to comply with the appropriate water quality standards. Data and assessment listing decisions will be provided during the 2024 assessment cycle.

VT11-15	06	No. Branch, Ball Mtn Brook, Stratton Lake To Kidder Brook AES	MANGANESE	Contributions/releases of reduced Manganese from reservoir sediment coats stream substrate.
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Conditions created by the installed diversion around the pond have resulted in an elimination of the problematic Mn discharge. Staining of the substrate is no longer occurring. Historical staining from previous Mn discharge remains but no further remediation actions are necessary or planned. This site will be revisited and reassessed during the 2024 listing cycle. Since the impairment is no longer ongoing (the source of manganese has been addressed), delisting is likely in 2024.