

# STATE OF VERMONT

2016

**-FINAL-**

## LIST OF PRIORITY SURFACE WATERS

### **PART E. SURFACE WATERS ALTERED BY INVASIVE AQUATIC SPECIES**

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## Overview

Waters appearing in **Part E** are assessed as “altered.” They represent situations to be given priority for management where aquatic habitat and/or other designated uses are not supported due to the presence of invasive aquatic species. These waters correspond to Category 4c of EPA’s Consolidated Assessment Listing Methodology.

## Explanation of Column Headings

Waterbody ID - An alphanumeric code used to spatially locate designated surface waterbodies. For example, VT01-02 and VT01-03L05 represent a river and a lake waterbody, respectively, which are located in Vermont river basin #01. There are 17 river basins for planning purposes identified in Vermont. A statewide map has been included that names these 17 river basins and identifies their approximate boundaries.

Segment Name/Description - The name of the river/stream segment or lake/pond.

Use(s) Impacted - An indication of which designated or existing uses are impacted by invasive aquatic species. The following conventions are used to represent a specific use:

AES - aesthetics

ALS or AH - aquatic life (biota and/or habitat) support

2CR - secondary contact recreation (fishing, boating)

FC - fish consumption

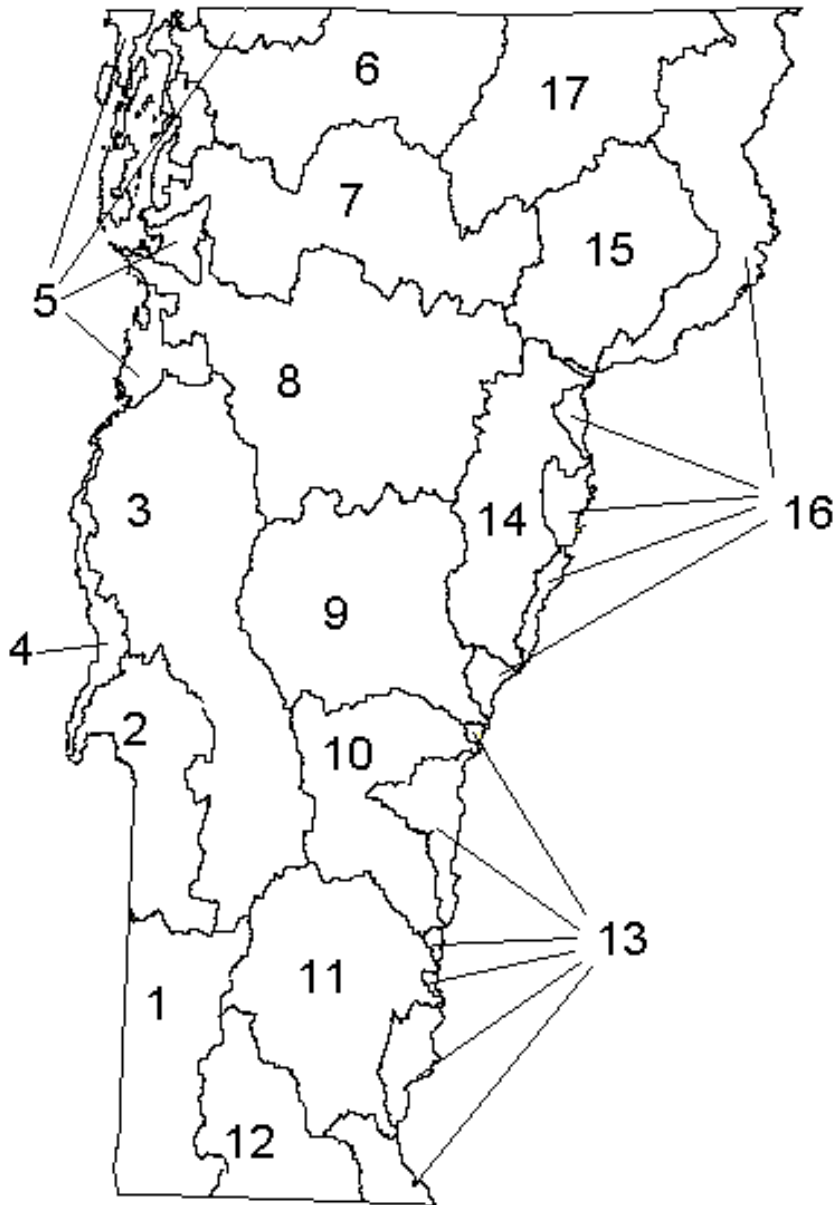
DWS - drinking water supply

CR - contact recreation (i.e. swimming)

Surface Water Quality Problem - A brief description of the type of invasive aquatic species affecting the segment.

Current Status/Management or Control Activity - An indication of the current status of the problem and/or any recent or on-going management or control efforts.

## 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, Ompompanoosic
15. Passumpsic
16. Upper Connecticut
17. Lake Memphremagog

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<b>Waterbody ID</b>	<b>Segment Name/ Description</b>	<b>Use(s) Impacted</b>	<b>Surface Water Quality Problem</b>	<b>Current Status/Management or Control Activity</b>
VT01-03L05	LAKE PARAN (Bennington)	AES, ALS, CR, 2CR	LOCALLY ABUNDANT EURASIAN WATERMILFOIL GROWTH	WEEVIL PRESENT; NOTED NATURAL MILFOIL DECLINE IN 1991
VT02-01	DISCRETE AREAS OF LOWER POULTNEY RIVER	AES, ALS, CR, 2CR	LOCALLY ABUNDANT WATER CHESTNUT GROWTH	HANDPULLING ONGOING SINCE 1998 BY TNC
VT02-01L01	COGGMAN POND (West Haven)	AES, ALS, CR, 2CR	LOCALLY ABUNDANT EURASIAN WATERMILFOIL GROWTH	POPULATION CONFIRMED IN 1998
		AES, ALS, CR, 2CR	WATER CHESTNUT INFESTATION	CONFIRMED POPULATION IN 1998; VTDEC/TNC HANDPULLING ONGOING SINCE 1999; POPULATION SPIKED IN 2012 POST-T.S. IRENE
VT02-02L05	LAKE HORTONIA (Hubbardton)	AES, ALS, CR, 2CR	LOCALLY ABUNDANT EURASIAN WATERMILFOIL GROWTH	POPULATION CONFIRMED IN 1984; WEEVIL PRESENT; HERBICIDE TREATMENTS 2000, 2004 AND 2010 (SONAR), 2006-2008 (RENOVATE) AND NON-CHEM FOLLOWUP
VT02-02L06	BLACK POND (Hubbardton)	AES, ALS, CR, 2CR	LOCALLY ABUNDANT EURASIAN WATERMILFOIL GROWTH	POPULATION CONFIRMED IN 1987; WEEVIL PRESENT; WEEVIL AUGMENTATION 1997-2000 (MIDDLEBURY COLLEGE)
VT02-03	CASTLETON RIVER	AES, ALS, CR, 2CR	LOCALLY ABUNDANT EURASIAN WATERMILFOIL	NO CONTROL
VT02-03L05	LAKE BOMOSEEN (Castleton)	AES, ALS, CR, 2CR	LOCALLY ABUNDANT EURASIAN WATERMILFOIL GROWTH	POPULATION CONFIRMED IN 1982; WEEVIL PRESENT; WEEVIL AUGMENTATION (93, 94, 97); 1997 AND 2001 MILFOIL DECLINES OF UNKNOWN CAUSE
		ALS, CR	ZEBRA MUSSEL INFESTATION	ZM POPULATION DISCOVERED IN 1999; FIRST WATER INTAKE LINE CLOGGED IN LATE 2001; ADULTS COMMON THRUOUT MOST OF LAKE IN 2005
VT02-03L06	GLEN LAKE (Castleton)	AES, ALS, CR, 2CR	ABUNDANT EURASIAN WATERMILFOIL GROWTH	POPULATION CONFIRMED IN 1983; WEEVIL PRESENT; NOTED NATURAL MILFOIL DECLINE IN 1992; WSMD WEEVIL HARVEST IN 1999-2013; MIDDLEBURY COLLEGE WEEVIL HARVEST IN 2005 AND 2006
VT02-05L03	LAKE ST. CATHERINE (Wells)	AES, ALS, CR, 2CR	LOCALLY ABUNDANT EURASIAN WATERMILFOIL GROWTH	POPULATION CONFIRMED IN 1983; WEEVIL PRESENT; HERBICIDE TREATMENTS 2004 (SONAR), 2006-2013 (RENOVATE) AND NON-CHEM FOLLOWUP
VT03-04	LEICESTER RIVER	AES, ALS, CR, 2CR	LOCALLY ABUNDANT EURASIAN WATERMILFOIL	LIMITED LOCAL HAND PULLING

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VT03-04L04	FERN LAKE (Leicester)	AES, ALS, CR, 2CR	EURASIAN WATERMILFOIL	POPULATION CONFIRMED 1996. LOCALLY ABUNDANT GROWTH. WEEVILS STOCKED 2014. ONGOING NON-CHEMICAL CONTROLS. HERBICIDE RENOVATE PROPOSED FOR 2016.
VT03-04L05	LAKE DUNMORE (Salisbury)	AES, ALS, CR, 2CR	EURASIAN WATERMILFOIL	POPULATION CONFIRMED 1989. LOCALLY ABUNDANT GROWTH. ONGOING NON-CHEMICAL CONTROLS. HERBICIDE RENOVATE IS PROPOSED FOR 2016.
VT03-06L01	BEAVER POND (Proctor)	AES, ALS, CR, 2CR	DENSE EURASIAN WATERMILFOIL GROWTH IN MOST SHORELINE AREAS	POPULATION CONFIRMED IN 2000; WEEVIL PRESENT; NO CONTROL ACTIVITIES
VT03-07L01	VERGENNES WATERSHED (Bristol)	AES, ALS, CR, 2CR	DENSE EURASIAN WATERMILFOIL GROWTH IN MOST SHORELINE AREAS	POPULATION CONFIRMED IN 1985; WEEVIL INTRODUCED 93-94 (WSMD and MIDDLEBURY COLLEGE); LIMITED EXPERIMENTAL INTRO - POOR RESPONSE; NO FURTHER CONTROL ACTIVITIES
VT03-08L02	CEDAR LAKE (MONKTON POND) (Monkton)	AES, ALS, CR, 2CR	LOCALLY ABUNDANT EURASIAN WATERMILFOIL GROWTH	POPULATION CONFIRMED IN 1990; WEEVIL PRESENT; WEEVIL AUGMENT'N 97-98 (MIDDLEBURY COLLEGE) and 2008 (CITIZEN); NOTED NATURAL MILFOIL DECLINE IN 1997, RETURNED TO MODERATE IN 2000
VT03-10L01	RICHVILLE POND (Shoreham)	AES, ALS, CR, 2CR	DENSE EURASIAN WATERMILFOIL GROWTH IN MOST SHORELINE AREAS	POPULATION CONFIRMED IN 1998; NO CONTROL ACTIVITIES
VT03-15L01	CHIPMAN LAKE (TINMOUTH POND) (Tinnmouth)	AES, ALS, CR, 2CR	LOCALLY ABUNDANT EURASIAN WATERMILFOIL GROWTH	POPULATION CONFIRMED IN 1988; WEEVIL PRESENT; ONGOING LOCAL NON-CHEMICAL CONTROL PROGRAM; SOLARBEE INSTALLED IN 2006 AS EXPERIMENTAL CONTROL FOR EWM
VT03-17L01	STAR LAKE (Mount Holly)	AES, ALS, CR, 2CR	LOCALLY ABUNDANT EURASIAN WATERMILFOIL GROWTH	POPULATION CONFIRMED IN 1987; WEEVIL PRESENT; HERBICIDE TREATMENTS 2004 AND 2011 (SONAR), 2007 (RENOVATE); SWITCHED TO MECHANICAL HARVESTING IN 2012
VT04-01L01	OTTER CREEK SECTION - LAKE CHAMPLAIN (Ferrisburg)	AES, ALS, CR, 2CR	WATER CHESTNUT INFESTATION	MULTIPLE LOCATIONS; ALL LOCATIONS (6) UNDER MANAGEMENT BY HAND HARVEST. POPULATIONS VARY; LOCALLY ABUNDANT TO SCATTERED
		AES, ALS, CR, 2CR	EURASIAN WATERMILFOIL INFESTATION	WEEVILS PRESENT IN LAKE CHAMPLAIN
		ALS, CR	ZEBRA MUSSEL INFESTATION	CHAMPLAIN II & DIAMOND ISL STONE BOAT WRECKS COVERED; NATIVE MUSSELS MOSTLY EXTIRPATED; NEARLY ALL SUITABLE SUBSTRATE COVERED

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VT04-01L02	PORT HENRY SECTION - LAKE CHAMPLAIN (Ferrisburg)	ALS, CR, DWS	ZEBRA MUSSEL INFESTATION	FIRST CONFIRMED IN LAKE CHAMPLAIN IN 1988, LOCALLY ABUNDANT POPULATION. NO MANAGEMENT. MONITORING BY VTDEC/NYSDEC LAKE CHAMPLAIN LONG-TERM MONITORING PROGRAM
		AES, ALS, CR, 2CR	EURASIAN WATERMILFOIL INFESTATION	WEEVILS PRESENT IN LAKE CHAMPLAIN
VT04-02	LOWER WHITNEY CREEK	AES, ALS, CR, 2CR	LOCALLY ABUNDANT EURASIAN WATERMILFOIL	NO CONTROL
VT04-02L01	SOUTHERN SECTION - LAKE CHAMPLAIN (Bridport)	AES, ALS, CR, 2CR	EURASIAN WATERMILFOIL INFESTATION	WEEVILS PRESENT IN LAKE CHAMPLAIN
		ALS, CR	ZEBRA MUSSEL INFESTATION	NEARLY ALL SUITABLE SUBSTRATE COVERED; EXPANDING ONTO SOFT SUBSTRATE; NATIVE MUSSELS MOSTLY EXTIRPATED
		AES, ALS, CR, 2CR	DENSE WATER CHESTNUT GROWTH	ONGOING VTDEC HARVESTING WITH SIGNIFICANT CONTROL PROGRAMS; NORTHWARD EXPANSION HALTED IN 1999; 2010 CONTROL EFFORTS HIT "NARROWS OF DRESDEN" - A FIRST IN PROGRAM HISTORY
VT04-03	EAST CREEK, ORWELL	AES, ALS, CR, 2CR	LOCALLY ABUNDANT WATER CHESTNUT GROWTH	HANDPULLING ONGOING BY TNC/VTDEC
	SOUTH FORK OF EAST CREEK, ORWELL	AES, ALS, CR, 2CR	LOCALLY ABUNDANT WATER CHESTNUT GROWTH	HANDPULLING ONGOING BY TNC/VTDEC
VT05-01L01	MISSISQUOI BAY - LAKE CHAMPLAIN (Alburg)	ALS, CR	ZEBRA MUSSEL INFESTATION	ADULT ZEBRA MUSSELS FOUND AT BRIDGE (1998). ADULTS FOUND N. OF BRIDGE, W. OF MISSISQUOI R. (2004-2005), THROUGHOUT BAY IN 2007
		AES, ALS, CR, 2CR	EURASIAN WATERMILFOIL INFESTATION	WEEVILS PRESENT IN LAKE CHAMPLAIN
	AES, ALS, CR, 2CR	LOCALLY ABUNDANT VARIABLE-LEAVED WATERMILFOIL POPULATION	POPULATION CONFIRMED IN 2008, LOCATED MOSTLY WITHIN MNWR. HANDPULLING BY VTDEC; POPULATION SPIKED IN 2012 POST T.S. IRENE	
	MISSISQUOI BAY- LAKE CHAMPLAIN (Alburg)	AES, ALS, CR, 2CR	LOCALLY ABUNDANT WATER CHESTNUT GROWTH	CONFIRMED 2005 AND LOCATED MOSTLY IN MNWR; HANDPULLING ONGOING BY VTDEC, MNWR AND OTHERS; POPULATION SPIKED IN 2012 POST T.S. IRENE

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VT05-04L01	NORTHEAST ARM - LAKE CHAMPLAIN (Swanton)	AES, ALS, CR, 2CR	EURASIAN WATERMILFOIL INFESTATION	WEEVILS PRESENT IN LAKE CHAMPLAIN; WEEVILS INTRODUCED INTO PELOTS BAY IN 1999 AND 2000; LOCAL MECHANICAL HARVESTING ONGOING IN PELOTS BAY
		ALS, CR, DWS	ZEBRA MUSSEL INFESTATION	ADULT ZEBRA MUSSELS EXPANDING RAPIDLY
VT05-04L02	ISLE LAMOTTE - LAKE CHAMPLAIN (Alburg)	ALS, CR, DWS	ZEBRA MUSSEL INFESTATION	NEARLY ALL SUITABLE SUBSTRATE COVERED; EXPANDING ONTO SOFT SUBSTRATE; NATIVE MUSSELS MOSTLY EXTIRPATED
		AES, ALS, CR, 2CR	EURASIAN WATERMILFOIL INFESTATION IN SOME NEAR SHORE AREAS	WEEVILS PRESENT IN LAKE CHAMPLAIN
VT05-07L01	ST. ALBANS BAY - LAKE CHAMPLAIN (St. Albans)	ALS, CR	ZEBRA MUSSEL INFESTATION	ADULT ZEBRA MUSSELS EXPANDING RAPIDLY
		AES, ALS, CR, 2CR	EURASIAN WATERMILFOIL INFESTATION	HARVESTING IN PAST AND AGAIN IN 2005; LOCAL HARVESTING PLUS NUISANCE NATIVES SINCE 2007; WEEVILS PRESENT IN LAKE CHAMPLAIN
VT05-09L01	MALLETTS BAY - LAKE CHAMPLAIN (Colchester)	AES, ALS, CR, 2CR	EURASIAN WATERMILFOIL INFESTATION	WEEVILS PRESENT IN LAKE CHAMPLAIN
		ALS, CR, DWS	ZEBRA MUSSEL INFESTATION	FIRST CONFIRMED IN 1998. LOCALLY ABUNDANT POPULATION. NO MANAGEMENT. MONITORING BY VTDEC/NYSDEC LAKE CHAMPLAIN LONG-TERM MONITORING PROGRAM.
VT05-10L01	BURLINGTON BAY - LAKE CHAMPLAIN (Burlington)	AES, ALS, CR, 2CR	EURASIAN WATERMILFOIL INFESTATION IN SOME NEAR SHORE AREAS	WEEVILS PRESENT IN LAKE CHAMPLAIN
		ALS, CR, DWS	ZEBRA MUSSEL INFESTATION	ZEBRA MUSSELS ON GEN. BUTLER WRECK; NEARLY ALL SUITABLE SUBSTRATE IN BAY COVERED; EXPANDING ONTO SOFT SUBSTRATE; NATIVE MUSSELS MOSTLY EXTIRPATED

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VT05-10L02	MAIN SECTION - LAKE CHAMPLAIN (South Hero)	ALS, CR, DWS	ZEBRA MUSSEL INFESTATION	NEARLY ALL SUITABLE SUBSTRATE COVERED; EXPANDING ONTO SOFT SUBSTRATE; NATIVE MUSSELS MOSTLY EXTIRPATED
		AES, ALS, CR, 2CR	EURASIAN WATERMILFOIL INFESTATION IN SOME NEAR SHORE AREAS	WEEVILS PRESENT IN LAKE CHAMPLAIN
VT05-11L01	SHELBURNE BAY - LAKE CHAMPLAIN (Shelburne)	ALS, CR, DWS	ZEBRA MUSSEL INFESTATION	NEARLY ALL SUITABLE SUBSTRATE COVERED; EXPANDING ONTO SOFT SUBSTRATE; NATIVE MUSSELS MOSTLY EXTIRPATED
		AES, ALS, CR, 2CR	EURASIAN WATERMILFOIL INFESTATION	WEEVILS PRESENT IN LAKE CHAMPLAIN
VT05-11L02	LAKE IROQUOIS (Hinesburg)	AES, ALS, CR, 2CR	LOCALLY ABUNDANT EURASIAN WATERMILFOIL GROWTH	POPULATION CONFIRMED IN 1990; WEEVIL PRESENT; WEEVIL AUGMENTATION 1996-2011 (CITIZEN)
VT06-05L01	METCALF POND (Fletcher)	AES, ALS, CR, 2CR	LOCALLY ABUNDANT EURASIAN WATERMILFOIL GROWTH	POPULATION CONFIRMED IN 1984
VT06-05L02	FAIRFIELD SWAMP POND (Swanton)	AES, ALS, CR, 2CR	LOCALLY ABUNDANT EURASIAN WATERMILFOIL GROWTH	POPULATION CONFIRMED IN 2008; NO CONTROL
VT06-05L03	FAIRFIELD POND (Fairfield)	AES, ALS, CR, 2CR	LOCALLY ABUNDANT EURASIAN WATERMILFOIL GROWTH	POPULATION CONFIRMED IN 1993; WEEVIL PRESENT; WEEVIL AUGMENTATION 2005 AND 2006 (MIDDLEBURY COLLEGE); ONGOING LOCAL NON-CHEMICAL CONTROL PROGRAM
VT07-03L03	ARROWHEAD MOUNTAIN LAKE (Milton)	AES, ALS, CR, 2CR	LOCALLY ABUNDANT EURASIAN WATERMILFOIL GROWTH	POPULATION CONFIRMED IN 1988; WEEVIL PRESENT; NOTED NATURAL MILFOIL DECLINE IN 1995; WEEVIL AUGMENTATION (98-99)
VT07-08L02	LAKE ELMORE (Elmore)	AES, ALS, CR, 2CR	LOCALLY ABUNDANT EURASIAN WATERMILFOIL GROWTH	POPULATION DISCOVERED IN 2002, ALREADY MODERATE IN DENSITY; ONGOING LOCAL NON-CHEMICAL CONTROL PROGRAM
VT08-01	LOWER WINOOSKI RIVER	AES, ALS, CR, 2CR	LOCALLY ABUNDANT EURASIAN WATERMILFOIL GROWTH	NO CONTROL
VT08-02L01	SHELBURNE POND (Shelburne)		LOCALLY ABUNDANT CURLY-LEAF PONDWEED (POTAMOGETON CRISPUS) GROWTH	POPULATION CONFIRMED 1996; NO CONTROL
VT08-11L02	WATERBURY RESERVOIR (Waterbury)	AES, ALS, CR, 2CR	LOCALLY ABUNDANT BRITTLE NAIAD (Najas minor) GROWTH	POPULATION CONFIRMED IN 2012; NO MANAGEMENT. MONITORING BY VTDEC/NYSDEC LAKE CHAMPLAIN LONG-TERM MONITORING PROGRAM.



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VT11-07	WEST RIVER - RETREAT MEADOWS AREA	AES, ALS, CR, 2CR	LOCALLY ABUNDANT EURASIAN WATERMILFOIL GROWTH	HAND PULLING
VT12-01L02	SADAWGA LAKE	AES, ALS, CR, 2CR	LOCALLY ABUNDANT EURASIAN WATERMILFOIL GROWTH	POPULATION CONFIRMED IN 2006; NO CONTROL
VT13-02	CT RIVER, HOYTS LNDNG, WILDER DAM, TRANSCANADA LAUNCH	AES, ALS, CR, 2CR	LOCALLY ABUNDANT EURASIAN WATERMILFOIL GROWTH	POPULATION CONFIRMED 1995; NO CONTROL ACTIVITIES
VT13-08L01	MILL POND (KENNEDYS POND) (Windsor)	AES, ALS, CR, 2CR	LOCALLY ABUNDANT EURASIAN WATERMILFOIL GROWTH	POPULATION CONFIRMED 1987; LIMITED NON-CHEMICAL CONTROLS
VT14-03L01	LAKE FAIRLEE (Thetford)	AES, ALS, CR, 2CR	LOCALLY ABUNDANT EURASIAN WATERMILFOIL GROWTH	POPULATION CONFIRMED 1995. WEEVILS PRESENT. HERBICIDE TREATMENTS WITH RENOVATE 2010, 2013 AND PROPOSED FOR 2016 AS PART OF 5 YEAR MANAGEMENT PLAN. ONGOING NON-CHEM CONTROLS. STRONG LOCAL SPREAD PREVENTION AND EARLY DETECTION IN PLACE.
VT16-19L03	HALLS LAKE (Newbury)	AES, ALS, CR, 2CR	LOCALLY ABUNDANT EURASIAN WATERMILFOIL GROWTH	POPULATION CONFIRMED IN 1991; WEEVIL PRESENT; ONGOING LOCAL NON-CHEMICAL CONTROL PROGRAM
VT16-20L01	LAKE MOREY (Fairlee)	AES, ALS, CR, 2CR	LOCALLY ABUNDANT EURASIAN WATERMILFOIL GROWTH	WEEVIL PRESENT; NOTED NATURAL MILFOIL DECLINE - 1996; AGGRESSIVE LOCAL NON-CHEMICAL CONTROL PROGRAM
VT17-04L05	LAKE DERBY (Derby)	AES, ALS, CR, 2CR	LOCALLY ABUNDANT EURASIAN WATERMILFOIL GROWTH	POPULATION CONFIRMED IN 2009; ONGOING NON-CHEMICAL CONTROL PROGRAM
VT17-07L01	BROWNINGTON POND (Brownington)	AES, ALS, CR, 2CR	LOCALLY ABUNDANT EURASIAN WATERMILFOIL GROWTH	POPULATION CONFIRMED IN 1986; WEEVIL PRESENT; NOTED NATURAL DECLINE (1989) - LINKED TO WEEVIL POPULATION; MILFOIL POPULATION VARIES WITH WEEVIL POPULATION
VT17-10L01	LAKE ELLIGO (ELIGO POND) (Craftsbury)	AES, ALS, CR, 2CR	LOCALLY ABUNDANT EURASIAN WATERMILFOIL GROWTH	POPULATION CONFIRMED IN 1997; WEEVIL PRESENT; AGGRESSIVE LOCAL NON-CHEMICAL CONTROL PROGRAM ABANDONED IN 2009; WEEVIL AUGMENTATION 2005-2006 (MIDDLEBURY COLLEGE) AND 2007-2008 (CITIZEN)