

## **Testimony from Beth Torpey (Seymour Lake) regarding S.75**

First of all, I would like to applaud the efforts of the Senate in bringing some enforcement attention to the problem of invasive species proliferation in the State of Vermont and I appreciate all efforts to help our individual waterbodies in the fight to protect our water quality.

I've been involved with the invasive species program in VT since the first grant cycle in 1999, when I wrote the first invasive species prevention grant for Seymour Lake. A model that is still being used today. In addition to experience with the development of programs and grant writing, I also worked for three years as a Greeter at Lake Willoughby, which is impaired with Eurasian Watermilfoil. Currently, I've managed the Aquatic Invasive Species Prevention Program at Seymour Lake since 2013 and have worked as a greeter there. I'm pleased to report that Seymour is invasive species free after 16 years of a successful program.

As I understand it, S.75 requires that watercraft:

1. Be visually inspected when leaving a water body and
2. Undergo a "boat wash" prior to launching if the destination water body has a boat wash facility, is being transported from another water body and the boat wash facility is available for public use.

While these are admirable goals for some specific waterbodies, this "one size fits all" solution may not be applicable to the variety of situations found throughout the state.

**In relation to #1, the required visual inspection.** This tenet doesn't take into account waterbodies that are currently invasive species free. Visual inspection of watercraft leaving an invasive species-free water body is not only unnecessary it can put a strain on limited resources during busy times. (Attachment A - shows the frequency of boat traffic on a busy day). On the other hand, visual inspection of watercraft leaving invasive species impaired waterbodies is crucial as I can testify from my experience as a greeter at Lake Willoughby. There were days there, when the water level was low, that every single watercraft leaving the access area had Eurasian milfoil fragments somewhere on the trailer or boat. Removal of these fragments is very important, particularly if the watercraft's next destination is a waterbody without a greeter program.

**#2. The use of the term "Boat washing"** does not appear to be defined within the scope of S.75; however, it would seem as if this action would entail the washing of the exterior of a watercraft. While the concept of washing the exterior of a watercraft had previously been considered an effective precautionary measure for invasive species prevention, scientific studies (Dr. Tim Mihuc, SUNY) as well as experienced professionals have indicated that a mere exterior cleaning is not sufficient.

For example, Shadow Lake has had a boat wash station for many years, which was the gold standard and the envy of other greeter programs and managers (myself included);

however, recent information indicates that a targeted decontamination is more effective than exterior washing.

It should be noted here that the prevention measures for plant and animal invasive species are different. Visual inspection is an extremely effective method for plant invasive species detection, particularly with properly trained and dedicated greeters. A “boat washing” may not fully remove a piece of invasive plant from pinch points (i.e. between the boat and the trailer) or unwind it from the impeller of a jetski.

For animal invasive species, such as the zebra mussels or spiny water flea, a targeted watercraft decontamination, using hot water, is recommended due to the resilience and persistence of the different life cycles of these invasives. For example, zebra and quagga mussel veligers (part of the reproductive cycle where it’s free floating prior to attachment to surfaces) can remain viable in standing water (i.e. a live well, motor intake, ballast) for up to one month. They can also reproduce when the water temperature is just over 50 degrees F, which is a good part of boating season in many of our water bodies. The spiny water flea has a “resting egg” segment of their life cycle that can remain viable for decades in a benthic (bottom sediment) substrate.

Additionally, research has indicated that the animal reproductive cycle efficacy is not diminished unless the water is heated to greater than 140 degrees F. The amount of time removed from the previous water body is also important as it determines length of time for hot water exposure. For example, if the watercraft has been out of the water for more than two to three weeks, a two to three second exposure is recommended. If it’s just out of an impaired water body, 10 minutes of exposure is recommended.

Because of the threat of animal invasives, such as the spiny water flea and zebra mussel, Seymour Lake has recently acquired a boat decontamination station and has carefully crafted a policy for decontamination of at-risk watercraft in conjunction with experienced and expert personnel from VTDEC.

While we haven’t solidified a Standard Operating Procedure yet, the following generally represents our watercraft decontamination process:

- ❖ Determine most recent water body. Since each greeter has a list of impaired waterbodies with the type of impairment on the clipboard, inquiring about the last water body visited helps the greeter to determine whether visual inspection is adequate or a full decontamination procedure is necessary.
- ❖ If a watercraft is determined to come from a water body that is considered “at-risk” (i.e. has animal invasive species, such as the Spiny Water Flea or Zebra/Quagga Mussels), full boat decontamination is performed. The process includes running water that is heated to over 140 degrees F through live wells, outboard motor intakes, inboard motor intakes, fishing equipment, anchors and any other part of the watercraft that may be considered at risk. This decontamination requires a knowledge of the mechanics of different types of watercraft, particularly jetskis and the newly popular jet boats. This process can

take up to 15 minutes, if the equipment is operating properly. A reminder checklist of target areas is used to ensure proper decontamination (Attachment B).

It should also be noted that different water bodies have different resource availability, volume of visits and access issues. The Seymour Lake fishing access is very large and has two operating boat ramps. If we were required to “wash” each boat that launches from the Seymour access, additional personnel would be necessary. This would include a significant increase of cost, which could double or triple our budget. This process would also be pulling in a considerably greater volume of water from the lake, with ensuing mechanical issues regarding sediment disruption of pumps as well as the problem of infiltration of wash water.

There are also the issues of permit restrictions for use of equipment on state property. Permanent structures are not allowed, so electricity is not available to us at our location. Landline telephone is also inaccessible and cell signal is not reliable here. We’ve already had challenges regarding the distance from the lake that the battery-operated pump has to pull the water and we’re still in the process of becoming fully operational.

Requiring the “washing” of all boats entering our water body, without additional financial support could be seen as an unfunded mandate. Our targeted decontamination makes more sense both scientifically and from a resources perspective.

There is also the statement about “the boat wash facility is available for public use” (P. 5, line 3). If the boat decontamination station at Seymour should be made available for public use, there are safety issues with the use of equipment with heated water as well as liability issues. Our greeters are trained each season in operation and safety measures, including the use of Personal Protective Equipment (PPE), with advice from the VT League of Cities and Towns, Loss Prevention Specialist. Allowing the public to use this equipment seems fraught with difficulties and it’s unlikely this use would be insurable.

**In relation to the enforcement** of the prohibition on transport of aquatic plants and nuisance species, I see that any law enforcement officer is capable of being the enforcing the regulation. Unfortunately, when a watercraft tries to enter a waterbody with visible, transported invasive species present, a law enforcement officer is seldom present. At an access like Seymour where cell signal is unreliable, a considerable amount of time could pass before law enforcement could attend and the opportunity for observation of the incident would be long gone. There are also concerns for the safety of the greeter in the instance of angry boaters. **And this absolutely does occur.** Since I’m not familiar with how this provision would be enforced, I’m wondering if the greeter could deny access in such a situation until a law enforcement officer could be present. Or if a greeter’s testimony (including photos) would be admissible for enforcement proceedings. I don’t believe that it’s necessary for greeters to have enforcement authority; however, some sort of backup would be extremely helpful. Because this is such an important issue, it appears as if additional clarification is necessary in relation to enforcement responsibility and mechanisms, particularly in relation to the safety of greeters.

In closing, inspection of watercraft leaving waterbodies *that are impaired with invasive species* is recommended as well as *targeted decontamination* for waterbodies with decontamination stations. The *ability of a greeter to deny access* to watercraft that are visibly transporting invasive species, until attendance by law enforcement personnel is also something that would be highly desirable. From a program manager's perspective, the pertinent issues are the additional cost of staffing, liability regarding the public use of our equipment and greeter safety.

Thank you for your time in considering my comments and thank you for your interest in protecting the beautiful resources of our state. I'll be happy to take questions.

## Attachment A Greeter Sheets

(indicates intensity of volume on busy days)

2016 Seymour Lake Boat C Program Data Sheet

Greeter Program: Water body: Seymour Lake Weather AM: Clear 52° Date: 9/15/2016

\*\* SHIFT: 6:00 to 012:00 V; 12:00 to 6:00 pm V; (S: sunny, PS: Partly Sunny, PC: partly cloudy, C: cloudy, O: overcast, SH: showers, R: rain, SF: snow flurries, SN: snow, I: ice)

Greeter: AM Lisa Foster PM                      Weather PM: Sunny a bit

B totals

Labor Day

Time	L R	Boat Type	Boat Registration #	Last Water body Visited (Name, Town/State)	At risk water body in last 2 wks? (if Y, Form C)	Boater Knows AIS? (Y/N)	Did You Inspect Boat? (Y/N)	Plant or Animal Material Found (Y/N)? if "N" indicate Species ****	Sampler? (Y/N) ****	Comments
1 10:35	V	FM	VT 5528N	Seymour	N	Y	Y			
2 7:00	V	FM	VT 471K	W. Hillborough	N	Y	Y			
3 9:30	V	FM	VT 470L	Ch.umpscott	Y	Y	Y			Several weeks ago
4 9:55	V	P	VT 290L	Seymour	N	Y	Y			1 month ago
5 10:10	V	FM	Gaston SX 175	Seymour	N	Y	Y	Demom picked from op		
6 10:28	V	M	VT 666P	Seymour	N	Y	Y			
7 10:41	V	M	VT 4569P	Seymour	N	Y	Y			
8 10:53	V	P	VT 5525	Seymour	N	Y	Y			
9 11:05	V	FM	VT 3163L	Seymour	N	Y	Y			
10 11:11	V	P	VT 4931B	Seymour	N	Y	Y			
11 11:16	V	M	VT 6722P	Seymour	N	Y	Y			4 weeks ago
12 11:20	V	P	VT 533T	Seymour	N	Y	Y			
13 11:25	V	P	VT 940L	Seymour	N	Y	Y			
14 11:45	V	P	VT 4001T	Seymour	N	Y	Y			1st launch!
15 11:49	V	M	VT 951C	Seymour	N	Y	Y			
16 11:55	V	FM	VT 2471K	Seymour	N	Y	Y			
17 11:56	V	M	VT 1551P	Seymour	N	Y	Y			
18 12:00	V	FM	VT 5828N	Seymour	N	Y	Y			
19 12:08	V	FM	VT 7284G	Seymour	N	Y	Y			@ Lodge was here 3 weeks
20 12:10	V	J	VT 5519R	Origo	N	Y	Y	clean		

At risk water bodies include: Lakes Champlain, George and Bohmosen

\*\*L = Launch; R = Retrieval; use an X or V in the appropriate column

\*\*\*Boat type: M = Motorboat; J = Jet ski; S = Sailboat; C = Canoe; K = Kayak; R = Rowboat (no motor); P = Pontoon; FM = Fishing Motor Boat; OB = Outboard; IB = Inboard

\*\*\*\*EWM = Eurasian Watermillfoil; WC = Water Chestnut; CLP = Curly-leafed Pondweed; ZM = Zebra Mussel; BN = Brittle Nalad; VLM = Variable-leafed Watermillfoil;

\*\*\*\*\*SWF = Spin Water Flea; QM = Quagga Mussel; Or WRITE IN ANY OTHER SPECIES; Subm photo and/or Sample if NOT SURE

\*\*\*\*\*Sample = 1 sample submitted, N if no sample submitted and identified in field



	Time	L ***	R ***	Boat Type ***	Boat Registration #	Last Water body Visited (Name, Town/State)	At risk water body in last 2 wks? (if Y, Form C)	Boater Knows AIS? (Y/N)	Did You Inspect Boat? (Y/N)	Plant or Animal Material Found (Y/N)? If "Y" indicate Species ****	Sampler? (Y/N) ****	Comments
21	12:12		V	M	VT5306	Seymour	N	Y	Y	N		Time Out
22	12:15	V		M	VT4055N	Seymour	N	Y	Y	N		
23	12:17	V		FM	VT387514	Seymour	N	Y	Y	N		
24	12:25	V		M	VT4658K	Seymour	N	Y	Y	N		
25	12:30	V		J	VT7982K	Seymour	N	Y	Y	N		
26	2:35	V		FM	VT4470L	Seymour	N	Y	Y	N	VT4470L	
27	12:38	V		FM	VT0507	Seymour	N	Y	Y	N		
28	12:52	V		FM	VT1455F	Average	N	Y	Y	N	2 observed	Observed on leader Huge Catfishes
29	1:05	V		FM	VT7718T	Seymour	N	Y	Y	N		
30	1:10	V		M	VT5067	Field	N	Y	Y	N		
31	1:14	V		P	VT581L	Maggie	N	Y	Y	N		1 with eye
32	1:16	V		FM	VT725R	Seymour	N	Y	Y	N		
33	1:30	V		FM	VT1455F	Seymour	N	Y	Y	N		
34	1:33	V		FM	VT7083G	Walden Pond	N	Y	Y	N		
35	1:46	V		M	VT2186H	Seymour	N	Y	Y	N		
36	2:08	V		FM	VT12815H	Seymour	N	Y	Y	N		
37	2:07	V		M	VT5803AL	Seymour	N	Y	Y	N		
38	2:19	V		FM	VT2883T	More Dam	N	Y	Y	N		
39	2:20	V		FM	VT902C	Seymour	N	Y	Y	N		
40	2:23	V		M	VT5347	Seymour	N	Y	Y	N		
41	2:20	V		FM	VT5399R	Seymour	N	Y	Y	N		
42	2:25	V		FM	VT5370	Maggie	N	Y	Y	N		Trade
43	2:45	V		K		Green Hill of river	N	Y	Y	N		
44	2:46	V		PTB		Little River	N	Y	Y	N		
45	2:46	V		J	VT8634T	Seymour	N	Y	Y	N		
46	2:47	V		K		Little River	N	Y	Y	N		
47	2:48	V		K		Little River	N	Y	Y	N		
48	2:49	V		E		Seymour	N	Y	Y	N		
49	2:49	V		C		Seymour	N	Y	Y	N		

131910

2016 Seymour Lake Boat G

Program Data Sheet

Greeter Program: Water body: Seymour Lake

Weather AM: Mostly Sunny Date: 9/15 /2016

\*\* SHIFT: 6:00 to 012:00 ✓ 12:00 to 6:00 pm ✓

Weather PM: Mostly Sunny

Time	L R	Boat Type	Boat Registration #	Last Water body visited (Name, Town/State)	At risk water body in last 2 wks? (if Y, Form C)	Boater Knows AIS? (Y/N)	Did You Inspect Boat? (Y/N)	Plant or Animal Material Found (Y/N)? if "Y" indicate Species *****	Sample? (Y/N) *****	Comments
1 8:00	✓	FM	VT8252T	Seymour	Y					
2 8:00	✓	M	VT0504R	Seymour	Y					
3 8:13	✓	FM	VT0033P	Seymour	Y					
4 8:17	✓	J	VT7922K	Seymour	Y					Log
5 8:45	✓	F	VT883T	Seymour	Y					
6 4:10	✓	M	VT485L	Seymour	Y					
7 4:15	✓	IM	VT4204U	Windsor	Y					
8 4:13	✓	FM	VT8020	Seymour	Y					
9 4:20	✓	P	VT881L	Seymour	Y					
10 5:50	✓	F		Seymour	Y					
11 5:55	✓	K		Seymour	Y					
12 5:05	✓	FM	VT5194H	Windsor	Y					
13 5:05	✓	OB		Seymour	Y					
14 5:07	✓	K		Seymour	Y					
15 5:08	✓	K		Seymour	Y					
16 5:08	✓	K		Seymour	Y					
17 5:07	✓	K		Seymour	Y					
18 5:09	✓	K		Seymour	Y					
19 5:10	✓	C		Seymour	Y					
20 5:20	✓	FM	VT485N	Seymour	Y					

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Page #2





