

Date: July 11, 2025

To: Olin Reed, VT DEC Lakes and Ponds

From: Emily Vulgamore, Project Manager

Cc: Barry Cahoon – Joe's Pond Association

Re: Notification of Herbicide Treatment – Joe's Pond (ANC Permit No. 4534-ANC-C)

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Please accept this as the final treatment plan for the ProcellaCOR™ EC herbicide treatment of Eurasian watermilfoil (*Myriophyllum spicatum*, EWM) in Joe's Pond during the 2025 season.

The attached maps show the final treatment areas for the 2025 season, as well as the proposed FastEST water sample location map for approval. A treatment date of Wednesday, August 13, 2025 is scheduled. All the required pre-treatment notifications and posting of warning signs have been handled by the Joe's Pond Association (JPA). Copies of public notifications are attached.

The pre-treatment survey identifying EWM locations was conducted by Arrowwood Environmental on May 26-28, 2025. Treatment areas were inspected via visual survey and SCUBA.

### **Summary of Treatment Area EWM**

EWM was documented in 44 total locations throughout the Joe's Pond littoral zone. Treatment area A and B both had the highest concentration of EWM within the waterbody. A dense patch was located in treatment area A along with ~15 areas of trace EWM growth (1-3 plants as described by Arrowwood Environmental). Treatment area B had ~20 areas of trace EWM. All growth was limited to the littoral zone except for one trace location outside of treatment area A.

As described in the permit application, we are planning to apply area-selective treatments of ProcellaCOR EC (3 PDU/ac-ft or 5.79 ppb/ac-ft). A copy of the dosing table is provided below:



Site	Description	Acreage	Avg Depth	Volume (Acre-feet)	Rate (PDU/ac-ft)	PDU's
A	Western shoreline	9.30	5	46.5	3	139.5
B	North Cove	13.31	5		3	
<b>Totals</b>		<b>22.619</b>				139.5
	<b>Percentage of littoral zone treated</b>	<b>15.54%</b>			gal	3.49

The liquid ProcellaCORT™ EC herbicide will be diluted with lake water in an onboard mixing tank and applied subsurface using trailing hoses.

The treatment is expected to be completed in half a day beginning at after 12 pm and ending at approximately 3 pm. The boat launch will be the base of operations.

Permit condition compliance will occur. Notification of the treatment per Condition 7 has been completed by the JPA. Post-treatment herbicide residue monitoring from the treatment area and from the downstream location per Condition 8 will be conducted by the JPA.

In addition to the proposed herbicide treatment the JPA plans to continue with their volunteer hand-pulling and educational efforts, and may do some DASH and/or hand-pulling work later in the summer.

**Spread Prevention Measures**

Please accept the following as written documentation of the spread prevention measures that we intend to employ, in accordance with the general conditions.

Prior to each treatment, all boats and equipment that will be used in the water will be:

- Inspected and all plants, plant fragments and animals will be removed
- The plug will be removed and the bilge water will be drained
- The boat hull, motor, and all spray equipment that will be placed in the water will be thoroughly washed with “Formula 409 Cleaner Degreaser Disinfectant” or similar and rinsed with a pressure washer

Upon completion of the treatment and once the boat is loaded back onto the trailer, the boat and equipment will be:

- Inspected and all plants, plant fragments and animals will be removed
- The plug will be removed and the bilge water will be drained
- The boat hull, motor, and all spray equipment that was placed in the water will be sprayed with “Formula 409 Cleaner Degreaser Disinfectant” or similar
- The boat and equipment will be more thoroughly washed and re-inspected upon return to its home SŌlitude office and before being used on another waterbody

**Attached Documents**



- 2025 Proposed Management map
- 2025 Wetlands Map
- 2025 FastEST Sample Location Map
- Copy of Arrowwood Environmental 2025 Pre-Treatment Survey Results
- Copy of water-use recommendations poster
- Copy of abutter notice

**Please feel free to contact Emily Vulgamore (508-826-5137, [emily.vulgamore@solitudelake.com](mailto:emily.vulgamore@solitudelake.com)) or Keith Gazaille (508-954-8576, [kgazaille@solitudelake.com](mailto:kgazaille@solitudelake.com)) immediately if you require any additional information for this treatment notice.**

# Figure 1. 2025 Proposed ProcellaCOR EC Treatment Areas

Joe's Pond



### Site Information



Joe's Pond  
West Danville, Vermont

Center: 71°38'38"W 44°N  
Scale: 1:20,140,751

0 500 1,000  
US Feet



### Key

-  2025 ProcellaCOR EC Treatment Areas (22.61 acres)
-  Littoral Zone (145.5 acres)

**Waterbody:** 396 acres

**Littoral Zone:** 145.5 acres

**Total Treatment:** 15.54 % of the littoral zone

### Target Species

Eurasian Watermilfoil  
(*Myriophyllum spicatum*)



### Map Details

**Survey Date:** 2025 by AE

**Map Date:** July 8, 2025

**Prepared For:** Joe's Pond Association

**Map Author:** E. Vulgamore

**Office:** Massachusetts

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# Figure 2. 2025 Proposed ProcellaCOR EC Treatment Areas and Delineated Wetlands

Joe's Pond



### Site Information

Joe's Pond  
West Danville, Vermont

Center: 71°38'38"W 44°N  
Scale: 1:20,140,751

0 500 1,000  
US Feet



### Key

- 2025 ProcellaCOR EC Treatment Areas (22.61 acres)
- VSWI Wetlands
- Littoral Zone (145.5 acres)

**Waterbody:** 396 acres

**Littoral Zone:** 145.5 acres

**Total Treatment:** 15.54 % of the littoral zone

### Target Species

Eurasian Watermilfoil  
(*Myriophyllum spicatum*)



### Map Details

Survey Date: 2025 by AE

Map Date: July 8, 2025

Prepared For: Joe's Pond Association

Map Author: E. Vulgamore

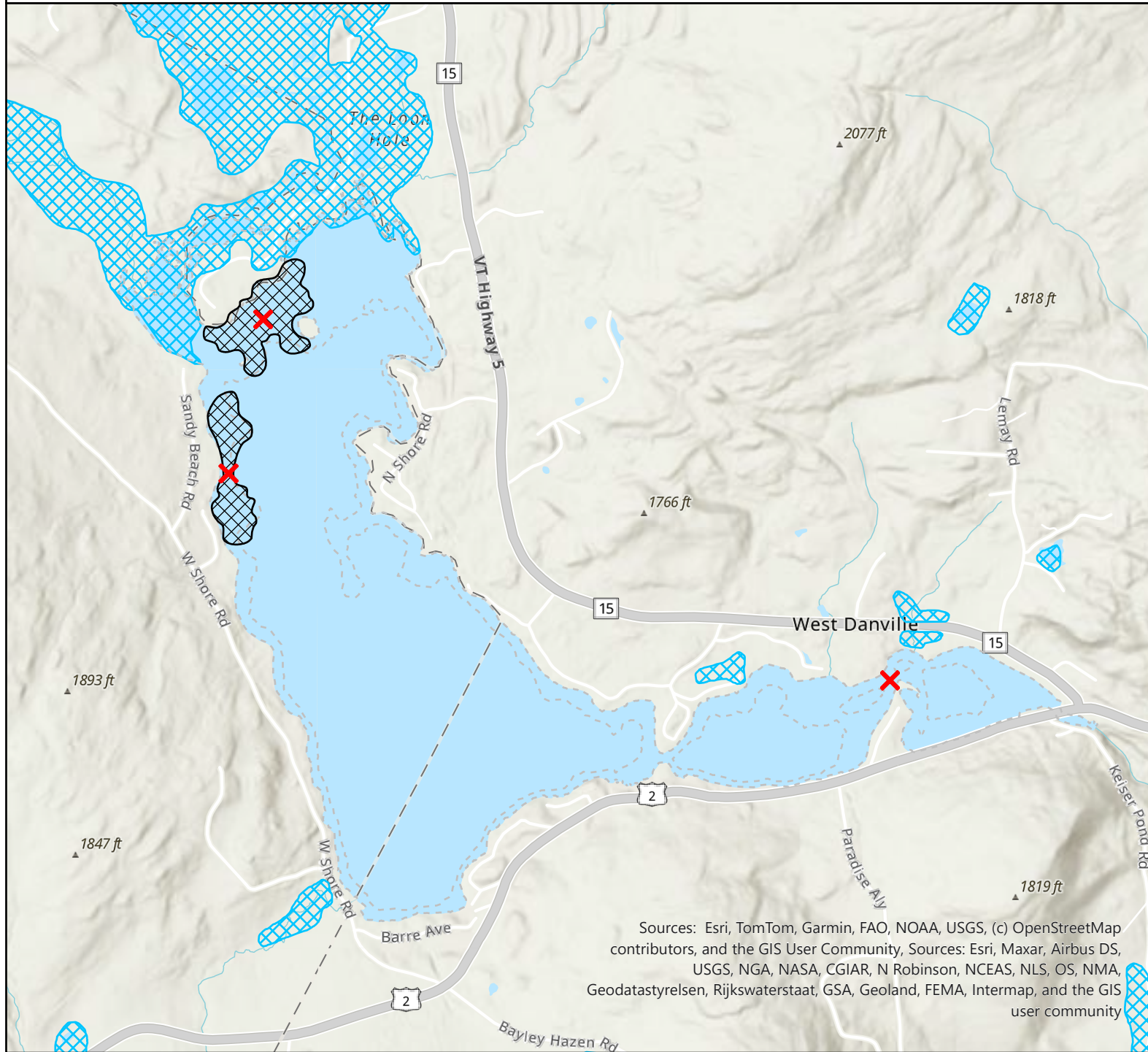
Office: Massachusetts

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LAKE MANAGEMENT  
888.480.5253  
solitudelakemanagement.com

# Figure 3. 2025 FasTEST Sample Locations

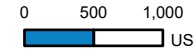
## Joe's Pond







### Site Information

**Joe's Pond**  
West Danville, Vermont

Center: 71°38'38"W 44°N  
Scale: 1:20,140,751



### Key

-  2025 FasTEST Sample Locations
-  2025 ProcellaCOR EC Treatment Areas (22.61 acres)
-  VSWI Wetlands
-  Littoral Zone (145.5 acres)

**Waterbody:** 396 acres

**Littoral Zone:** 145.5 acres

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### Target Species

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### Map Details

**Survey Date:** 2025 by AE

**Map Date:** July 8, 2025

**Prepared For:** Joe's Pond Association

**Map Author:** E. Vulgamore

**Office:** Massachusetts

Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, (c) OpenStreetMap contributors, and the GIS User Community, Sources: Esri, Maxar, Airbus DS, USGS, NGA, NASA, CGIAR, N Robinson, NCEAS, NLS, OS, NMA, Geodastystrelsen, Rijkswaterstaat, GSA, Geoland, FEMA, Intermap, and the GIS user community





## MEMORANDUM

To: Joe's Pond Association

Date: 6/4/2025

From: Michael Lew-Smith, Arrowwood Environmental

Re: Eurasian Watermilfoil

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In 2024, occurrences of Eurasian watermilfoil (EWM) were documented for the first time in Joe's Pond in Danville and Cabot Vermont. In 2025, Arrowwood Environmental (AE) was retained by the Joe's Pond Association to conduct an early season inventory of EWM in Joe's Pond. The purpose of the survey was to identify locations of EWM to target control efforts in the summer of 2025. The field survey took place from May 26-May 28, 2025. This memorandum outlines the methods and results of that survey. AE personnel involved in the survey included Michael Lew-Smith, Eric Hagen and Jeff Parsons. Barry Cahoun from the Joe's Pond Association assisted in the surveys as well.

## Methods

In preparation for field work, the littoral zone of the pond as well as the locations of the previously mapped EWM were uploaded to mobile devices. Two different methods were employed to document the presence of EWM in the pond: visual littoral surveys and underwater SCUBA surveys. The visual survey consisted of viewing the aquatic vegetation from a boat. These surveys were conducted from the bow of a motorboat and, in the shallow northern areas of the third pond, from kayaks. From the motorboat, an approximate 30' wide area into the lake can be observed. From a kayak, an approximate 20' wide area can be observed. This technique appeared to be effective when water was calm and less than 4-5' deep. EWM could be detected with this method in slightly deeper waters if it was growing near the surface.

In order to detect EWM in deeper waters, underwater SCUBA surveys were employed. Two types of SCUBA surveys were used: traditional SCUBA transects and motorboat-assisted transects. The traditional swimming transect was used in the boat launch area and consisted of setting a compass bearing swimming multiple parallel transects until the entire boat launch area was surveyed. This area consisted of approximately 130' X 150'. This area was targeted because of the threat of spread of EWM due to boat traffic. Each EWM location was marked by the placement of a marker buoy.



Where larger underwater transects were required, surveys were conducted by the diver being pulled behind the motorboat at low speeds. Two areas were targeted for these underwater surveys. First, the northwestern shore of the third pond was prioritized because of the presence of EWM in this area documented in 2024. Second, the shallow northern section of the third pond was also targeted. This area received a visual survey in 2024 by Vermont Lakes and Pond program staff, but much of the area has waters deeper than 5' deep and due to limited visibility, EWM at these depths cannot be reliably detected from the surface.

During the motorboat-assisted surveys, if EWM was detected the diver would surface, signal to the boat crew to halt, and deploy a marker buoy at the approximate location of the EWM. In most cases, these occurrences consisted of a single EWM plant. In some cases, multiple EWM plants were present. Since the focus of these surveys was to document the locations of EWM, no attempt was made to conduct a thorough count of plants at these locations. Notes were made during data collection regarding approximate extent (in square feet) of the infestation. Upon completion of the SCUBA transect, the marker buoys were replaced by more permanent buoys and GPS location data was collected.

The GPS-enabled mobile devices running ArcMap allowed tracking the location of both the visual and SCUBA surveys. The generalized track locations representing surveyed areas are shown below in Map 1.

## Results

A total of 44 locations of EWM were documented during the visual and SCUBA surveys, as shown in Map 2 below. All but two occurrences were located in the third pond and most of these were located along the northwestern shore and the northern end of the pond. Only a few EWM plants were located near the populations that were documented and controlled in 2024. This indicates that the 2024 control efforts were largely successful in removing EWM from those areas. In the shallow areas of the northern end of the pond, multiple EWM plants were documented. Given that this area was surveyed in 2024, it is likely that these plants have colonized these areas since that time. The multiple EWM infestations that were documented in deeper areas along both the northeastern shore and in the northern end of the pond may have been present in 2024. Since no deeper water surveys were conducted at that time, it is not possible to know when these became established or how long they have been present.

Each EWM location is listed, along with number of EWM plants and coordinates in Table 1. The only control efforts that took place during this inventory were in the boat launch area. Each of the EWM plants documented in this area were pulled to prevent EWM spread via boat traffic.



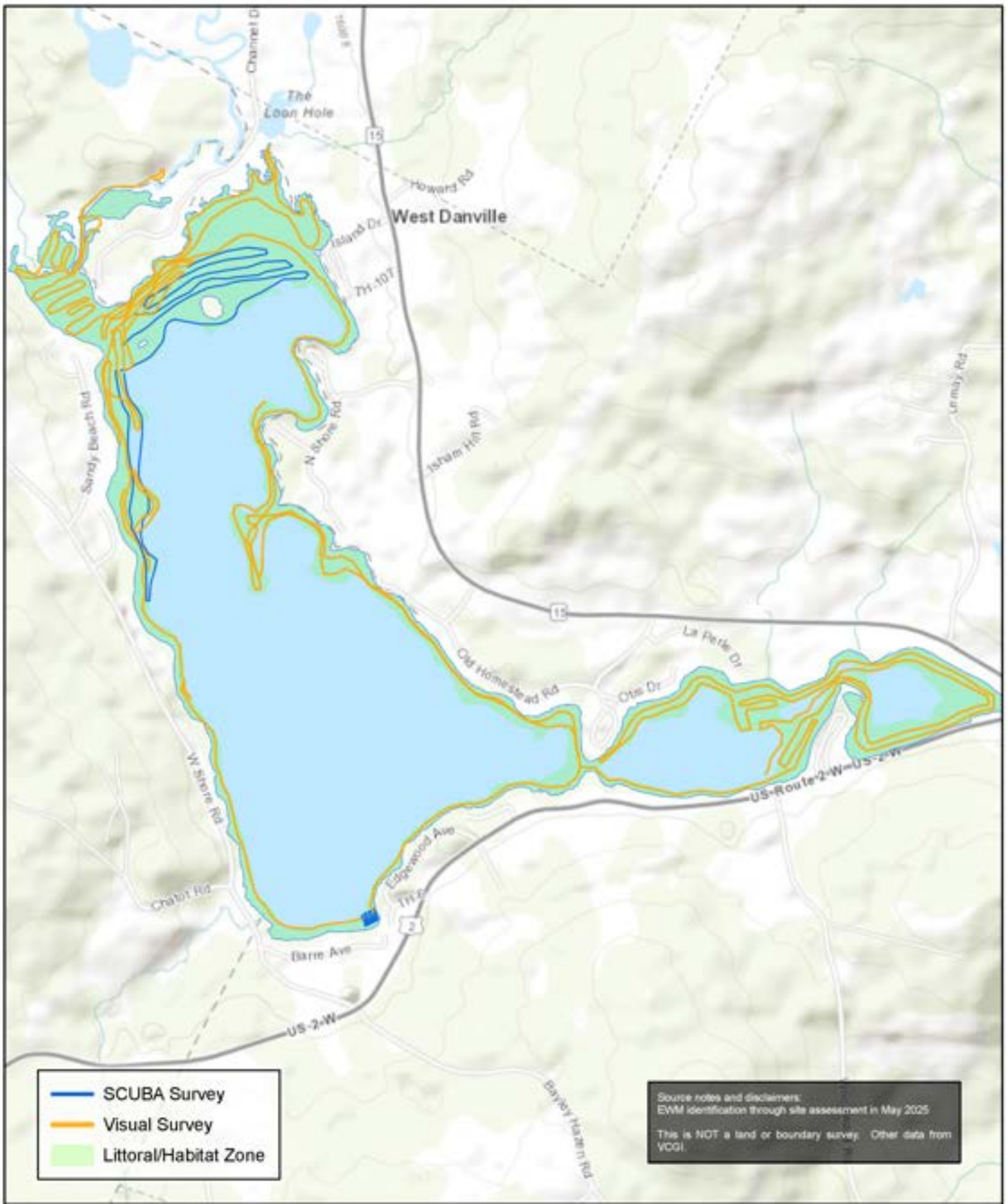
**Table 1. EWM locations May 2025**

Count	Eradicated	Latitude	Longitude
2	Yes	44.403603	-72.219034
1	Yes	44.403638	-72.218651
1	Yes	44.403651	-72.218933
1	Yes	44.40373	-72.218745
1	No	44.407518	-72.204022
1	No	44.40757	-72.203601
2	No	44.413573	-72.227393
1	No	44.413606	-72.226859
2	No	44.413836	-72.226913
1	No	44.413935	-72.226716
1	No	44.414488	-72.227165
1	No	44.414546	-72.227222
1	No	44.41458	-72.226796
1	No	44.415435	-72.227353
1	No	44.415985	-72.227362
Large Patch	No	44.416232	-72.227318
1	No	44.416413	-72.227992
1	No	44.416433	-72.227906
1	No	44.416493	-72.227984
2	No	44.416524	-72.227993
1	No	44.416849	-72.227391
1	No	44.417336	-72.227498
1	No	44.41813	-72.226349
1	No	44.41872	-72.224558
1	No	44.418901	-72.227537
1	No	44.418966	-72.22792
1	No	44.419014	-72.226423
1	No	44.41902	-72.226848
2	No	44.419049	-72.227018
5	No	44.41908	-72.226681
1	No	44.419133	-72.22633
1	No	44.419159	-72.227556
3	No	44.419573	-72.226315
1	No	44.419575	-72.227018
1	No	44.419605	-72.226042
1	No	44.419749	-72.224536



Count	Eradicated	Latitude	Longitude
1	No	44.420061	-72.224801
1	No	44.420091	-72.221073
1	No	44.420147	-72.22508
1	No	44.420341	-72.225997
1	No	44.420365	-72.225672
1	No	44.420384	-72.225638
3	No	44.420751	-72.225169
1	No	44.42076	-72.225049

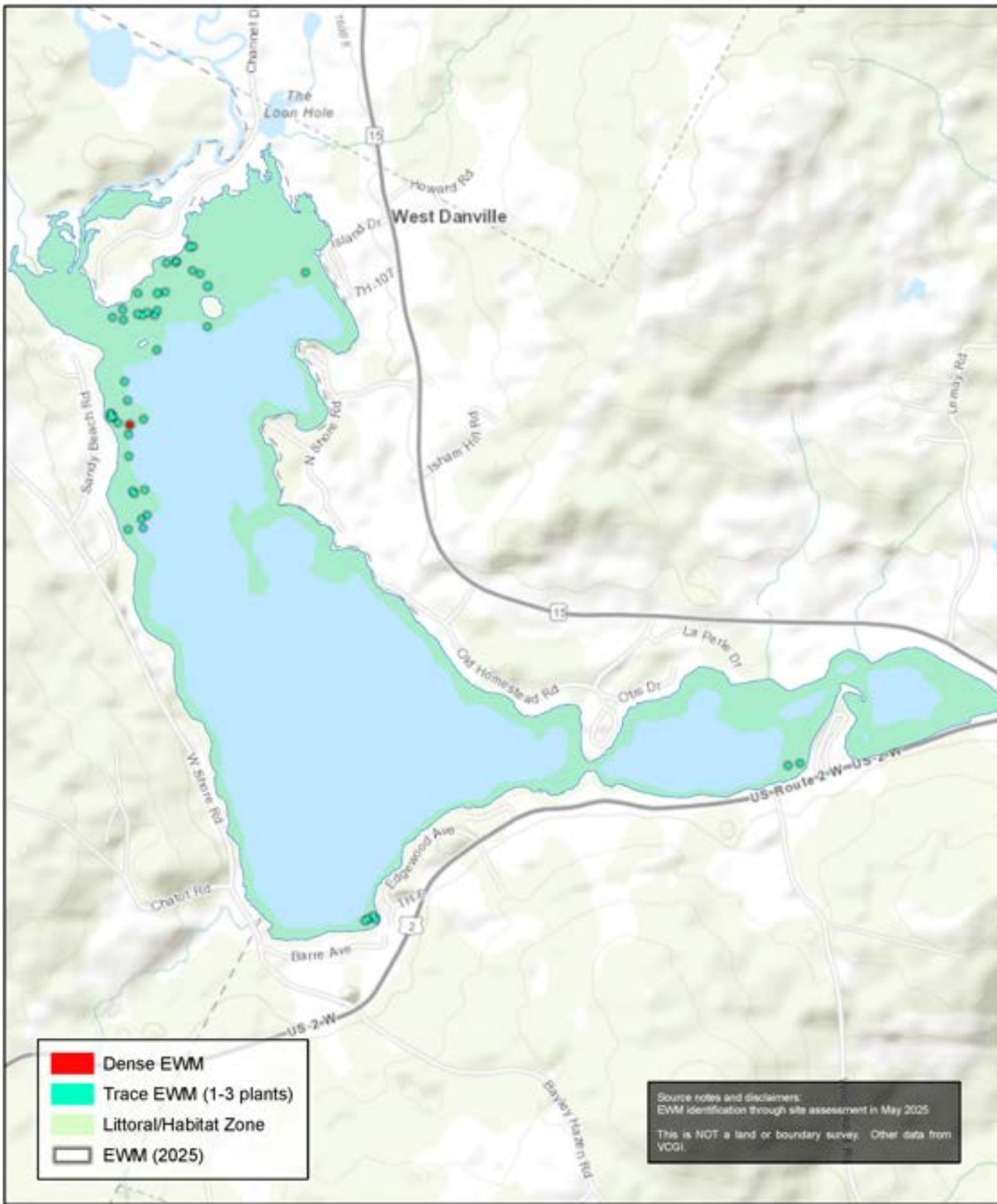
When control efforts are undertaken on these infestations, a broader area around each of these locations should be searched for the presence of EWM. Additional visual and SCUBA surveys should be conducted in 2025 after control efforts have been completed to ensure that all EWM have been removed from the pond.



### Joes Pond: Eurasian Water Milfoil Survey, May 2025

Friday, May 30, 2025 File: JoesPond 8.5x11 EWM May 2025  
 Prepared by: A. Worthley NAD 1983 StatePlane Vermont FIPS 4400





### Joes Pond: Eurasian Water Milfoil Survey, May 2025

Friday, May 30, 2025 File: JoesPond 8 5x11 EWM May 2025  
 Prepared by: A. Worthley NAD 1983 StatePlane Vermont FIPS 4400

0 310 620 930 1,240 Feet



# WARNING

## AQUATIC PESTICIDE IN USE

Due to aquatic herbicide use in Joe's Pond with ProcellaCOR® EC (active ingredient: florpyrauxifen-benzyl), authorized under Aquatic Nuisance Control Permit #4534-ANC-C, the following advisory water use recommendations are in effect for the entire lake and outlet stream.

### LAKE WATER ADVISORY USE RECOMMENDATIONS

- NO USE of Joe's Pond waters and water from the outlet stream FOR ANY PURPOSE including boating, fishing, swimming, domestic (household) use or irrigation, the day of treatment on:

**Wednesday, August 13, 2025, beginning at 12 pm**

- Swimming/wading, boating, fishing and domestic (household) use may resume on:

**Thursday, August 14, 2025, beginning at 3 pm**

- USE of water from Joe's Pond FOR IRRIGATION PURPOSES including for watering lawns, trees, or other plants may resume on:

**Wednesday, August 20, 2025, beginning at 12 pm or earlier based on sampling results, please refer to the website below for results**

Please refer to [www.solitudelakemanagement.com/vermont](http://www.solitudelakemanagement.com/vermont) for additional information and updated water use advisories and recommendations.

Bottled water is available upon request by the Joe's Pond Association (contact information below) to any person restricted from using their domestic water supply for drinking or food or drink preparation on the day of treatment only. Any person who chooses to ignore these use advisories does so at their own risk.

### For additional information contact:

*Emily Vulgamore*  
SOLitude Lake Management  
590 Lake Street  
Shrewsbury, MA 01545  
Office: 508-865-1000

*Barry Cahoon*  
Joe's Pond Association  
PO Box 111  
West Danville, VT 05873  
Cell: 802-535-0049

*Olin Reed*  
Dept. of Environmental Conservation  
1 National Life Drive  
Montpelier, VT 05602  
Phone: 802-490-6121



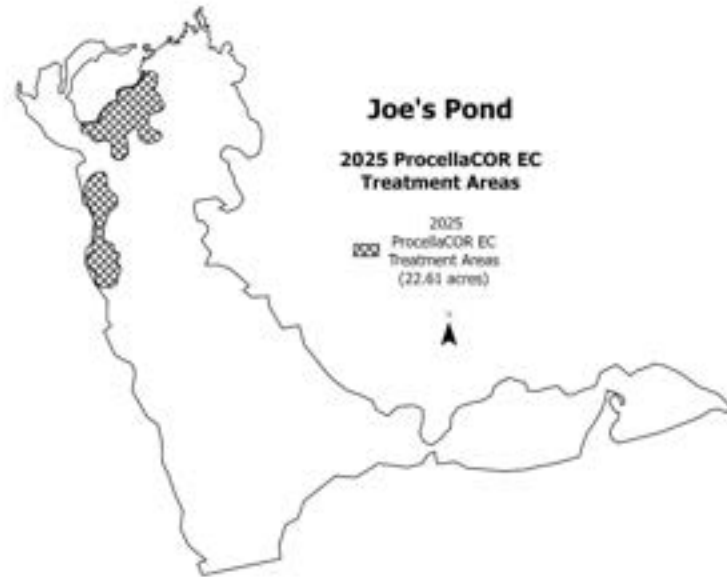
# Advisory Notice and Map

The Joe's Pond Association and SOLitude Lake Management plan to conduct an aquatic herbicide treatment using **ProcellaCOR<sup>®</sup> EC** (active ingredient: florpyrauxifen-benzyl) in Joe's Pond as authorized under Aquatic Nuisance Control Permit #4534-ANC-C.

The target date/time for the treatment is:

**Wednesday, August 13, 2025, beginning at 12:00 pm**

Signs will be posted around the shoreline, along adjacent roadways; the Town Offices; and at all public and private campgrounds and access points with the exact treatment date/time and updated use advisories.



## Lake Water Advisory Use Recommendations

- NO USE of Joe's Pond waters and water from the outlet stream FOR ANY PURPOSE on the day of treatment including boating, fishing, swimming, domestic (household) use, or irrigation.
- Swimming/wading, boating and fishing may resume 24 hours after completion of treatment.
- NO USE of water from Joe's Pond and from the outlet stream FOR RESIDENTIAL AND OTHER NON-AGRICULTURAL IRRIGATION beginning the day of treatment and continuing until notification is provided that the active ingredient in SePRO ProcellaCOR<sup>®</sup> EC is at or below 2 parts per billion OR until after a 7-day waiting period has passed, whichever is longer. Established turf may be irrigated immediately after treatment.

The exact duration of the above recommendations on this Notice is subject to change. Please refer to the posted signs and the website listed below for up-to-date information regarding water use recommendations. Bottled water is available upon request by the Joe's Pond Association (contact information below) to any person recommended from using its domestic water supply for drinking or food or drink preparation on the day of treatment only. IF A RESIDENCE OR PROPERTY IS LEASED, RENTED OR USED at any time after the initial treatment until December 31, 2025, the property owner is responsible for informing all tenants of the treatment and these advisory water use recommendations. Any person who chooses to ignore these use advisories does so at their own risk.

Please refer to [www.solitudelakemanagement.com/vermont](http://www.solitudelakemanagement.com/vermont) for additional information and updated water use advisories and recommendations.

## For additional information contact

Emily Vulgamore  
SOLitude Lake Management  
590 Lake Street  
Shrewsbury, MA 01545  
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Joe's Pond Association  
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