STATE OF VERMONT

2020

LIST OF PRIORITY SURFACE WATERS

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

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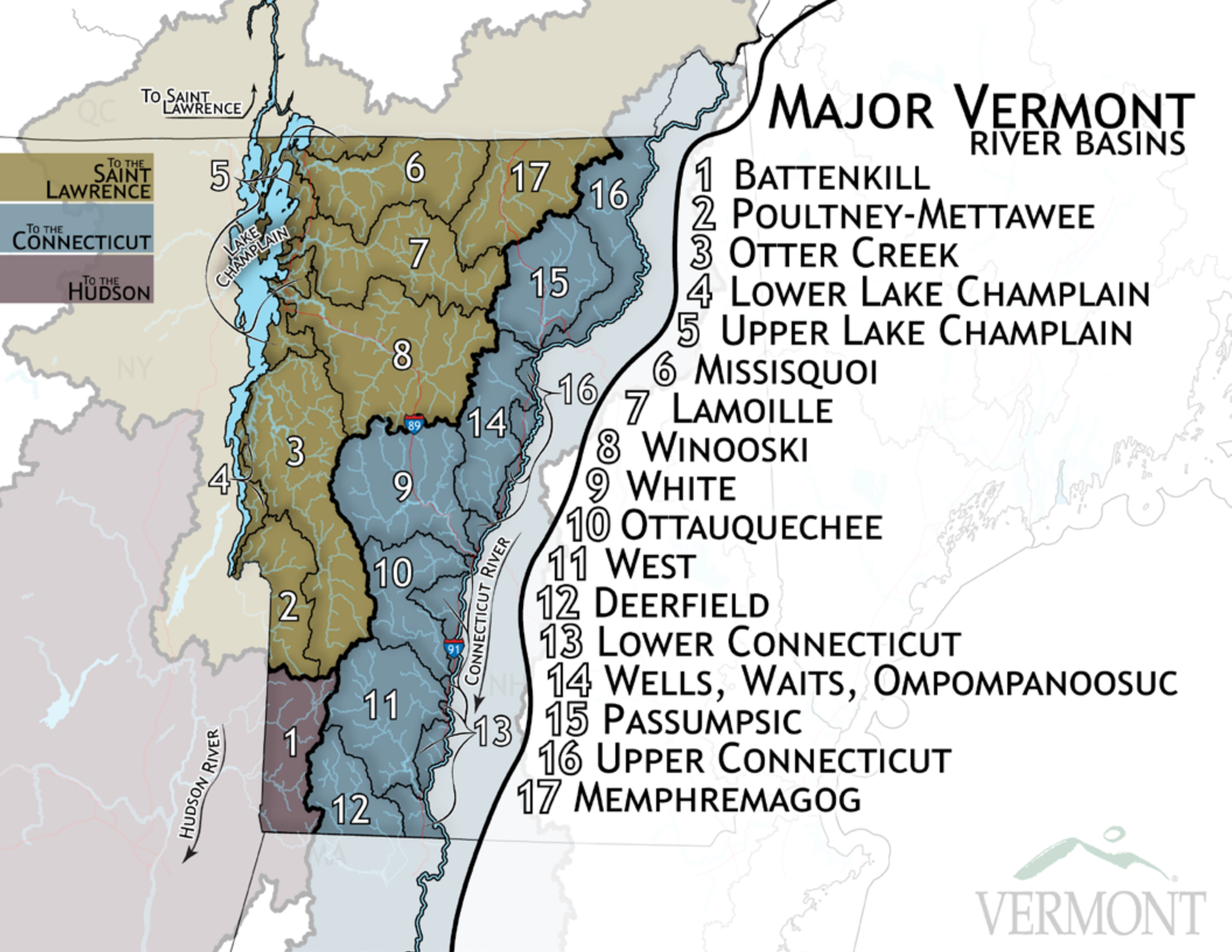
To Saint Lawrence
To the Saint Lawrence
To the Connecticut
To the Hudson
Lake Champlain
Connecticut River
Hudson River
QC
NY
NH
ME
VERMONT
Major Vermont
River Basins
1 Battenkill
2 Poultney-Mettawee
3 Otter Creek
4 Lower Lake Champlain
5 Upper Lake Champlain
6 Missisquoi
7 Lamoille
8 Winooski
9 White
10 Ottauquechee
11 West
12 Deerfield
13 Lower Connecticut
14 Wells, Waits, Ompompanoosuc
15 Passumpsic
16 Upper Connecticut
17 Memphremagog

Waters appearing 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 - Lake Champlain (Burlington)	AH, ALS, CR, CR2	TOLUENE, XYLENE	Contamination from coal tar in sediments of Pine st 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.

An extensive water quality monitoring plan is in-place to track effectiveness of pollution controls implemented and compliance with VT Water Quality Standards. Monitoring efforts are ongoing on several fronts to track the concentration and potential movement of site contaminants.

Waterbody ID	Code	Waterbody Name	Impaired Use(s)	Pollutant	Problem
VT06-08	07	South Mountain Branch, Tributary #3 (Mouth To Rm 0.5)	ALS	SEDIMENTATION/SILTATION	Erosion from parking areas and on-mountain activities

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 2018 failed to show compliance with the VTWQS. Tributary #3 to South Mountain Branch continues to remain impaired. 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. Since this BMP was installed in late 2018, the impact to the stream has yet to be determined. 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.

Waterbody ID	Code	Waterbody Name	Impaired Use(s)	Pollutant	Problem
VT07-01	01	Lamoille River, Mouth To Clarks Falls Dam (8.5 Miles)	ALS	DISSOLVED OXYGEN	3 dams (clarks, milton, peterson) create d.o. Problems downstream

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.

Currently, sufficient data has not been collected to make a final WQS determination; however, the operational changes have occurred to address the potential low dissolved oxygen condition.

Waterbody ID	Code	Waterbody Name	Impaired Use(s)	Pollutant	Problem
VT08-02	07	Unnamed Trib To Winooski River	ALS	IRON, ARSENIC	So. Burlington landfill leachate entering surface water

No TMDL is necessary for this impairment as DEC has the authority and legal means available to address the source causing this particular impairment. The authority and legal means that are available to DEC are sufficient to attain Water Quality Standards.

This is a small stream that is pumped around the South Burlington Landfill. Leachate-contaminated seeps at the base of the landfill have in the past drained into a wetland area connected to the stream. Currently, curtain drains are in place and leachate is pumped, collected and transported to a permitted wastewater treatment facility. The landfill facility was ordered by DEC to be closed with capping. Capping occurred in 1992.

The facility has a post-closure court order requiring water quality monitoring and maintenance of the site. Water quality sampling is conducted semiannually to determine effectiveness of treatment. Water quality improvement is expected over time as water quality treatment and site management continues. Through 2019, surface water quality sampling locations indicate that occasionally iron concentrations remain above the VTWQS for the protection of aquatic biota. An added frequency of monitoring may be necessary to verify impairment.

Waterbody ID	Code	Waterbody Name	Impaired Use(s)	Pollutant	Problem
VT08-08	01	Muddy Brook (0.1 Mile)	ALS	CADMIUM, IRON	CV landfill: leachate entering surface water

No TMDL is necessary for this impairment as DEC has the authority and legal means available to address the source causing this particular impairment. The authority and legal means available to DEC are sufficient to attain Water Quality Standards and have been implemented. This is a small stream that flows around the Central Vermont Landfill. Until summer 2001, leachate had entered the stream from seeps located along the side slopes of the landfill. The Landfill was ordered by DEC to be closed and capped in 1993. Due to the slumping of the capping soils in 2001, the original clay cap was removed, the landfill was re-graded and a synthetic cap was installed along with a new toe drain and gas collection system. The landfill facility has a post-closure court order requiring water quality monitoring and maintenance of the site.

Currently the amount of water collected in the drains is significantly less than previously reported. Through 2019, surface water quality sampling locations indicate that occasionally iron concentrations remain above the VTWQS for the protection of aquatic biota. An added frequency of monitoring may be necessary to verify impairment.

Waterbody ID	Code	Waterbody Name	Impaired Use(s)	Pollutant	Problem
VT08-12	04	West Branch Little River, Rm 7.5 To 8.0	ALS	CAUSE UNKNOWN	Impacts to macroinvertebrate community: potential sources include: hydrologic modification, sediment, low pH

No TMDL is necessary for this impairment as VTDEC has the authority and legal means available to address the source causing this particular impairment. The authority and legal means that are available to DEC are sufficient to attain Water Quality Standards. The mid-upper reaches of the West Branch Little River, located in the town of Stowe, Vermont, is a small, cold water, Class B stream and drains the eastern reaches of Mt Mansfield. Much of the mid-upper reaches of the stream receive, either directly or through tributaries, runoff from the developed areas of the Stowe Mountain Resort (SMR).

The Agency placed the reach between rivermile (RM) 7.5 and 8.0 of West Branch Little River on Part C of the 2002 Vermont List of Priority Waters, thereby identifying it as in need of further assessment to determine compliance with the VTWQS. The site has been re-evaluated with each subsequent biennial listing cycle, with consistently marginal attainment. In 2012, based on biomonitoring data collected between 2008 - 2011, the Agency determined that the West Branch Little River from RM7.5 to RM8.0 was no longer in compliance with the VTWQS for aquatic life support due to undefined stresses.

Through comments submitted during the draft 303(d) List comment period, SMR proposed it take a series of steps to: 1) investigate potential sources contributing to the impairment, 2) develop and prioritize actions to remediate the problematic areas, and 3) implement the necessary actions to remediate the water quality impairment. On May 3, 2012, DEC issued an order pursuant to 10 V.S.A. §1272 ordering SMR to: 1) by May 30, 2012, conduct a field investigation, develop or improve existing hydrologic models and submit recommendations to eliminate the identified impairment, and 2) by September 30, 2012, complete approved remediation measures and submit proposed monitoring plan for approval.

The most recent assessment data for this segment is from monitoring that occurred in 2018. According to those biomonitoring data at sites RM 7.4 and RM 8.0, both currently show compliance with the VTWQS. These are the two sites that are used for compliance monitoring for this reach. Note that site RM7.4 has replaced site RM7.5 since 2016. Site RM 7.4 has been in compliance with the VTWQS biocriteria from 2016 – to 2018, showing a consistent pattern of “Good” biological conditions. Site RM 8.0 met the biocritia standards in 2018 for the first time since 2014 with a “Good” assessment rating. Annual monitoring will continue at these locations, and with continued and sustained improvement, the site may be considered for delisting and be assessed as in compliance with the VTWQS.

Waterbody ID	Code	Waterbody Name	Impaired Use(s)	Pollutant	Problem
VT11-15	06	No. Branch, Ball Mtn Brook, Stratton Lake To Kidder Brook	AES	MANGANESE	Contributions/releases of reduced mn from reservoir sediment coating stream substrate.

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.